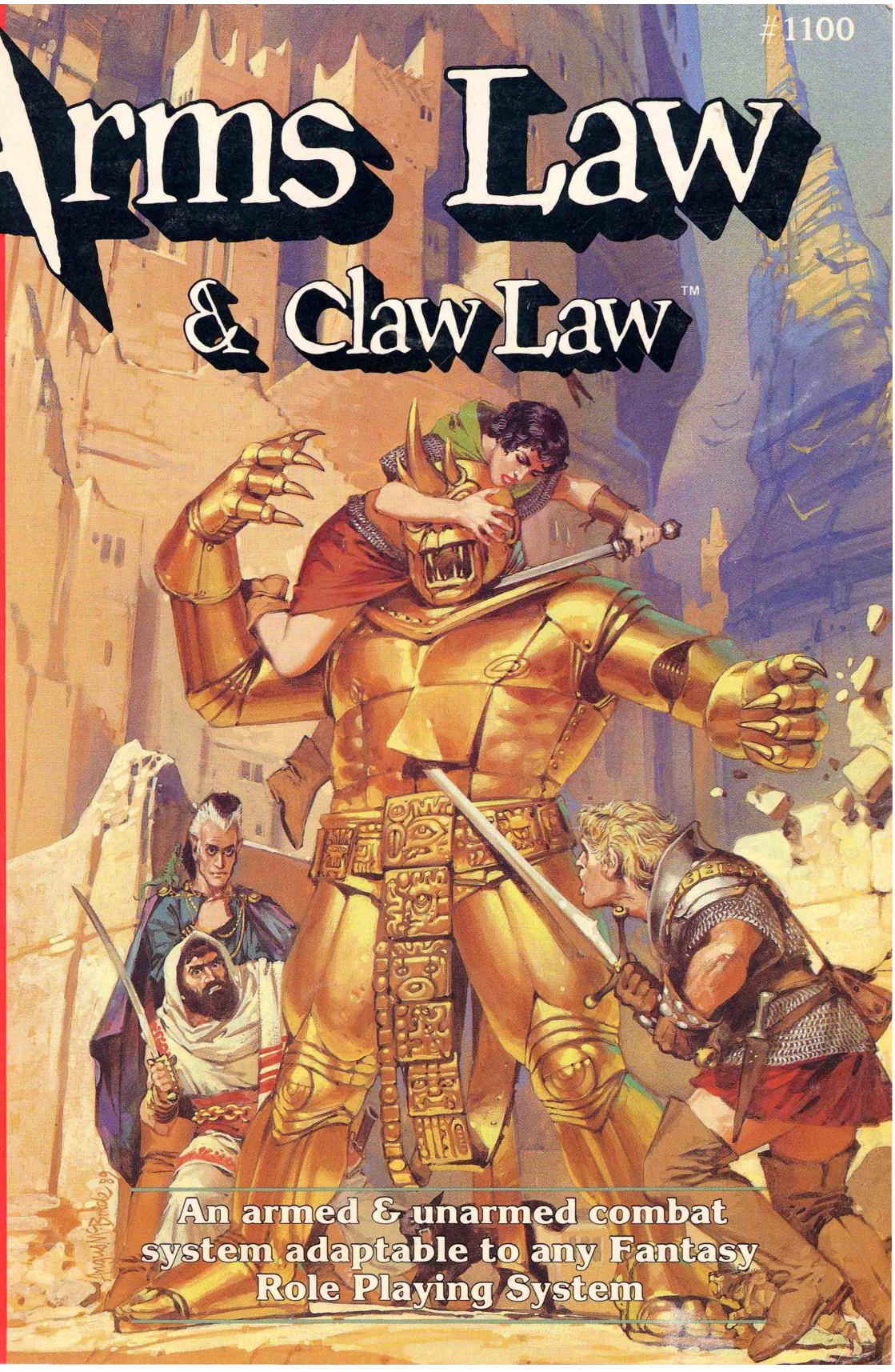
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Arms Law & Claw Law™



An armed & unarmed combat system adaptable to any Fantasy Role Playing System

I.C.E.®

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ARMS LAW & CLAW LAW™

Designers:
S. Coleman Charlton, Kurt H. Fischer, Peter C. Fenlon Jr., Terry K. Amthor, Bruce R. Neidlinger, Bruce C. Shelley, Leonard "Swamp" Cook

Cover Art: Angus McBride

Interior Art: Shawn Sharp

Additional Art & Graphics: Richard H. Britton, Gail McIntosh

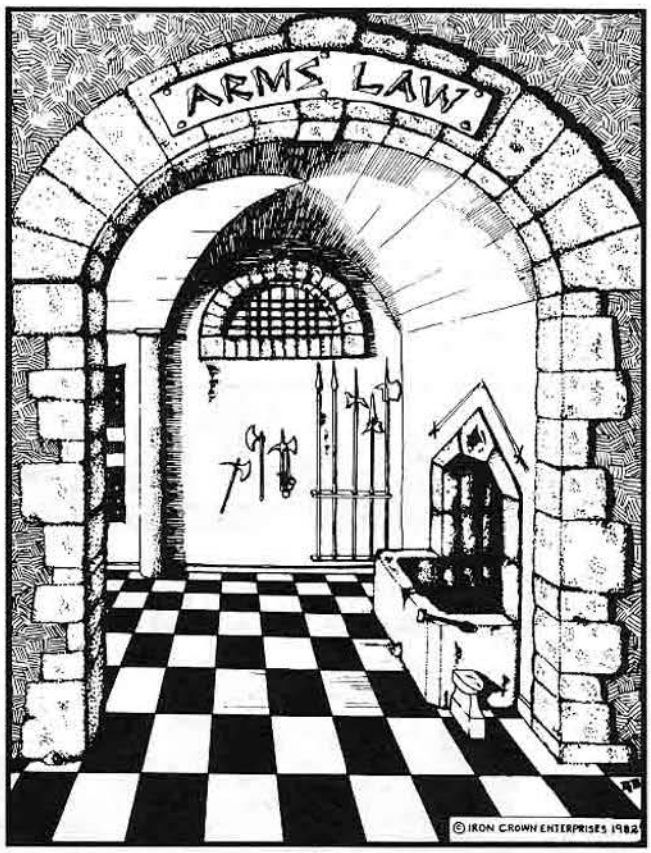
Project Specific Contributions: *Editor:* Coleman Charlton; *Layout:* Eileen Smith, Cheryl Kief, Andrew Christensen; *Cover Graphics:* Cheryl Kief; *Pagemaking:* Kevin Williams, Suzanne Young, Leo LaDell, Coleman Charlton; *Editorial Contributions:* Kevin Barrett, Pete Fenlon, Terry Amthor; *Proofreading:* Chet "Uh, that's Chad" Brinkley, Eileen Smith, Andrew Christensen, Cheryl Kief, Kevin Williams.

ICE MANAGEMENT — *Production Manager:* Terry Amthor; *Sales & Customer Service Manager:* Deane Begiebing; *Art Director:* Richard Britton; *Editing & Development Manager:* Coleman Charlton; *President:* Peter Fenlon; *Marketing Manager:* John Morgan; *CEO:* Bruce Neidlinger; *Controller:* Kurt Rasmussen.

ICE STAFF — *Licensing:* Kurt Fischer; *Print Buyer:* Bill Downs; *Production Supervisor:* Suzanne Young; *Art & Graphics Staff:* Haynes Sprunt; *Editing & Development Staff:* Terry Amthor, Kevin Barrett, Rob Bell, Andrew Christensen, Pete Fenlon, Jessica Ney, John Ruemmler, Chad Brinkley; *Production Staff:* Larry Brook, Kevin Dalton, Cheryl Kief, Jennifer Kleine, Leo LaDell, Paula Peters, Eileen Smith, Laura Tuley, Kevin Williams, Suzanne Young. *Operations Staff:* Marc Rainey; *Sales & Customer Service Staff:* John Brunkhart, Heidi Heffner, Becky Pope, *Shipping Staff:* John "Frat" Breckenridge, Robert "Crennie" Crenshaw, David "Big Dave" Johnson, Corey "EU" Wicks.

PLAYTESTING — Olivia H. Johnston, Larry E. Simms, Bruce C. Shelly, Heike Kubasch, Charles P. Goforth Jr., David B. Sweet, Stephen E. Moffatt, Ward Hagar, Sheldon Price, Gary Eiserman, David Carter, William Stafford, Brenda G. Spielman, Jessica Ney, Mark Strovnik, Ruth Sochard, Bill Bingham, Polly Dixion, Mark & Deane Begiebing, Suzy Maroney, Irene Coons, Jane Halvorsen, Steven and Ann Chu.

SPECIAL CONTRIBUTIONS — Olivia Johnston, Lt. Col. Richard Bailey (USA), Steven E. Moffatt, John David Rummler, Mellissa A. Johnston, Bruce C. Shelley, Tom Williams, David Wagner, Howard Huggins, C^2, and Swinky.



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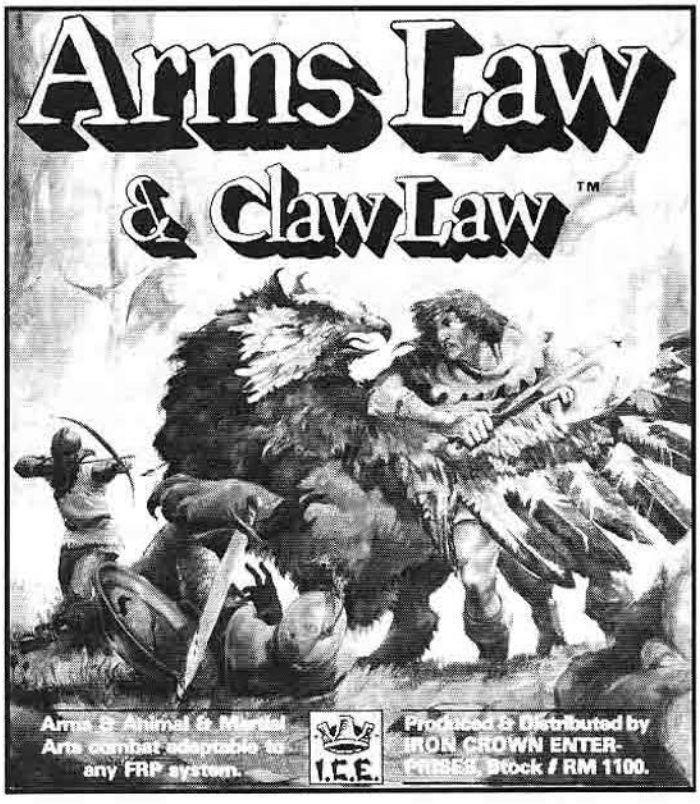
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1.0 INTRODUCTION

Arms Law & Claw Law® deals with the integration of armed and unarmed combat into a fantasy role playing environment. It is designed to be used as as one of the three cornerstones of the ***Rolemaster***™ system **or** as the melee and missile combat system for other FRP games. In the latter case, it can be used as a whole or in parts. Now reformatted and reorganized, 2nd Edition *AL&CL* can add flavor, realism, and depth to your campaign without sacrificing playability.

AL&CL has been designed to provide a logical, detailed, manageable procedure for resolving combat between individuals and small groups. Although this system may be unwieldy for melees involving more than 30 combatants, the guidelines can easily be simplified for such situations.

In addition to the comprehensive set of standard rules, optional rules are provided to provide even greater detail and depth. A Gamemaster should examine each of these rules to determine if it is appropriate for his game and world system.

Certain simplifications and organizational devices have been used to increase playability. Nonetheless, consistence and flavor are emphasized. After all, the world of combat is a exciting one indeed.

Key Features

- A fantastic medieval melee and missile combat system with individual attack tables for thirty weapons and statistics for dozens more.
- A dozen attack tables that integrate the size, instincts, and fighting patterns of a wide variety of animals, monsters, and practitioners of the martial arts .
- Ten Critical Strike Tables for: Slashing, Puncturing, Krushing, Grappling, Unbalancing, Tiny Animal Attacks, Large Creatures, Super-Large Creatures, Martial Arts Striking, and Martial Arts Sweeps & Throws.
- A Fumble table and a Moving Maneuver table.
- Comprehensive rules cover every essential aspect of armed and unarmed combat in a FRP environment: fumbles, parrying, moving, maneuvering, critical damage, initiative determination, orientation, armor, and much more.

The Tables

The *Arms Law* tables are organized by a numbering system that begins with "8."; while the *Claw Law* tables are organized by a numbering system that begins with "11." This numbering system is the result of the fact that the two parts were originally published as separate products: *AL* in 1980 and *CL* in 1982.

This 2nd Edition of *Arms Law & Claw Law* maintains that numbering system even though all of the tables are grouped together by type: i.e., all critical tables together, all attack tables together, etc. In addition, all of the tables are found in back of this product for ease of use. We decided to maintain the original numbering scheme because most of the ICE products in print refer to these tables by the original numbering scheme.

In order to help alleviate some of the problems caused by this organization, we have provided a Table Index found on the last few pages **and** the Table of Contents found on pages 2 and 3.

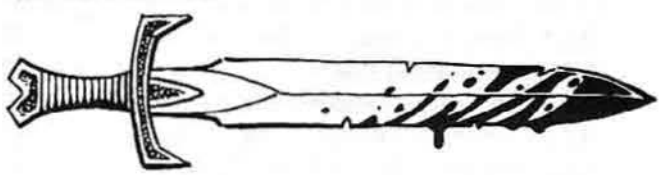
1.1 ROLEMASTER

Rolemaster (***RM***) is ICE's complete fantasy role playing system, combining *Arms Law & Claw Law* (*AL&CL*), *Spell Law*® (*SL*), and *Character Law & Campaign Law*™ (*ChL&CaL*). The "non-boxed" rules in *AL&CL* are designed to be used with the standard ***Rolemaster*** system. The rules in *ChL&CaL* are intended to coordinate and combine all of the individual ***RM*** systems. Thus the rules in *ChL&CaL* should take precedence over the rules in the other individual products when the complete ***RM*** system is used.

Rolemaster has 5 separately indexed sets of rules:

Arms Law & Claw Law ..... (*AL* or *AL&CL*)
Spell Law ..... (*SL*)
Character Law ..... (*ChL*)
Campaign Law ..... (*CaL* or *CpL*)
Rolemaster ..... (***RM***)

In general, a specific rules "section" in ***Rolemaster*** is referenced by using the abbreviation for the appropriate set of rules, the word "Section", and the appropriate section number (or numbers or range of numbers). For example, this text is in *AL&CL* Section 1.0. If a section is referenced without an abbreviation, that section can be found in the same set of rules as the reference. For example, this text is in Section 1.0.



Rolemaster Supplementary Material

Rolemaster is supported by a variety of play aids. Such products can decrease the time and effort required for the creation of an exciting game, and increase the amount of realism and detail obtained during play. These play aids include:

Creatures & Treasure™ (*C&T*) — ICE's compendium of information and statistics for three key elements of fantasy role playing: creatures, treasures, and encounters. It also includes guidelines and statistics for dozens of new races.

The *Rolemaster Companions*™ (*RMC*s) — Compendiums of new spell lists, new professions, new races, new monsters, and a variety of other optional material, rules, and guidelines.

The *Shadow World*™ Series — Modules and adventures in a rich, self-contained fantasy environment designed specifically for use with for ***RM***, but which can be used as isolated or hidden areas in any GM's campaign world.

ICE's *Middle-earth*® Series — A wide variety of rules, guidelines, and modules for use with fantasy role playing in J.R.R. Tolkien's Middle-earth.

Note: *For readability purposes, these rules use standard English grammar when referring to persons of uncertain gender: i.e., masculine pronouns. In such cases, these pronouns are intended to convey the meanings: she/he, his/her, etc.*

1.2 OTHER FRP SYSTEMS

If you wish to use *AL&CL* with another FRP system, just read the material given in the Boxed sections like this one found throughout the rules. These Boxed sections give suggested guidelines and information that are useful when integrating *AL&CL* into your non-***Rolemaster*** FRP game.

In addition, Section 10.0 provides further guidelines for non-***Rolemaster*** GMs; specifically role players who use the AD&D® system*.

** AD&D ® is TSR's trademark for fantasy role playing products, and these references are in no way meant to indicate that ICE has a license from TSR with regard to this or any of our products.*

1.3 DICE ROLLING CONVENTIONS

Each die used in *AL&CL* is a 20-sided dice which gives a result between 0 and 9. If two of these dice are used, a variety of results can be obtained. However, results between 1 and 100 are the primary basis of the *AL&CL* system (i.e., RM is a "percentile" system).

Note: *20-sided dice can be obtained at your local hobby and game stores.*



PERCENTILE ("1-100") ROLLS

1-100 Roll — Most of the rolls in ***Rolemaster*** are "1-100" rolls (also called "D100" rolls). To obtain a 1-100 result roll two dice together — one die is treated as the "ten's" die and the other as the "one's" die (designate before rolling, please). Thus a random result between 01 and 100 (a "00" is treated as 100) is obtained.

Example: *The GM asks a player to make a 1-100 roll. The two dice are rolled; the ten's die is a "4" and the one's die is a "7". Thus the result is "47".*

Low Open-ended Roll — To obtain a "low open-ended roll" first make a 1-100 roll. A roll of 01-05 indicates a particularly unfortunate occurrence for the roller. The dice are rolled again and the result is subtracted from the first roll. If the second roll is 96-00, then a third roll is made and subtracted, and so on until a non 96-00 roll is made. The total sum of these rolls is the result of the low open-ended roll.

Example: *The GM asks a player to make a low open-ended roll, and the initial roll is a 04 (i.e., between 01 and 05). A second roll is made with a result of 97 (i.e., between 01 and 05); so a third roll is made, resulting in a 03. Thus, the low open-ended roll that the GM requested is -96 (= 04 - 97 - 03).*

High Open-ended Roll — To obtain a "high open-ended roll" first make a 1-100 roll. A roll of 96-00 indicates a particularly fortunate occurrence for the roller. The dice are rolled again and the result is added to the first roll. If the second roll is 96-00, then a third roll is made and added, and so on until a non 96-00 roll is made. The total sum of these rolls is the result of the high open-ended roll.

Example: *The GM asks a player to make a high open-ended roll, and the initial roll is a 99 (i.e., between 96 and 100). A second roll is made with a result of 96; so a third roll is made with a result 04. Thus, the high open-ended roll that the GM requested is 199 (= 99 + 96 + 04).*

Open-ended Roll — An open-ended roll is both high open-ended and low open-ended.

NON-"1-100" ROLLS

1-10 Roll — In instances when a result (roll) between 1 and 10 is required, only one die is rolled. This gives a result between 0 and 9, but the 0 is treated as a 10. Such a roll is referred to as "1-10" or "D10".

1-5 Roll — Roll one die, divide by 2 and round up ("1D5").

1-8 Roll — Roll one die; if the result is 9 or 10, reroll until a 1 to 8 result occurs ("1D8").

2-10 Roll — Roll two dice, divide each result by 2 (round up), and then add the two results to obtain the "2-10" ("2D5") result.

Other Required Rolls — Any other required rolls are variants of the above.

UNMODIFIED ROLLS (UM)

Certain results on some rolls indicate an immediate effect and no modifications are considered. These rolls are marked on the appropriate charts with a UM. For example, all weapon attacks result in a fumble if the initial unmodified 01-100 roll falls within the fumble range of the weapon.

2.0 DEFINITIONS

The majority of unique terms found in *AL&CL* are not described below; rather they are usually described when they are used in the text. The terms defined below are frequently used or they are very important for using and understanding *AL&CL*.

Action: An action is the activity which a character may perform during a round (10 seconds).

Attack Roll: A "Roll" that is used to determine the results of a melee or missile attack.

Chance: Often in *AL&CL* an action or activity has a "chance" of succeeding or occurring, and this chance is usually given in the form of # %. This means that if a roll (1-100) is made (see below) and the result is less than #, then the action or activity succeeds (or occurs); otherwise it fails. Alternatively, you can roll (1-100) and add the result to the #; if the result is greater than 100, then the action or activity succeeds (or occurs); otherwise it fails.

Combat Roll: See "Attack Roll."

Concussion Hits: See "Hits."

Critical Strike: Unusual damage due to particularly effective elemental attacks. **Note**: *The term "critical" will often be used instead of "critical strike".*

Defensive Bonus (DB): The total subtraction from the combat roll due to the defender's advantages, including bonuses for the defender's quickness, shield, armor, position, and magic items.

Dice Roll: See "Roll."

Experience Level (Level): A character's level is a measure of his current stage of skill development, and usually is representative of his capabilities and power.

Fire: To make a missile attack (verb) **or** missile attack(s) (noun).

Fumble: An especially ineffective attack or mishandling of a weapon which yields a result that is disadvantageous for the attacker.

Gamemaster (GM): The gamesmaster, judge, referee, dungeonmaster, etc. The person responsible for giving life to a FRP game by creating the setting, world events and other key ingredients. He interprets situations and rules, controls non player characters, and resolves conflicts.

Hits (Concussion Hits): Accumulated damage, pain, and bleeding, that can lead to shock, unconsciousness, and sometimes death (also called Concussion Hits). Each character can take a certain number of hits before passing out (determined by his "Body Development" skill).

Initiative: The factor that determines which the order in which combatants resolve their attacks, i.e., the combatant with the highest initiative attacks first.

Level: See "Experience Level."

Maneuver Roll: A *roll* that is used to determine the results of a maneuver.

Maneuver: An action performed by a character that requires unusual concentration, concentration under pressure, or a risk (e.g., climbing a rope, balancing on a ledge, picking a lock, etc.). Maneuvers requiring movement are "Moving Maneuvers" (MM), and other maneuvers are called "Static Maneuvers" (SM).

Melee: Hand-to-hand combat (i.e., combat not using projectiles, spells, or missiles) where opponents are physically engaged — be it a fistfight, a duel with rapiers, or a wrestling match.

Missile weapon: In ***Rolemaster*** this indicates a low velocity airborne projectile, usually from a manually fired weapon. Such weapons include an arrow from a bow, a quarrel from a crossbow, a stone from a sling, etc. Thrown weapons are also included in this area. Normally, missile weapons do not include projectiles fired by explosions or other high-velocity propulsion means (e.g., guns are "projectile weapons").

Offensive Bonus (OB): Each character has an "offensive bonus" when he is using a weapon — this OB includes bonuses for the character's stats, superior weapon, skill rank, magic items, etc. This OB is added to any attack rolls that are made when he is using that weapon.

Orientation Roll: A *roll* representing a character's degree of control following an unusual action or surprise.

Parry: The use of part of a character's offensive capability to effect an opponent's attack.

Profession (Character Class): A character's profession is a reflection of his training and thought patterns; in game terms, it affects how much effort is required to develop skill in various areas of expertise.

Projectile weapon: As opposed to a missile weapon, this indicates a device which mechanically fires a high-velocity projectile (e.g., a gun).

Realm: All spells and the power required to cast spells are classified in the three "realms" of power: Essence, Channeling, and Mentalism.

Resistance Roll (RR): A dice roll which determines whether or not a character successfully resists the effect of a spell, poison, disease, or some other form of adversity.

Roll: In *AL&CL* two different colored 20-sided dice are used to resolve any activity requiring a "Roll"; such dice are available in most hobby and toy stores. Each of these dice has two sets of the numbers: 0,1,2,3,4,5,6,7,8, and 9. These dice can be used to obtain a variety of results. These various results are described in Section 1.3.

Round: The time (10 seconds) required to perform one action.

Self-reloading: Refers to any weapon which reloads (or recharges) itself and is ready for another shot almost immediately (i.e., it is capable of two attacks in the same round). Most projectile weapons fall into this category, while normal bows and thrown weapons do not. Normally self-reloading weapons only occur in FRP games in the form of magic items.

Shot: A missile attack.

Skill: Training in an area which influences how effectively a character is able to perform a particular action or activity. "Skill Rank" is a measure of the effectiveness of a specific skill.

Stat (Characteristic): One of 10 physical and mental attributes which are considered most important to an adventurer in a FRP game. Stats dictate how well a character develops his skills, moves, fights, takes damage, absorbs information, etc.

Static Action (Static Maneuver): An action performed by a character which requires unusual concentration, or thought under pressure, and does not involve pronounced physical movement.

Swing: A melee attack (noun) **or** to make a melee attack (verb).

Target: The term "target(s)" refers to the being(s), animal(s), object(s), and/or material that a melee attack, missile attack, or spell attempts to affect.

3.0 THE TACTICAL COMBAT SEQUENCE

The ***Rolemaster*** tactical combat sequence is based on a time frame of 10 second battle rounds and one minute turns (i.e., 6 rounds equal one turn). Normally, each combatant is allowed one attack roll per round, whether it be a spell, missile (bow and thrown fire), or melee. The rationale behind allowing missile and melee combatants only one roll every ten seconds is that, though he or she may actually swing or fire more often than this, only one effective attack is made in a given round. The other swings/shots are assumed to be nullified by a shield, movement, a weapon, and/or fate.

The basic principle to keep in mind is that each action takes a percentage of a round to complete. For example, one can view a physical attack as at least a 50% activity, casting a spell as a 75% activity, preparing a spell as a 90% activity, and movement as a 0-100% activity. Thus someone that casts a spell may not make another attack.

> The time allotted to each round may vary with the game system and the preference of the GM, but the following sequence of action is recommended with rounds or turn segments of 6 to 10 seconds each.

Changes from 1st Edition AL&CL

2nd Edition *AL&CL* and ***Rolemaster*** assume that missile (bow and thrown weapon) attacks take 50% activity as opposed to the normal 75% for 1st Edition ***RM***. For consistency, both 2nd Edition ***RM*** and ICE's science fiction RPG, ***Space Master***, use this 50% figure with very specific "reloading" times.

Even though they are not normally encountered in an FRP game, allowances have been made for multi-shot (i.e., self-reloading) weapons like revolvers, submachine guns, and plasma repeater rifles. After all, certain magic items might have this capability.



The ***RM*** "Missile" phases are now called "Fire" phases, and there are now two Fire Phases (and of course, two Fire Result Phases). Only hand weapons which do not require reloading may fire in both phases (e.g., not a bow, crossbow, or single shot firearm). Examples are revolvers, automatic pistols, and assault rifles from our world. These weapons can be fired more easily and frequently, and are thus offered two rolls during the round sequence. Details of exactly how self-reloading weapons are to be used are found later in this section. If you do not have self-reloading weapons in your game just ignore Fire Phase (B) and Fire Result Phase (B).

3.1 THE BATTLE ROUND SEQUENCE

The expanded ***Rolemaster*** combat round sequence is shown below, with the new additions asterisked.

1 — Spell Action Phase
2 — Spell Results Phase
3 — Spell Orientation Phase
4 — Fire Phase (A)
5 — Fire Result Phase (A)
6 — Movement/Maneuver Phase
7 — Fire Phase (B) *
8 — Fire Result Phase (B) *
9 — Melee Phase
10 — Melee Result Phase
11 — Final Orientation Phase

Spell Phase

All combatants who will cast (or prepare) a spell during this round must specify any pertinent information to the GM (spell type, target, option to wait for opportunity fire, etc.). If any spells are to be cast/prepared, they would also be specified in this phase.

Spell Results Phase

All "cast" (not prepared) spells specified in the previous phase are resolved simultaneously, unless an exception is indicated by the system or the GM. Effects are applied immediately, except spells held on opportunity.

- Movement/Maneuver is reduced to a maximum of 25% of normal for those who have cast a spell this round, and 10% for those who have prepared a spell.

Spell Orientation Phase

All combatants who performed unusual activities during the previous phase (e.g., Teleportation, Leaving, etc.) must make an orientation roll to determine how well they have adapted themselves to their new surroundings. An exceptionally low roll might incapacitate them for the remainder of the round and prejudice their chance for successful action in the next round, while an exceptionally high roll would indicate the best possible result (intermediate values should be adjusted by the GM if necessary). The GM must determine what constitutes unusual activity within the context of the situation.

Fire Phase (A)

All combatants who will fire during this phase must specify missile type, target/target area, and any other pertinent information. Users of self-reloading weapons (e.g., usually automatic/semi-automatic projectile weapons) are able to fire in both this and Fire Phase B. Users of missile (bow) weapons and thrown weapons may fire in either phase, but only one. Exception: theoretically a character with a throwable weapon in each hand may throw one in Fire Phase (A) and one in Fire Phase (B).

- Spell casters/preparers may not fire.

Fire Result Phase (A)

All missile attacks specified in the previous phase are resolved simultaneously, unless an exception is indicated. All results are applied immediately. In the following phases, all Phase (A) firers have 50% of their activity left and thus may:

- Melee with a -50 mod to OB; or
- Move/maneuver at 50% of normal; or
- Fire normally in Fire Phase (B) (self-reloading weapons only).

Movement/Maneuver Phase

All combatants in play may move up to the maximum of their movement allowance (depending on any activity engaged in during the earlier phases, and the movement system being used, see Section 7.2). Success or failure of an extraordinary maneuver must be resolved as indicated in Section 7.1.

- Normally, drawing a weapon takes 20% of normal activity while changing weapons takes 50% of activity.

Fire Phase (B)

Same as Fire Phase (A), except that a character may not fire if he has done any of the following this round:

- Cast/prepared a Spell.
- Fired in Fire Phase (A) and moved/maneuvered.
- Moved/maneuvered more than 50% of normal allowance.
- Been incapacitated and/or failed an orientation or maneuver roll.

Fire Result Phase (B)

Essentially the same as Fire Result Phase (A).

Melee Phase

All characters may make a melee attack except those who have used more than 50% of their activity for the round. That is, they may not have done any of the following this round:

- Cast or prepared a spell.
- Fired in Fire Phase (A) and moved/maneuvered.
- Moved/maneuvered and fired in Fire Phase (B).
- Fired in Fire Phase (A) and fired in Fire Phase (B).
- Moved/maneuvered more than 50% of normal allowance.
- Been incapacitated and/or failed an orientation or maneuver roll.

Melee Result Phase

Within each group of combatants attempting to melee attack each other, attacks are conducted according to the following sequence:

1) Determine order in which combatants will attack by comparing initiative (Quickness, and other factors, depending on circumstance); see Section 6.1.
2) First combatant attack and result are applied immediately.
3) Second combatant, third combatant, etc., attack and apply results in order.
4) First combatant attacks with any useable second weapon, if any (e.g., he entered melee with a weapon in each hand, he is hasted, etc.).
5) Second, third combatants, etc., attack with second weapon, if any.

Final orientation Phase

In the judgment of the GM, any combatant who has been under significant pressure (e.g., surprise), or has made an unusual maneuver may be required to make an orientation roll, which may affect his ability to act in the next round.

3.2 EXCEPTIONS

Opportunity Action

Combatants may plot *opportunity action* if they wish to perform a combat activity in a following phase of the current round or a following round. For example, a combatant may wish to withhold casting a spell until he sees who is moving where, and then cast. Opportunity action is announced during the correct phase for the desired action. Movement restrictions apply as if the combatant had actually performed the action during the correct phase. A combatant who has planned opportunity action can take no other action (except reduced movement) until the action is performed or cancelled. Opportunity action occurs first in a phase, unless otherwise indicated by the GM.

Example: *During the spell phase, a combatant with a prepared spell announces opportunity spell casting. He may then cast the spell in any of the following phases of this and the following rounds. Until he casts the spell, he may neither melee, fire, nor make extraordinary maneuvers. He is also reduced to 25% of his normal movement until the round after he casts the spell or until he cancels this opportunity action. During a fire phase of some following round, a character attempts to fire a bow. The spell user who has planned opportunity fire now casts his spell, resolving it before the bow may be fired. If the bowman is killed or incapacitated by the spell, the attack will not take place.*

Opportunity Fire

A combatant may claim Opportunity Fire during any phase of the combat round that he would normally be able to fire, and does not (see above). He may then fire normally during a subsequent phase of the same round or a following round (and would resolve his fire before other combatants). Opportunity Fire must be claimed against a known foe (or group of foes in the same location). It may also be claimed against a terrain feature or specific area (like a window, portal, the corner of a building, etc.).

Example: *Nandar is in combat with several minions of Mormiresûl. During Fire Phase (A), he claims Opportunity Fire on a specific minion he knows is hiding behind a big rock. During the Movement and Maneuver Phase of the next round, the minion breaks from cover and tries to run to a gully where all of his buddies are. He never makes it; Nandar throws his dagger during the Movement and Maneuver Phase and drops him.*

Movement is restricted to 25% of normal until the action is taken or cancelled. A combatant who has declared Opportunity Fire may take no other action (except reduced movement) until the Opportunity Fire is performed or cancelled. Opportunity Fire occurs first in any given phase unless otherwise indicated by the GM. No character may fire more than once in a given phase.

Example: *Assume the same situation as given in the example above. However, this time the minion steps out from behind the rock during the Movement and Maneuver Phase, but Nandar holds his Opportunity Fire. The next phase of the combat round is Fire Phase (B). Nandar decides that he wants to take his shot now, and fires (i.e., throws) first. Nandar's player also wants to take his normal Fire Phase (B) shot with the dagger in his other hand, but the GM indicates (quite correctly) that no combatant may fire twice in the same phase. Nandar's player says that is unfair. The GM says (quite correctly) that Nandar's player is unreasonable. The game then quickly degenerates into a fist-fight and next week, Nandar's player doesn't show up to the game.*

OB Penalties From Movement/Maneuver

If a character moves/maneuvers and then fires in Fire Phase (B) or melees in Melee Phase, he takes an OB mod to that attack. The OB mod is -5 for every 5% moved/maneuvered. In order to fire or melee, the character must have moved/maneuvered less than 51% of his normal allowance **and** may not have performed any other activity.

Using Missile Fire While in Melee

Normally, a combatant cannot throw or fire missiles while engaged in melee. For these purposes, a combatant is engaged in melee if:

1) A foe attacked him in the previous melee phase, **and**
2) That foe is still within striking distance (i.e., usually within 5-10'), **and**
3) That foe's action for the current round is to melee the combatant.



3.3 ORIENTATION ROLLS

When required by the GM, a combatant must make an orientation roll to determine his degree of self-control and awareness. The GM must determine the difficulty of the orientation, then the combatant makes the orientation roll in the same manner as a maneuver (see Section 7.1). Failure means disorientation and no further action is allowed for that round. Success means that the combatant is under control and aware of the situation, and may take further action that he would normally be allowed. The stat bonus used for orientation rolls is Intuition and the skill bonus is based on the Perception skill.

Example: *Suppose a minion of Mormiresûl sneaks up on Darien the Dragonlord, who is preparing to cast an illusion spell. During the final orientation phase, the GM directs Darien to make an orientation roll to see if he notices the minion sneaking up behind him. Since the minion made a successful maneuver (a stalking maneuver) to sneak up on Darien, the GM assigns a degree of difficulty of "Very Hard". Darien's roll will be modified by +5 for his good Intuition, by +40 for his Perception skill rank of 8, and by -20 because Darien is unusually unobservant when preparing spells. He rolls a 56 for a net maneuver roll of 81 (56 + 5 + 40 - 20). Cross-indexing on Table 8.2.2, we get a result of* ***"40"****. This means that Darien only has a 40% chance of noticing the minion; Darien makes a second roll of 72 and thus is completely oblivious to the danger approaching him from the rear. The GM should not allow Darien to take any actions to react to the threat of the minion.*

3.4 MOVEMENT CONFLICTS

When two or more combatants attempt to perform conflicting movements or maneuvers (such as two characters who are headed for the same space), the GM may choose to resolve the conflict by having the combatants in question make maneuver rolls (see Section 7.0). If one character succeeds and the other fails, the result is obvious. Otherwise:

- The conflict can be considered a draw, and movement for the involved parties can be terminated at the point of conflict;

or

- The GM can use a comparison of maneuver rolls (higher roll having choice of position) and by common sense. A combination of the two is possible, where one of the characters, due to position, might have an add to his maneuver roll, but phenomenal luck could still beat him.

In these cases of conflicting movement, the GM will have to ultimately decide himself the outcome of the conflict. The maneuver rolls of the involved parties are intended to aid him in his decision.

3.5 CANCELING ACTION

During a round an action declared by a combatant may be canceled before it would otherwise be resolved. A character who has canceled his action may perform one of the following alternative actions:

- Melee with half of his normal OB, **or**
- Move half his normal (not running) movement, **or**
- Make a maneuver modified by -30

The alternative action chosen **must** be performed when the other actions of that type are normally resolved.

3.6 HASTE AND SPEED

Certain spells will modify the normal turn sequence to some degree. The most common of these modifications will be *Haste* (or *Speed*). A person who is hasted will basically have 200% normal activity, but must abide by the sequence restrictions. That is, whatever activity the person takes will have to occur in the proper phase (thus, a hasted person could not move, fight and then move again, denying his adversary the chance to swing back). A hasted person could fire a bow, move, and then melee, **or** attack twice in a melee phase (once at the beginning and once at the end).

- A hasted character may not fire more than twice a round.
- Casting more than one spell/round is still prohibited.

Note: *The effects of Haste on spell casting is covered in SL Section 7.4.*

Note: *Haste also has certain liabilities: e.g., a hasted character expends exhaustion points (see Section 7.2) at double normal rate, a wounded character bleeds at double normal rate, etc. A GM should consider the ramifications of Haste very carefully before using it in his game.*

4.0 DEFENSIVE CAPABILITIES

In combat there are many variables which affect the severity of an attack. The defender has several factors which work in his favor, including: armor, shield, quickness, special items, and the ability to parry (i.e., forgo one's attack effectiveness in the interest of self-preservation). Armor is the basic classification of protection, while all other defensive capabilities are expressed in terms of a Defensive Bonus (DB) which will modify the attacker's combat roll in the defender's favor.

8.2.4 ARMOR TABLE

Armor Type	Minimum Maneuver Mod.*	Maximum Maneuver Mod.†	Missle Attack Penalty‡	Quickness Penalty§
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	-20	5	0
7	-10	-40	15	10
8	-15	-50	15	15
9	-5	-50	0	0
10	-10	-70	10	5
11	-15	-90	20	15
12	-15	-110	30	15
13	-10	-70	0	5
14	-15	-90	10	10
15	-25	-120	20	20
16	-25	-130	20	20
17	-15	-90	0	10
18	-20	-110	10	20
19	-35	-150	30	30
20	-45	-165	40	40

* — Minimum maneuver modification applied to a combatant fully trained in maneuvering while wearing the given armor type. See *ChL* Section 3.4.

† — Maximum maneuver modification applied to a combatant totally untrained in maneuvering while wearing the given armor type. See *ChL* Section 3.4.

‡ — The missile attack penalty acts as a modification to the missile OB for a combatant wearing the given armor. This is meant to reflect the disadvantageous effect of armor worn on the arms of a combatant.

§ — An armor Quickness penalty can reduce or cancel a combatant's Quickness stat bonus for his DB (see Section 4.4.2). Unlike those penalties above, this penalty can only reduce the armor wearer's Quickness stat bonus. It will not reduce a combatant's overall DB below the level that it would be at with a zero Quickness stat bonus.

4.1 ARMOR

Rolemaster armor is the basic protective capability assigned to the material covering the body, and is divided into five categories of four *Armor Types* (ATs) each (for a total of 20 types):

Cloth-Skin Base
Soft Leather Base
Rigid Leather Base
Chain Mail Base
Plate Base

Cloth-Skin Base

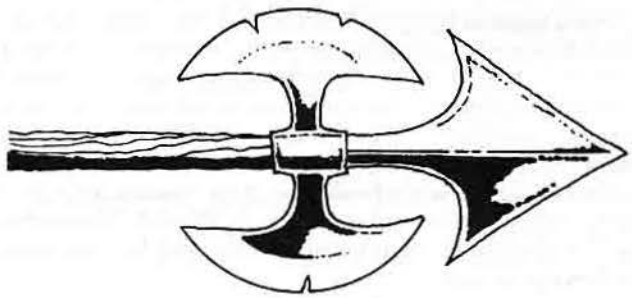
Normal cloth attire, robes, and normal animal hides.

Skin (AT 1): — Normal clothing, assumed if other covering is not specified.

Robes (AT 2): — Full-length robes normally worn by spell users and certain other combatants; e.g., a spell user might wear robes that are his spell bonus item (see *SL* Section 6.1.2).

Light Hide (AT 3): — The natural hide of certain classes of animals, both normal and unusual (e.g., Deer, Dog ,Wolf).

Heavy Hide (AT 4): — The natural hide of certain classes of animals, both normal and unusual (e.g., Buffalo, Elephant, Bear). The Gamemaster will have to decide on the armor type of the creatures that populate his game.



Soft Leather Base

The heavy outer garments normally worn as weather protection by certain civilians and as combat protection by some militia and irregulars. Note that this category of armor was called "Pliable Leather" in earlier editions of *AL&CL*.

Leather Jerkin (AT 5): — A leather vest-like covering without arms and reaching only to the waist or mid-thigh.

Leather Coat (AT 6): — A leather coat covering the arms and to mid-thigh.

Reinforced Leather Coat (AT 7): — A leather coast covering the arms and to mid-thigh, but with either rigid-leather sections or metal sections sewn in for reinforcement.

Reinforced Full-Length Leather Coat (AT 8): — A reinforced leather coat (as above) that covers to the lower leg.

8.2.5 SHIELD-PARRY TABLE

Shield Type	Bonus Versus Melee	Bonus Versus Missile	Weight In Pounds	Parry Limitations
Wall Shield	30	40	45-50	None
Full Shield	25	25	25-30	None
Normal Shield	20	20	15-20	None
Target Shield	20	10	5-10	None
Maine Gauche	15*	0	1-3	Cannot parry missile attacks.
One-Handed Arms	5*	0	—	Cannot parry missile attacks.
Two-Handed Arms	5*	0	—	Cannot parry missile attacks. Against One-handed weapons a maximum of 50% of wielder's OB may be used to melee parry.
Pole Arms	5*	0	—	Cannot parry missile attacks. Against non-pole arms a maximum of 50% of wielder's OB may be used to melee parry.
Terrain	(variable)		—	To be determined by the referee (e.g., a stone wall could be used to "parry" a missile attack).

* — Can only be used if weapon not used to attack with or if 100% of OB is used to parry (see Section 4.3).

Rigid Leather Base

Rigid leather armor and the rigid hide covering of creature like certain reptiles and of fantastic creatures such as Dragons.

Leather Breastplate (AT 9): — A rigid breastplate covering the torso to mid-thigh and part of the upper arms.

Leather Breastplate and Greaves (AT 10): — As above, but with leather greaves covering the forearms and lower legs.

Half-Hide Plate (AT 11): — Rigid-leather armor which covers the body completely, and the hide of certain creatures that contain at least a few rigid plates (e.g., Rhinoceros, Alligator).

Full-Hide Plate (AT 12): — As half-hide plate above, except that the rigid leather or plates are harder and/or more plentiful (e.g., Turtles, certain Dragons, Giant Crabs).

Chain Mail Base

Metal chain link armor, metal scale armor, and the hides of certain fantastic creatures.

Chain Shirt (AT 13): — A chain mail shirt covering the torso to mid-thigh and half of the upper arms.

Chain Shirt and Greaves (AT 14): — As above, but with greaves on the forearms and lower legs.

Full Chain (AT 15): — Chain mail covering most of the body and legs in the form of a shirt and leggings.

Chain Hauberk (AT 16): — A full-length chain mail coat split from the waist in the front and back to facilitate movement. Certain Dragons may be of this armor type.

Plate Base

Rigid armor of metal plates and the heaviest animal hides.

Metal Breastplate (AT 17): — A metal breastplate plus smaller plates covering the torso to mid-thigh and part of the upper arms.

Metal Breastplate and Greaves (AT 18): — As above, but with greaves on the forearms and lower legs.

Half Plate (AT 19): — Rigid plate armor covering the body, but with chain mail between the plates, at the joints, and covering the legs.

Full Plate (AT 20): — Rigid plate armor as half plate above, but with plates overlapping at joints, and plate armor covering the legs.

Armor Penalties

Due to its weight and constrictive nature, there are penalties associated with wearing armor while attempting to maneuver, defend, and throw/fire missiles. These penalties are detailed in the Armor Table (8.2.4), Section 4.3, Section 5.2, and Section 7.0.

4.2 SHIELDS

Shields are represented in combat by a bonus to the wielder's Defensive Bonus. In addition, when fighting with one or two weapons, one weapon may be used as a "shield," but may not be used for an attack in the same round. A shield bonus may only be used against one opponent's attack(s) per round.

These bonuses and other factors concerning shields and parrying are summarized in the Shield-Parry Table (8.2.5).

4.3 PARRYING

A defender may wish to place more emphasis on personal defense than is implicit in the ***RM*** combat system. Therefore, a combatant may wish to sacrifice some or all of his Offensive Bonus (OB) with the weapon he is presently using, in order to increase his DB (see Section 4.4). Such an action is called *parrying*, though it may be thought of in many combat situations as dodging.

The premise of sacrificing offensive capabilities in order to increase one's defensive capability is a fundamental component in the ***Rolemaster***.

Parrying Melee Attacks

A defender may parry a melee attack during the Melee Phase of the combat round by switching any or all of his OB (with the Melee weapon he is using during the Melee Phase) to DB. All points of OB so switched are converted to enhance DB.

- The designation of this "OB/DB split" is done for all combatants at the beginning of the Melee Phase.
- To parry a Melee attack, the defender must be aware that he will be subject to the attack.
- He must also have a shield, suitable terrain, or a Melee weapon. Some weapons may only be used to parry with a certain percentage of the wielder's OB.
- A combatant may only parry the foe that he attacks.
- If a combatant elects to parry with a weapon with his entire OB, he receives the "shield" bonus for his weapon. However, he must still make an attack with a +0 OB. These bonuses are listed on the Shield-Parry Table (8.2.5).



Parrying Missile Fire

As with melee parrying, a defender parrying a missile may reduce his OB, in whole or in part, and shift that bonus to his DB. To parry a missile attack:

- The defender must be aware that he will be subject to the attack.
- He must also have a shield (a weapon won't do) or suitable terrain with which to parry the missile.
- When parrying missile fire, the shift must be declared at the beginning of Fire Phase (A) and is only applicable against one missile attack.
- Parrying a missile attack requires 50% of a character's normal activity for a round.

Parrying Limitations

A combatant may use part of his OB for missile parrying, another part for melee parrying, and another part for a melee attack; but the sum of these may not exceed his normal OB total. A summary of parrying limitations may be found in the Shield-Parry Table (8.2.5).

> **Example:** *Mûldek has a DB of 50 and an OB of 85. He parries a missile (using his shield) during the Missile Phase with 25 of his OB, resulting in a DB against that attack of 75. Then, during the Melee Phase, he parries a melee attack with 10 of his OB, resulting in a DB of 60 against that attack. Thus, he has a 50 OB left for his own melee attack for the round.*

The Importance of Parrying

AL&CL is based upon the assumption that characters will use the option of parrying to protect themselves. In a face to face battle, only berserkers, idiots, and desperate characters always use their entire offensive bonus in attack. Such characters usually do not last long unless they have something special going for them (e.g., incredible armor, incredible luck, super healing facilities, etc.). In most situations a character will and should use part of his offensive bonus to attack with and the rest to increase his defensive bonus and thus protect himself. Of course, in certain situations it is often wise for a character to attack with his entire offensive bonus. For example, when attacking a foe who cannot attack back; or perhaps, when facing multiple opponents.

4.4 DEFENSIVE BONUS

The sum of all bonuses and penalties which affect the defender's susceptibility to being hit and damaged in combat is called the Defensive Bonus (DB). It is the number which is subtracted from the attacker's combat roll. The defender's DB is composed of bonuses for superior/inferior armor, Quickness, position and cover, special items, and Adrenal Defense skill bonus. A defender may also parry (i.e., dodge) incoming attacks by forgoing a portion of his own attack ability (see 4.3). The Defensive Modification Table (8.2.6) summarizes the factors which affect a defender's DB.

Defensive Bonus =

+ *Armor Quality* Bonus
+ (*Quickness* Stat Bonus - Armor Quickness Penalty)
+ *Adrenal Defense* Skill Bonus
+ *Position* and *Cover* Bonuses
+ *Spell* Bonuses
+ *Special Item* Bonuses
+ *Shield* Bonus (*see Section 4.2*)
+ *Parrying* Bonus (*see Section 4.3*)

8.2.6 DEFENSIVE MODIFICATIONS TABLE	
Effect	**Category and Notes**
+ (variable)	Armor quality bonus, Adrenal Defense bonus, (Quickness stat bonus - armor Qu penalty), spell bonuses, special item bonuses. These factors are usually fixed for a given character. (See Section 4.4.)
+ (variable)	Shield bonus (see the Shield-Parry Table 8.2.5).
+ (variable)	Parrying bonus (see Section 4.2)
+20	Half "Soft" cover (see Section 4.4.4) *.
+40	Full "Soft" cover (see Section 4.4.4) *.
+50	Half "Hard" cover (see Section 4.4.4) *.
+100	Full "Hard" cover (see Section 4.4.4) *.
± (variable)	Miscellaneous (determined by Gamemaster).

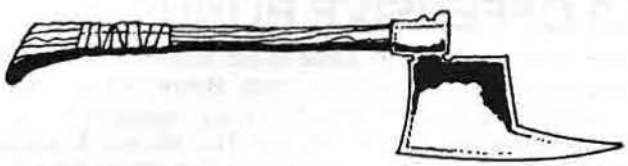
Note: *Modifications are cumulative unless noted otherwise.*

* — Only one of these modifications can be applied at any given time.

ARMOR QUALITY (4.4.1)

Especially good armor in terms of material, construction, or enchantment does not change that armor's basic type, but rather adds a bonus to the wearer's DB. Conversely, shoddy armor will incur a penalty to the wearer's DB. It is highly recommended that Superior Armor bonuses rarely exceed +10 or +15. See ***RM*** Section 7.3 in *ChL&CaL*.

Example: *Miraj, a rather successful Ranger, wears a Chain Shirt and Greaves (AT 14) taken from the lifeless body of a follower of the Bearer of the Root. The GM has decided that this armor is of superior construction (being make by a highly revered Dwarven smith) and so awards it a +10 quality bonus. This armor is thus AT 14(10).*



QUICKNESS STAT BONUS (4.4.2)

A combatant's DB is modified by his Quickness stat bonus or penalty. If the defender is wearing certain types of cumbersome armor, his Quickness stat bonus may be reduced or eliminated completely (but never below zero); see the Armor Table (8.2.4). A defender only has his Quickness stat bonus factored into his DB if he is aware that he is in a combat situation and is free to move.

Example: *Skhan, a T'sbalic warrior, has a temporary Quickness stat score of 98 (good rolling, Skhan!). Unencumbered by armor, Skhan is AT 1(20) (i.e., his DB is 20) when in a combat situation and free to move. Skhan now puts on an metal breastplate which reduces his Quickness stat bonus by 10. Now when he is in combat, barring other modifiers, Skhan is AT 17(10).*

ADRENAL DEFENSE (4.4.3)

As described in the *ChL&CaL* Section 3.8, Adrenal Defense is a skill which adds to a defender's DB. This is a very restrictive DB factor. Normally, the combatant must be aware of his attacker, may not be carrying any heavy items or any weapons (other than those he uses in a weapon kata), and may not be wearing armor. If a defender is using Adrenal Defense, the full skill bonus may be used against Melee attacks, while only half of the normal skill bonus may be used against missile attacks.

POSITION AND COVER (4.4.4)

The GM may award a variable bonus to a defender if his position is judged to be advantageous. Penalties due to a defender's disadvantageous position are reflected in modifications to the attacker's Offensive Bonus (see Section 5.0).

Such bonuses against missile attacks should be based upon the percentage of the defender's body protected and the ability of cover to stop incoming fire.

Here are some sample missile attack cover bonuses:

Half "Soft" Cover ..... +20
Full "Soft" Cover ..... +40
Half "Hard" Cover ..... +50
Full "Hard" Cover ..... +100

Note: *If a combatant is completely protected by cover, and is making no attack himself, the GM may rule that no attack may be made against him.*

Example: *Mûldek, wondering why he ever joined the Confused Young Lords, finds himself defending behind a low stone wall against the combined forces of Mormiresûl and Arxdukanga. During combat, Mûldek stands to fire his bow. The wall rises to his waist, protecting him from his foes' missile fire. The GM awards Mûldek a cover bonus of 50 to his DB (maybe overly generous, but the GM knows that Mûldek is going to need every bit of it).*

SPELLS (4.4.5)

Certain spells may increase a combatant's DB. Such spells are described in *Spell Law*.

SPECIAL ITEMS (4.4.6)

There may be special items (usually magic items) in a GM's campaign which will impart a DB to their possessors. These may range from unique magical artifacts to lucky charms. Their design/strength is subject to the GM's devising.

SHIELDS (4.4.7)

As described in Section 4.2, a shield or a weapon used as a shield will impart a bonus to the wearer's DB against one attack.

PARRYING (4.4.8)

As described in Section 4.3, a defender may commit part of his OB to increase his DB against one attack.

5.0 OFFENSIVE CAPABILITIES

The success of an attack will depend heavily on the weapon or weapon combination used (Section 5.1) **and** the offensive capabilities possessed by the attacker (Section 5.2). The offensive factors which can affect an attack roll include: expertise, physical prowess, experience, superior/inferior weapon(s), weapon combination, special equipment, position, status of the defender and status of the attacker. The sum of all bonuses and penalties related to the attacker is called the Offensive Bonus (OB).

5.1 WEAPON COMBINATIONS

A combatant's capabilities in combat are often dependent upon what weapons he uses. The normal weapon combinations are: no melee weapon, one-handed weapon, a one-handed weapon with a shield, a two-handed weapon, and two one-handed weapons.

No Melee Weapon

Normally a combatant without a melee weapon may not attack and may not parry with his OB (see Section 4.3). However, if such a combatant has a substantial object capable of blocking a weapon blow in his hands (e.g., a stool, a mattress, a log, a body), he may parry with half of his largest melee OB. In such a case, a GM may even allow the combatant to make an attack. (For example, a log might be a -10 club attack.) An object used to parry in this manner may be broken or damaged (see *ChL* Section 7.3.6).

In a similar manner, a combatant may "parry" with suitable terrain features (e.g., dodge around a tree, duck under a large branch, step behind a door). As always, the GM is the final judge as to the appropriateness of such "parrying" situations.

One-Handed Weapons

A combatant armed with a single one-handed weapon may attack once per round and parry normally (see Section 4.3).



One-handed Weapons with a Shield

A combatant armed with a one-handed weapon and a shield may attack normally once per round **and** parry normally (see Section 3.3). Such a combatant may use his shield bonus for his DB against one foe **and** then use his parry bonus against the foe he attacks. Alternatively, he may use both bonuses against the same foe.

Pole Arms

For normal human-sized creatures, these types of weapons require both hands to wield. Thus, they can not be used with a shield. A combatant using a pole arm may only use 50% of his OB to parry an opponent using a weapon that is not a pole arm.

Combatants in the second line should be allowed to strike past friendly combatants (front line) if they are using pole arms. This serves to simulate the effectiveness of organized groups of fighters with pole arms. The GM should determine whether the front line combatants and second line combatants are adequately trained for this type of combat.

Two-Handed Weapons

For normal human-sized creatures, these types of weapons require both hands to wield. Thus, they can not be used with a shield. A combatant using a two-handed weapon may only use 50% of his OB to parry an opponent using a one-handed weapon.

Two One-handed Weapons

A combatant may use a one-handed weapon in each of his hands. He is assumed to be right-handed (the same rules apply in reverse for left handed combatants). When a combatant develops skill with (i.e., trains with) a weapon, he must develop the skill with his right hand and skill with the left hand separately (see *ChL* Section 3.0).

- Any weapon used in the left hand automatically gets a -20 modification to the combatant's OB with that weapon.
- The combatant may attack with both weapons in the same round, or he may attack with only one and use the other for its "shield" bonus versus melee (see Table 8.2.5).
- A combatant must direct both his attacks (and parry) against the same target.
- If a combatant uses part of his offensive bonus for parrying, he must decrease both his weapon OBs by that amount.

Thrown Weapons

If a stationary combatant is trained with a particular type of throwing weapon, he may throw that weapon using 80% of his normal OB **and** still melee in the same round with only a -20 modification to his melee OB. Such a combatant may only use a one-handed weapon **or** a one-handed weapon and a shield on the round that he throws the weapon. (He is assumed to be holding his melee weapon in his non-throwing hand.)

5.2 OFFENSIVE BONUS

The Offensive Bonus is added to the attacker's combat roll during the resolution of a given attack. Below is a descriptive listing of the factors which contribute to a combatant's OB for a specific weapon and a specific situation. The Offensive Modification Table (8.2.7) summarizes the factors which affect a defender's DB.

Offensive Bonus =

+ *Skill* Bonus (expertise)
+ *Stat* Bonus
+ *Level* Bonus
+ *Weapon* Bonus
+ *Spell* Bonuses
+ *Special Item* Bonuses
+ *Position* Bonuses (*Table 8.2.7*)
± *Status* Bonuses/Penalties (*Table 8.2.7*)
- *Parrying* Bonus (*Section 4.3*)
- 20 if weapon used in *left hand* (*Section 5.1*)
± *Range* Modifications (*on attack table*)
- *Reloading* Penalty
- *Armor* Missile Attack Penalty (*Table 8.2.4*)

SKILL — Expertise (5.2.1)

A combatant with expertise in handling a certain weapon receives a "skill bonus" for his OB.

Expertise in ***Rolemaster*** is measured in terms of skill ranks (see *ChL* Section 3.0). The higher the number of skill ranks one possesses in a given weapon skill, the higher the resultant OB will be. Normally, this bonus is:

- +5 for each of skill ranks 1 to 10
- +2 for each of 10 skill ranks 11 to 20
- +1 for each of 10 skill ranks 21 to 30
- +½ for every skill rank over Skill Rank 30.

Example: *A combatant with Skill Rank 13 with a mace would have a skill bonus with the mace of 56 = (10 x 5) + (3 x 2).*

STATS — Physical Prowess (5.2.2)

A combatant with extraordinary physical strength and/or agility may receive a "stat bonus" for his OB. For unusually weak and/or clumsy characters this bonus may actually be negative.

See the Bonuses for Unusual Stats Chart below **and** *ChL* Sections 2.0 and 15.1.4.

Weapon Type	Applicable Stat
Melee	Strength
Bows, Slings	Agility
Thrown	Strength

Example: *Elor has a Strength of 95, so his melee stat bonus is +15.*

BONUSES FOR UNUSUAL STATS CHART

1-100 Stat	D100 Bonus	D20 Bonus	3-18 Stat	2-12 Stat
102+	+35	+7	20+	17+
101	+30	+6	19	15-16
100	+25	+5	18	13-14
98-99	+20	+4	17	12
95-97	+15	+3	16	—
90-94	+10	+2	15	11
85-89	+5	+1	14	10
75-84	+5	+1	13	9
60-74	0	0	12	8
40-59	0	0	10-11	7
25-39	0	0	9	6
15-24	-5	-1	8	5
10-14	-5	-1	7	4
5-9	-10	-2	6	3
3-4	-15	-3	5	—
2	-20	-4	4	2
1	-25	-4	4	2

8.2.7 OFFENSIVE MODIFICATIONS TABLE

Effect	Category and Notes
+ (variable)	Skill bonus, stat bonus, level bonus, weapon quality bonus, spell bonuses, special item bonuses. These factors are usually fixed for a given character. (See Section 4.4.)
- (variable)	Parrying bonus (see Section 4.3).
-20	If weapon used in left hand (see Section 5.1).
± (variable)	Range modifications (see individual attack tables).
- (variable)	Reloading penalty (see Section 5.2.12).
- (variable)	Armor missile attack penalty (see Table 8.2.4).
+15	Flank attack.
+20	Rear attack.
+20	Surprise.
+20	Stunned foe *.
+30	Downed foe *.
+50	Prone foe *.
-10	Wounded more than 25% (concussion hits).
-10	Wounded more than 50% (concussion hits).
-10	Wounded more than 75% (concussion hits).
-20	Drawing a weapon (also applies to movement).
-50	Changing weapons (also applies to movement).
- (variable)	Moving (normally the % of possible movement equals the penalty).
± (variable)	Miscellaneous (to be determined by the GM).

Note: *Modifications are cumulative unless noted otherwise.*
* — Only one of these modifications can be applied at any given time.

LEVEL (Experience) (5.2.3)

Certain character professions get a bonus to their OB based on their level of experience.

See the descriptions of character professions to determine if a given combatant is entitled to such a bonus to the OB (see *ChL* Section 4.0).

Profession	Bonus per Level of Experience
Fighter	+3/level up to 20th, +1/level over 20th
Thief	+2/level up to 20th (max. of 40)
Rogue	+3/level up to 20th (max. of 60)
Warrior Monk	+2/level up to 20th (max. of 40)
Monk, Ranger, Bard	+1/level up to 20th (max. of 20)
Other Professions	no level bonus

Example: *A 23rd level Fighter would have a Level Bonus of +63 = (20 x 3) + (3 x 1), while a 23rd level Thief would only have a Level Bonus of +40 = (20 x 2).*

WEAPON QUALITY (5.2.4)

Weapons remarkable in material, construction, or workmanship may add a bonus to a combatant's OB (or a penalty for inferior weapons). It is strongly suggested that bonuses for superior quality weapons rarely exceed +10 or +15 (see ***RM*** Section 7.3 in *ChL&CaL*).

To determine the weapon bonus for a non-thrown missile attack, average the firing device's (i.e., bow or sling) bonus with missile's (i.e., arrow, quarrel, or stone) bonus and round off.

Example: *A +10 composite bow firing a +5 arrow would have a weapon bonus of +8 = (10 + 5) ÷ 2.*

SPELLS (5.2.5)

Certain spells may increase a combatant's OB. Such spells are described in *Spell Law*.

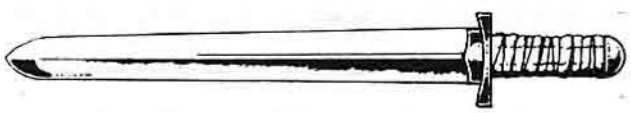
SPECIAL ITEMS (5.2.6)

There may be special items (usually magic items) in a GM's campaign which will impart a OB modification to their possessors. These may range from unique magical artifacts to lucky charms. Their design/strength is subject to the GM's devising.

POSITION (5.2.7)

At the GM's discretion, a bonus or penalty may adjust a combatant's OB if his position is determined to be somehow superior or inferior to his opponent's. See the Offensive Modifications Table (8.2.7).

Unless stated otherwise, position bonuses are cumulative. For example, a surprise rear attack would get a total position bonus of at least +55: +20 for surprise, +20 for rear attack, and +15 for a flank attack. A non-surprise rear attack would get a total position bonus of +35.



STATUS (5.2.8)

A summary of the various status modifiers to an OB are listed in the Offensive Modifications Table (8.2.7).

PARRYING (5.2.9)

As discussed in Section 4.3, a combatant's OB is lowered for a specific attack by the amount he uses to parry.

LEFT-HAND USE (5.2.10)

As discussed in Section 5.1, a weapon used in the left hand receives a special -20 OB modification.

RANGE (5.2.11)

There is a modification to the firer's OB based upon the distance from the firer to the target. These modifications range from +30 to -75 and are provided on the Weapon Attack Tables (8.3.1-8.7.4).

The missile ranges given on each of the attack tables are the *maximum* ranges for which each of the given OB modifications apply. For example on the Composite Bow Attack Table (8.5.2), attacks made at a range of 0'-10' are modified by +25, attacks at a range of 11'-100' receive no modification, attacks at 101'-200' are modified by -35, attacks at 201'-300' are modified by -60, and attacks over 300' are not allowed.

RELOADING (5.2.12)

The preparation (i.e., reloading) time required between missile attacks is dependent upon the type of weapon and how accurate the firer is attempting to be. The chart below gives the firer's OB penalty due to reloading.

RELOADING CHART (result is the OB penalty)

Weapon	Number of Preparation Rounds 0	1	2	3
Short Bow	10	0	0	0
Composite Bow	20	0	0	0
Long Bow	30	0	0	0
Light Crossbow	na	20	0	0
Heavy Crossbow	na	30	10	0
Sling	10	0	0	0

na = not allowed

The act of firing the weapon always takes one round and requires 50% of the firer's activity (as specified earlier in the rules). A combatant preparing a shot (i.e., reloading) may still take 20% of his normal activity. The figures presented in the table assume the bow is strung and arrows (or quarrels or pellets) are available in quiver (or pouch). If a bow has to be strung, the following rounds are added to the preparation time:

Short Bow .....+2 rounds
Composite Bow .....+3 rounds
Long Bow .....+3 rounds

Note: *See Section 9.4 for optional reloading rules that express reloading in terms of a combatants % activity for a round.*

ARMOR MISSILE ATTACK PENALTIES (5.2.13)

A combatant making a missile attack receives a penalty to his OB if he is wearing armor that covers his arms. This includes armor types 6, 7, 8, 10, 11, 12, 14, 15, 16, 18, 19, and 20. The specific penalties are summarized on the Armor Table (8.2.4).

5.3 MOUNTED COMBAT

A combatant faces none of the combat movement restrictions when riding an animal (i.e., the animal moves). However, the combatant must be trained in controlling the horse and fighting from horseback in order to be effective. Depending upon his training and background, a mounted combatant can use anywhere from 0% to 100% of his normal OB. This restriction is not in effect if the horse is completely stationary (i.e., moving at more than a slow walk or not bucking).

The OB of a mounted combatant is based upon his normal OB, his riding skill bonus, and bonuses for the mount:

Mounted OB =
Normal OB x (Riding skill bonus + special bonuses) ÷ 100

The Riding skill bonus is described in *ChL* Section 3.6. The chart presented in this section includes some suggested special bonuses based upon the mount.

Certain weapons are at maximum effectiveness only when used mounted on a moving animal. The mounted lance falls into this category. As a result, the spear table should be used if a lance is used on foot **or** on an animal that is nor moving faster than a walk. A full gallop should give a special +20 modification to the OB for an attack by a mounted lance.

MOUNT QUALITY RIDING BONUSES *(numbers are cummulative)*	
wild horse	–20
farm horse	–10
riding horse	+5
war horse	+20
very intelligent horse	+10

The chart below gives some rider percentages for those not using *ChL&CaL*.

untrained rider	–30 and 0% of bonus
novice rider	10% of bonus
trained rider	50% of bonus
expert rider	80% of bonus
master rider	100% of bonus

6.0 COMBAT RESOLUTION

A melee swing or missile attack is resolved by cross-indexing the net attack roll with the target's armor type (AT) on the correct *Attack Table* for the weapon being used. The effects of Failures and Critical Strikes are found on the correct *Fumble Table* or the appropriate *Critical Strike Table*. In each fire phase, all attacks are treated as simultaneous. For melee, first determine the order in which the combatants will swing; then resolve each attack in sequence, implementing the results immediately.

6.1 INITIATIVE DETERMINATION

The quickest combatant normally swings first in a melee, but this may be be modified based on a number of factors, including weapon size, weight, etc.

Each combatant should total his initiative points; these points are summarized on the Initiative Determination Table (8.2.8). The combatant with the largest total swings first, then the second largest total, and so on. After all combatants that have melee attacks have made one attack, those capable of making a second melee attack (i.e., those with two weapons or those hasted) calculate their initiative points for their second attacks. These attacks are then resolved as outlined above.

6.2 ATTACK RESOLUTION

The net attack roll representing the swing/missile is the attack roll (high open-ended) **plus** the Attacker's OB **minus** the Defender's DB. Referring to the Attack Table corresponding to the attacker's weapon or attack type, this result is cross-indexed with the Defender's armor type on to arrive at the result of the swing/fire. The armor types are the numbers, 1-20, across the top and bottom of each attack chart.

In certain cases where an attack is especially bad or good, another roll may be required to determine the results of a Failure or Critical Strike.

The attack tables include 30 weapons (8.3.1-8.7.4), 10 animal attack tables (11.1.1-11.2.1), and 2 Martial Arts attack tables (11.2.2-11.2.3). Each one takes into account the capabilities of the weapon or attack type as well as the protective factor and mobility of the armor type.

The Attack Roll

A swing/missile is represented by rolling percentile dice (high open-ended, see Section 2.0). The result is the Attack Roll (AR) for that swing/missile.

8.2.8 INITIATIVE DETERMINATION TABLE	
Effect	**Category and Notes**
+ (1-100)	Quickness stat (1-100 base).
+10	Strength (applies to the stronger combatant).
+30	Weapon ready.
0	One-handed weapon.
-10	Two-handed weapon.
+40	Pole Arm, on 1st round of combat between 2 opponents.
-20	Pole Arm, after 1st round of combat between 2 opponents.
+10	Longer weapon when neither opponent is charging.
+30	Longer weapon when one or both opponents are charging.
-5	Two weapon combination.
-10	Shield.
-40	Surprised.
-40	Encumbered.
-40	Wounded more than 50% (concussion hits).
- (variable)	Moving, subtraction equal to % of movement expended.

Note: *Total all applicable modifications; the melee combatant with the higest total attacks first.*

Unmodified Rolls

An Attack Roll of 01-10 *may* indicate an immediate effect, in which case, no modifications are applied.

- An unmodified roll of 01-02 for an animal attack or a martial arts attack (Tables 11.1.1-11.2.3) indicates automatic attack "Failure". Such an attack has no effect on the attacker and no effect on the defender.
- For a weapon attack, if the Attack Roll falls within the weapon's "Fumble Range", the attacker "fumbles" his weapon (see Section 6.3). These fumble ranges are printed on the appropriate weapon attack tables (8.3.1-8.7.4). Such an attack has no effect on the defender may affect the attacker (see Section 6.3).

"96-100" Attack Roll

An Attack Roll is a "high open-ended roll". As outlined in Section 2.0, if such a roll is between 96 and 100, a particularly effective attack has been made. The dice are rolled again and the result is added to the first roll. If the second roll is 96-00, then a third roll is made and added, and so on until a non 96-00 roll is made. The total sum of these rolls is the result of the high open-ended roll; in this case it is the result of the Attack Roll.

Example: *An initial Attack Roll is 97, so the dice are rolled again with a result of 99. Thus, the dice are rolled again with a result of 04. This Attack Roll is 98 + 99 + 04, for a total of 201.*

The Net Attack Roll

If the Attack Roll does not indicate a Fumble or a Failure, the *net attack roll* is determined by adding the OB to the Attack Roll and subtracting the defender's DB.

6.3 FUMBLE RESULTS

If an attack results in a *fumble* (see Section 6.2), a roll must be made and cross-indexed on the Fumble Table (8.2.1) with the column that applies to the weapon being used. The result is immediately applied to the attacker.

Example: *Coma the Half-dwarven Fighter playfully swings his battle axe at "his friend" Trevor, an Elven Sheeplord. His attack roll is 04 and thus falls into the fumble range for a battle axe (i.e., 01-05) — Coma fumbles his weapon. As Trevor begins to laugh, Coma makes a roll of 83 and cross-indexes it with the "Hand Arms (2-hand)" column on the Fumble Table — Coma juggles his weapon for 3 rounds and thus may not attack; he can still parry. If Trevor can stop laughing, he can attempt to fry the juggling Half-dwarf with his magic trident. If Coma's initial roll had been an 06 or better, he would not have fumbled and he would have resolved his attack normally.*

6.4 NON-FUMBLE/FAILURE RESULTS

If an attack does not result in a fumble/failure, the net attack roll is cross-indexed with the defender's armor type on the appropriate attack table — Tables 8.3.1-8.7.4 for weapons, Tables 11.1.1-11.2.1 for animal attacks, and Tables 11.2.2-11.2.3 for martial arts attacks. Treat net attack rolls of more than 150 as 150.

Example: *Mirage makes a net attack roll of 87 and has an OB of 100 with her composite bow. Her target has an AT of 15 and a DB of 30, so her net attack roll is 157. However, since this is greater than 150, it is treated as 150. Cross-indexing AT 15 with a net attack roll of 150, we get a result of "22EP".*

Note that each of the Claw Law Attack Tables (11.1.1-11.2.3) has four "maximum result" thresholds. An attack's net attack roll cannot exceed the designated threshold; instead, the maximum allowed result is used as the net attack roll.

Example: *An animal makes a Medium Claw attack against AT13. The net attack roll is 132, but the threshold for Medium attacks is 120. Thus, the net attack roll used is 120, and the result is "13CP."*

A typical result from a weapon attack table will have three components, for example:

22 E P

The first component will be a number from 0 on up, which is the number of concussion hits delivered to the target. The second component is a letter describing the severity of a critical strike (if any — no letter indicates that no critical strike was delivered). The third component is only present if the second component is present; it is a letter indicating the type of critical strike. In the example above, the target has taken **17** concussion hits and a **P**uncture type critical of **E** level severity. If the critical severity is given but not the critical type, the critical type is indicated on the appropriate attack table.

Note: *Krush type criticals are indicated by a "K" result in order to distinguish them from "C" level severity results.*

For animal attacks and martial arts attacks there is no third component. Instead, the critical type is the same for all results from a given attack table and is provided at the bottom of each table.

CONCUSSION HITS (6.4.1)

A number result from an attack indicates that the defender receives that many concussion hits.

Each combatant has a limited number of concussion hits (see *ChL* Section 2.4 and 3.8). When the limit is exceeded, the combatant is rendered unconscious and can take no further action until he is back under the limit. Death may be caused if this limit is exceed by a certain amount (see *ChL* Section 3.8).

> The point at which death occurs is proportional to the combatant's physical constitution, and depends on the system used in the game for deriving physical characteristics. The GM will have to decide on the point at which death results (e.g., 2 times the number of concussion hits causing unconsciousness could result in the victim's death, or, alternatively, the number of concussion hits causing unconsciousness added to the victim's Constitution on a 1-100 scale).

CRITICAL STRIKES (6.4.2)

A result of a number followed by one or two letters indicates that the defender receives a number of concussion hits (see Section 6.4.1) **and** a critical strike.

The first letter (or the only letter) indicates the severity of the critical. The severity of a critical strike (or just critical) ranges from 'A' (least severe) to 'E' (most severe) with the letters 'F' indicating multiple criticals as detailed on the individual animal attack tables.

The second letter (if any) indicates the *critical type*. Criticals of this type are: **S**lash, **P**uncture, **K**rush, **G**rapple, **U**nbalance, and **T**iny.

If there is only one letter, the critical type is indicated on the appropriate attack table. Criticals of this type are: Martial Arts Striking, and Martial Arts Sweeps & Throws.

When a critical is indicated, a second (1-100, not open-ended) roll is then made and the result is cross-indexed with the severity of the critical ('A', 'B', 'C', 'D', or 'E'). The critical table used corresponds to the *critical type*.

Certain critical strikes have an 'F' severity, indicating two normal critical strikes should be applied to the target. A separate roll is made for each critical and all results are applied cumulatively. The type and severity of these criticals is provided at the bottom of the appropriate attack table.

CRITICALS AGAINST LARGE AND SUPER-LARGE CREATURES (6.4.3)

Certain unusual creatures are so large and/or powerful that the normal critical strike tables are not used when they receive critical strikes. Unusual creatures are separated into two categories:

- *Large Creatures* (Trolls, Giants, Demons, and Undead, etc.).
- *Super-Large Creatures* (Dragons, very powerful Demons, etc.).

Each category has its own critical strike table that is consulted if a sufficiently severe critical strike is obtained against them. The roll for criticals against Large and Super-Large creatures is high open-ended.



Large Creature Critical Strikes

Only critical strikes of severity 'B', 'C', 'D', or 'E' affect large creatures (i.e., 'A' severity criticals are ignored). A high open-ended roll is made and cross-indexed with the weapon type on the Large Creature Critical Strike Table (8.1.4). The result obtained is applied immediately.

Note that the severity of the critical strike is irrelevant, except that it must be of 'B' severity or higher. This reflects the fact that such creatures present such a large target that they are much more difficult to seriously hurt.

Super-Large Creature Critical Strikes

Only critical strikes of severity 'D' or 'E' affect super-large creatures (i.e., 'A', 'B', and 'C' severity criticals are ignored). A high open-ended roll is made and cross-indexed with the weapon type on the Super-Large Creature Critical Strike Table (8.1.5). The result obtained is applied immediately.

This table should be consulted of only for creatures such as Dragons, Dinosaurs, and the most powerful Demons.

Slaying Criticals

Some Large and Super-Large creatures are especially vulnerable to certain magical weapons (e.g., a Troll is vulnerable to a weapon of "Troll-slaying"). If a critical is obtained with such a weapon against a Large or Super-Large creature, the "Slaying" column on the appropriate table is used.

If a critical strike is obtained when using a weapon of slaying for a man-sized creature (e.g., an Orc-slaying sword used against an Orc), the normal critical is resolved and then a second critical is resolved on the slaying column of the Large Creature Critical Strike Table (8.1.4).

CRITICAL INTERPRETATIONS (6.4.4)

Most of the critical strike results are self-explanatory. However, certain results may have to be modified due to circumstances.

Example: *A target behind a low stone wall is hit by an arrow and receives a critical calling for damage to his ankle. Instead the GM should rule that he is hit in the wrist. Note that he already receives a defensive bonus for being behind the stone wall and was hit in spite of it. Similarly, if a critical strike calling for an unspecified limb to be broken is rolled, the limb affected should be determined randomly.*

Overall Guidelines

- All damage (including concussion hits), unless otherwise noted, is only applicable to the target combatant.
- Often bleeding, bruises, burns, frostbite, etc. indicated on the critical strike tables are reflected in the form of additional concussion hits. This is meant to show the gradual weakening brought about by shock, bleeding, and pain.
- *Next swing/roll* can refer to a missile attack, maneuver, spell attack as well as to a melee attack.
- If a target takes a critical result that lasts for a certain number of rounds and he has not yet performed his action for the current round, the current round counts as one of the rounds affected by the result. Otherwise, the effects begin the round after the critical is received.
- If an item is indicated as being destroyed by a critical result, it is automatically destroyed unless it is made of an extraordinary material (e.g., Mithril) or it is incredibly magical (i.e., an Artifact). In this case, if the GM allows it, the item may make a RR as described in *Spell Law* Section 8.5 to avoid destruction.

Critical & Fumble Results

Below we provide guidelines for specific criticals/fumbles.

+ # hits — *(e.g., "+5 hits")* This many hits (#) are taken in addition to the normal hit result derived from the attack table used. Normally, these hits are **not** increased (i.e., "multiplied") by strength factors (e.g., certain creatures do "3x" normal damage, a *Strength* spell on a character lets him deliver "2x" normal damage, etc.).

hits per round — *(e.g., "+3 hits per round")* Each round after the critical is taken, the target takes this many (#) additional hits due to pain and bleeding.

... at -# — *(e.g., "Foe fights at -30)"* All of the target's bonuses (except DB and RRs) are modified by this number (#). These penalties are cumulative. Certain of these penalties apply only to specific skills (e.g., fighting, running, etc.). Alternatively, the GM may elect to treat these penalties as a percentage modification of the target's bonuses (i.e., reduce each bonus by # %).

Must parry # rounds — *(e.g., "must parry 2 rounds")* For this number (#) of rounds, the target may not attack; he may only parry with half of his OB, and the only other actions allowed are movement and maneuvers, both modified by at least -25.

Stunned # rounds — For this number (#) of rounds, the target may not attack, he may only parry with half of his Offensive Bonus (his normal DB due to Quickness, shield, etc. is not affected), and the only other actions allowed are movement and maneuvers, both modified by at least -50.

Stunned and unable to parry # rounds (Stunned-No Parry) — For this number (#) of rounds, the target may not attack, he may not parry (his normal DB due to Quickness, shield, etc. is not affected), and the only other actions allowed are movement and maneuvers, both modified by at least -75.

Down (or out) for # rounds — For this number (#) of rounds, the target may not perform any actions.

Effects of "Stun" Rounds

During play a combatant may be "stunned" for a number of rounds due to critical strikes (this includes all "Stunned" rounds, all "Stunned No Parry" rounds, and all "Down or Out" rounds). All of these "stuns" due to multiple critical strikes are cumulative. Normally the total number of rounds of "stuns" decreases by one each round, with the most severe type of "stun" taking effect first.

7.0
MANEUVERING AND MOVEMENT

Complete maneuvering and movement guidelines can be found in *Character Law & Campaign Law*. In this section, we present a summary of those guidelines as they apply to combat situations.

7.1 MANEUVERING

Complete maneuvering guidelines can be found in *ChL* Section 3.3. In this section we only present guidelines for moving maneuvers and how they apply to combat.

Assigning a Degree of Difficulty

When a combatant indicates that he wishes to attempt a specific maneuver, the GM should assign a *degree of difficulty* and any special modifications he feels apply. The degree of difficulty is chosen from those listed across the top of the Maneuver/Movement Table (8.2.2) and listed below:

Routine
Easy
Light
Medium
Hard
Very Hard
Extremely Hard
Sheer Folly
Absurd

If the combatant decides not to proceed with the maneuver, he may cancel his action as described in Section 3.5. Otherwise, the combatant makes a maneuver roll. After the maneuver roll is modified by applicable bonuses and penalties (see Table 8.2.9), the net maneuver roll is cross-indexed with the degree of difficulty on Table 8.2.2 to obtain the result.

Note: *It is important to remember that certain maneuvers may be deemed impossible by the GM. The player should be advised that such a maneuver is doomed to failure.*

8.2.9 MANEUVER MODIFICATIONS TABLE

Effect	Category and Notes
-35 to +35	Applicable stat bonus (usually Agility).
-10	Wounded more than 25% (concussion hits).
-10	Wounded more than 50% (concussion hits).
-10	Wounded more than 75% (concussion hits).
- (variable)	Armor, see Table (8.2.4) for maneuver mod.
± (variable)	Applicable skill bonus (see *ChL* Section 3.0).
± (variable)	Bonuses due to spells (see *SL*).
± (variable)	Unusual absurdities (determined by GM).
± (variable)	Miscellaneous (determined by GM).

Note: *Modifications are cumulative unless noted otherwise.*

Maneuver Roll

The outcome of an attempted maneuver is resolved by making an open-ended roll, 1-100 (see Section 2.0 for a description of "rolls"). The result of this roll is the maneuver roll.

Maneuver bonuses and Penalties

Attempted maneuvers can be affected by various factors such as skills, armor and special equipment. Bonuses and penalties for these factors are outlined in Maneuver Modifications Table (8.2.9). The sum of these bonuses and penalties is added to the maneuver roll to determine the net maneuver roll.



Maneuver Results

The net maneuver roll is cross-indexed with the degree of difficulty on Table 8.2.2. The result is usually self-explanatory, but a percentage result (i.e., a number) can be interpreted in several ways by the GM.

- In the case of an all-or-nothing maneuver (i.e., no partial success) a second dice roll must be made. If this second roll is equal to or less than the original percentage result, then the maneuver succeeds. Otherwise, the maneuver fails.
- If a maneuver can be partially successful, then the original percentage result is the degree of success.

Maneuver Procedure Summary

1) The character states the nature of his maneuver.
2) The GM assigns a degree of difficulty and any special modifications to the maneuver.
3) The character decides whether or not to cancel the maneuver.
4) If he decides not to cancel the maneuver, an open-ended maneuver roll is made.
5) All applicable modifications are made to the maneuver roll.
6) The net maneuver roll is cross-indexed with the degree of difficulty on Table 8.2.2.

Example: *Suppose a combatant attempts to leap 15 feet over a chasm 11 feet wide. The GM assigns the leap a degree of difficulty of "Medium." If the combatant does not cancel his maneuver, his roll will be modified by -10 for wearing a chain shirt (AT 13; see Table 8.2.4), by +25 for a excellent Agility, and by -10 for being wounded (over 25% of hits). He rolls a 91 for a net maneuver roll of 96 (91 - 10 + 25 -10). Cross-indexing on Table 8.2.2, we get a result of* ***"80"****. This means that the combatant has leaped 12' (15' x 80%) and therefore has crossed the chasm safely.*

If this maneuver had been to throw a rope around a rock on the other side of the chasm and the same result had been obtained, then a second dice roll would have been required. If the second roll (unmodified) was 80 or less, then the rope throw would be successful; otherwise, it would fail.

7.2 MOVEMENT

These movement guidelines can also be found in ***RM*** Section 7.2 in *ChL&CaL*.

This section deals with tactical movement (i.e., movement on a round by round basis) **and** the effects of carrying encumbering loads **and** the results of exertion and exposure to severe elements.

MOVEMENT (7.2.1)

A character's movement rate in a given round is based upon his Base Movement Rate (Base Rate), his Pace, and possibly a maneuver roll. A character's movement rate for a given round is obtained by multiplying the character's Base Rate by his Pace (and possibly modified by the result of a maneuver roll).

Movement Rate = (Base Movement Rate) **x** (Pace Multiplier) **x** (Maneuver Roll Result / 100)

The assumptions made for this movement system are: (1) a 100 Quickness for a 6' tall Common Man will result in a "world class" sprinter; and (2) the average character (Quickness 25-74) walks at 3.43 miles per hour.

Base Movement Rate

The Base Movement Rate for an average Common Man is 50'/round. This can be modified for specific characters by a number of factors: the Quickness stat bonus, any race stat bonus modification, any armor Quickness penalty, a "stride" modification, and an encumbrance penalty. Each character should be able to calculate several standard Base Movement Rates for various situations (e.g., carrying all equipment, carrying weapons and armor only, having dropped backpack, etc.).

Quickness Stat Bonus: The chart below can be used for obtaining the Base Movement Rate due to stat alone. Simply use the character's Quickness stat; the resulting figure is the number of feet the character can move at a "walking pace" in a ten second battle round (assuming he is healthy, unencumbered, and has no armor maneuver penalty).

MOVEMENT RATE CHART

Quickness	Quickness Stat Bonus	Base Movement Rate
102+	+35	85'
101	+30	80'
100	+25	75'
98-99	+20	70'
95-97	+15	65'
90-94	+10	60'
75-89	+5	55'
25-74	0	50'
10-24	-5	45'
5-9	-10	40'
3-4	-15	35'
2	-20	30'
1	-25	25'

Note: *Some GM's may wish to use the average Quickness and Agility when using this chart (see ChL Section 14.1.2).*

Racial Quickness stat bonus modification: This modification is based upon a character's race (see *ChL* Section 6.2 and *ChL* Table 15.5.1) and is added directly to a character's Quickness stat bonus and thus directly to the character's Base Movement Rate.

Armor quickness penalty: This penalty can modify the Base Movement Rate, but only to the extent of canceling the Quickness stat bonus (and racial bonus). In other words, if only the Quickness stat bonus (and racial bonus) and the armor bonus penalty (see Table 8.2.4) are considered, the resulting Base Movement Rate can not fall below 50'/rnd. This factor may be partially cancelled by a character's Strength bonus (see Section 7.2.2). The Base Movement Rate can fall below 50 because of other factors such as stride, encumbrance, etc.

Stride Modification: The Base Movement Rate is also modified for a character's length of stride. This factor should be used whenever racial adjustments are employed, for shorter beings (e.g., Halflings) often have large Quickness bonuses and will move disproportionately fast considering their short strides. For purposes of this rule, simply note that the stride of the average 6' person is used as the norm; every 6" difference will result in an add or subtraction of 5. One of the following **stride modifications** is added to the Base Movement Rate:

STRIDE MODIFICATION CHART

Height	Modification Due to Stride
7'10" — 8'3"	+20
7'4" — 7'9"	+15
6'10" — 7'3"	+10
6'4" — 6'9"	+5
5'10" — 6'3"	0
5'4" — 5'9"	-5
4'10" — 5'3"	-10
4'4" — 4'9"	-15
3'10" — 4'3"	-20
3'4" — 3'9"	-25
2'10" — 3'3"	-30
2'4" — 2'9"	-35
1'10" — 2'3"	-40

Encumbrance Penalty: A character's Base Movement Rate may be reduced due to the amount of weight he carries. This factor is discussed in the next section (7.2.2).

Pace

Each round a character must decide the Pace at which he wishes to move. This Pace has three effects on actions during that round:

- Determines the movement rate (pace multiplier x Base Movement Rate)
- Determines the difficulty of any movement maneuver required
- Determines how many "exhaustion points" are expended (see Section 7.2.3).

The following chart summarizes those effects:

PACE CHART

Pace	Pace Multiplier	Normal Maneuver Difficulty	Exhaustion Point Cost/Rnd
Walk	1x	none	1 every 30 rnds
Fast Walk/Jog	1.5x	routine	1 every 6 rnds
Run	2x	easy	1 every 2 rnds
Sprint/Fast Run	3x	light	5/rnd
Fast Sprint	4x	medium	25/rnd
Dash	5x	hard	40/rnd

Encumbering loads (see Section 7.2.2) and armor will prevent anyone from reaching certain speeds (regardless of their bonuses). A super character with racial adds to his +25 bonuses for Quickness and Strength may move quite far walking even while burdened with armor and a heavy load. Nonetheless, he could not move at either a "Fast Sprint" or "Dash" rate (depending upon his armor). The following prohibitions apply:

PACE LIMITATIONS CHART

Penalty	Prohibited Pace
Armor Qu Penalties -10 to -15	Dash
Armor Qu Penalties -16 to -45	Dash, Fast Sprint
Armor Qu Penalties -46 plus	Dash, Fast Sprint, Sprint
Up to 2x Wt. Allowance	None
From 2x up to 4x Wt. Allowance	Dash
From 4x up to 6x Wt. Allowance	Dash, Fast Sprint
6x Wt. Allowance and up	Dash, Fast Sprint, Sprint



Movement Maneuvers

Use the maneuver chart for movement under pressure. Where an individual or group is "under pressure" from attackers, the weather, or some other perceived threat — or time is a major factor — have him/them roll on the Maneuver/Movement Table 8.2.2. Simply determine the appropriate difficulty (from the Pace Chart, or by GM assignment); the result is the percentage of the distance they would normally move given their rate of speed. It is possible to move faster than normal due to this process.

Example: *Bandring is fleeing from the dreaded Malevolent Moose. He has a Base Movement Rate of 60'/rnd, he is running, and thus he would normally move 120' per round. Due to the pressure of the chase, however, the GM asks him to roll on the Maneuver/Movement Table. Bandring knows the terrain, so the difficulty is "Easy" (see Pace Chart). Bandring rolls an adjusted D100 and the result is '100'. He moves the full 120 feet. Had he rolled lower and gotten a '50' result, he would move but 60' that round. Had the chase been at night a higher difficulty category may have been applicable.*

ENCUMBRANCE (7.2.2)

The problems associated with wearing armor and other coverings ("non-dead" weight) are covered elsewhere (see the Maneuver/Movement Table 8.2.2 and the Armor Table 8.2.4). Here we are dealing with "dead weight," that which one carries rather than wears. The encumbrance penalties discussed here apply to the Base Movement Rate (see Section 7.2.1).

Basically, each character has a "weight allowance" equal to 10% of his own weight. If he is carrying dead weight less than or equal to his weight allowance, he has no encumbrance penalty. A character's encumbrance penalty is based upon the number of increments of "weight allowance" that the dead weight consists of (see chart below). A character's Strength stat bonus may cancel some or all of his encumbrance penalty.

The following steps should be taken to calculate encumbrance penalties:

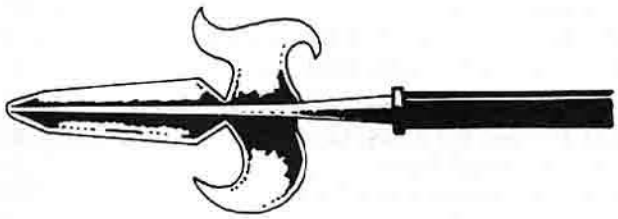
1) Calculate the normal body weight for the character.
2) Calculate the character's weight allowance (10% of his weight).
3) Determine how much "dead weight" (in pounds) the character is carrying; this is his "load."
3) Divide the load by the weight allowance.
4) Determine the encumbrance penalty using the chart below.

ENCUMBRANCE CHART

Number of weight allowance units in load		Encumbrance Penalty
More Than	*Less Than or Equal to*	
0x	1x	0
1x	2x	-10
2x	3x	-20
3x	4x	-25
4x	5x	-30
5x	6x	-35
6x	7x	-40
7x	8x	-50
8x	9x	-60
9x	10x	-70
10x	11x	-80
11x	12x	-90
12x	13x	-100
13x	14x	-110
14x and up		-120



Strength Stat Bonus: Once a character has determined his encumbrance penalty, his Strength stat bonus may be used to cancel all or part of this penalty (see Section 5.2.2). If his Strength stat bonus is greater than his encumbrance penalty, the difference may be used to cancel all or part of the character's armor Quickness penalty (see Section 7.2.1).



EXHAUSTION (7.2.3)

Movement under extreme conditions, in rough terrain, and/or at accelerated rates will increase fatigue. For this reason we include rules for exhaustion at this point. We also include provisions for exhaustion due to melee and bow fire.

Each person has a base number of exhaustion points equal to his Constitution stat. This is the number of points he can expend before he has to rest and/or recuperate. (e.g., when fully rested a character with a Constitution of 90 would have 90 exhaustion points). Characters who have used all of their exhaustion points are at -100 to all activities and must rest. Expended exhaustion points may be recovered at a rate of one per round rested.

Exhaustion due to Pace: Each round that a character moves he expends exhaustion points at a rate determined by his Pace. This rate ranges from 1 every 30 rounds for a Walking Pace to 40 per round for a Dash Pace. These rates are listed in the Pace Chart in Section 7.2.1. A character without sufficient exhaustion points to complete a full round at a given pace cannot travel at that rate of speed.

Example: *An unencumbered Bandring travels 50' per round (i.e., his Base Movement Rate is 50) when walking. His Constitution is 90 and he can walk for 2700 rounds (450 minutes) without a rest but he would be totally exhausted thereafter. If he were to sprint he could move at a rate of 150' per round; but he would exhaust his 90 exhaustion points in 18 rounds (3 minutes) at that pace (5/round x 18 rounds = 90). If Bandring were moving in a breastplate and with a 3x weight allowance load, his Base Movement Rate would be reduced to 20' per round and he would have to "Sprint" (and exhaust himself as indicated) in order to cover 60' per round.*

Exhaustion and Combat: When fighting, a character necessarily expends more energy than he would while walking. Thus, the following expenditures should apply.

COMBAT EXHAUSTION CHART	
Character's Situation	**Exhaustion Point Expenditure**
Melee	1 every 2 rnds
Missile Fire	1 every 6 rnds
Concentration	1 every 6 rnds

Exhaustion modifiers: The following factors may affect the way a character expends exhaustion points. They provide detail, but may be considered optional. Only one modifier of a given type should be applied (e.g., one temperature mod., one terrain mod., one time without sleep mod.).

EXHAUSTION MODIFIER CHART	
Factor	**Modification to Exhaustion Points Expended**
Temp. above 100°F	2x
Temp. above 120°F	4x
Temp. above 130°F	8x
Temp. below 20°F	2x
Temp. below -10°F	3x
Temp. below -30°F	5x
Temp. below -50°F	8x
Rough Terrain	2x
Mountainous Terrain	3x
Sand	3x
Bog	4x
Hits or wounds above 25%	2x
Hits or wounds above 50%	4x
More than 10 hours without sleep	2x
More than 15 hours without sleep	3x
Increase Mod. by 1 for each additional 5 hrs without sleep.	

SUMMARY (7.2.4)

Base Movement Rate = 50 feet per round

+	Quickness stat bonus	(see Section 7.2.1)
+	race Quickness stat bonus	(see *ChL* Table 15.5.1)
+	stride modification	(see Section 7.2.1)
+	encumbrance penalty	(see Section 7.2.2)
+	armor Qu penalty	(see Table 8.2.4)
+	Strength bonus	(only cancels previous 2 modifications)

Example: *Bandring is a High Man (race Quickness stat bonus of -5) with a Quickness of 90 (stat bonus of +10). He is 6'7" tall so his stride modification is +5. His weight is 220 pounds and he is carrying 27 pounds of dead weight; thus his encumbrance penalty is -10, since 27 lb. is between 1x and 2x his weight allowance of 22 lb. (10% of his weight of 220). His Strength of 85 (bonus +5) plus his race ST stat bonus (+10) will cancel this encumbrance penalty, but it will not add anything to the Base Maneuver Rate. Bandring wears AT 14 with a standard Quickness Penalty of -10. This armor penalty is reduced to -5, since 5 of this penalty is canceled by his Strength bonus of +15 and because his encumbrance penalty was only -10. His armor QU penalty can never exceed -5 because his total QU bonus is only +5.*

So his Base Movement Rate is:

55 = 50 (standard movement rate) +5 (stride modification) +10 (Qu stat bonus) -5 (race Qu stat bonus) -10 (encumbrance penalty) -10 (armor penalty) +5 (St stat bonus) +10 (race St stat bonus)

Movement Process Summary

1) Determine current Base Movement Rate (see above).
2) Determine Pace (check restrictions).
3) Movement Rate / round = (Base Movement Rate) x (Pace multiplier).
4) If pressure situation, make a maneuver roll (Section 7.2.1).
5) Expend exhaustion points (Section 7.2.4).

8.0 ARMS LAW TABLES

All of the *AL&CL* tables are grouped together by type: i.e., all critical tables together, all attack tables together, etc. In addition, all of the tables are found in back of this product for ease of use. The original numbering scheme is maintained because most ICE products refer to these tables by the original numbering scheme.

In order to help alleviate some of the problems caused by this organization, we have provided a Table Index on page 95 **and** a Table of Contents on pages 2 and 3. In addition the following listing provides page numbers for all of the *Arms Law* tables.

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9.0 OPTIONAL RULES

This section provides some optional rules for use with *AL&CL*. They can provide more flexibility and detail within the framework of the basic rules. However, they can involve complications and additional bookkeeping. A GM should examine these rules and determine which ones are appropriate for the pace, flavor, and detail he wishes to inject into his game.

9.1 CHANGING TARGETS

In certain circumstances in which a character changes targets, he may take an OB mod against this target for one attack. In all cases, the character must be aware of the new target in order to face it.

In Fire Phase (A): If the firer attacked a target in Fire Phase (B) of the previous round and/or the Melee Phase of the previous round, he must take a -20 mod to his attack if the new target is 0° to 90° from the previous target or a -40 mod to his attack if the change is 91° to 180°.

In Fire Phase (B): If a character fired at a target in Fire Phase (A), he must take a -20 mod to his attack if the new target is 0° to 90° from the previous target or a -40 mod to his attack if the change is 91° to 180°.

In Melee Phase: If a character fired at a target in Fire Phase (A), he must take a -20 mod to his attack if the new target is 0° to 90° from the previous target or a -40 mod to his attack if the change is 91° to 180°.

In Melee Phase: If a character fired at a target in Fire Phase (B), the new target must be within 0° to 90° of the previous target and the character takes a -30 mod to his attack. If the change is 91° to 180°, the character will be unable to melee the new target, but he can change the target's attack (if any) to a flank attack instead of a rear attack.

9.2 MISSILE WEAPONS IN MELEE

In general, missile weapons cannot be used while engaged in melee. However, a GM may allow a relatively small one-handed weapon (e.g., a thrown dagger) to be thrown in melee in certain situations. The potential firer must be able to make a normal melee attack (e.g., may not have performed earlier actions that would prohibit him from making a melee attack).

In such a case, the thrower's opponent should make his melee attack first. Then the thrower should make a maneuver roll to see if he can throw. If successful, the thrower would then be allowed to throw his weapon. If this maneuver is attempted, the character may not make his normal melee attack.

9.3 FIRE WHILE MOVING

A characters using a missile (or thrown) weapon that performs no other actions in a round has the option of combining his movement with Fire Phase (B). In this way, the combatant may move up to 50% of his normal movement allowance, and fire during movement at -50 to his attack. A GM should require a maneuver roll for this action. (e.g., If the character fails the roll, he may only get part of the way through his movement, or perhaps not be allowed to fire.)

Note: *Opponents on "opportunity fire" would have the option of firing at a character attempting such a maneuver before he would fire at them.*

9.4 RELOADING

A character may attempt a maneuver to reload his weapon during any Movement/Maneuver Phase. The percentage of normal activity that is required varies for different weapons from 30% to 300% or more. Each type of reload has a required activity percentage. These "reload times" differs from those in Section 5.2.12 but the effects in play are approximately the same. For consistency, the ***Space Master*** reload times are given for clips, belts, packs, etc.

If the activity % required cannot be completed during a single Movement/Maneuver Phase then it may be continued in the Movement/Maneuver Phase of the next round (e.g., if reloading takes 150% activity, it will take at least one full round and half the activity of another round to complete). If any other action is taken during a reloading maneuver, the reloading is canceled and must be restarted from scratch.

Option 1: A GM may allow a character to reduce the required % activity for a reload by up to 30% of normal activity by taking a OB penalty for his next fire attack. The OB penalty is equal to the activity reduction (e.g., a reduction in reload time of 20% of normal activity would result in a -20 OB mod). For bows and slings, this option closely reflects the standard reload rules.

Option 2: A GM may allow a character to make a maneuver roll to attempt to reload in less than the required time. We suggest that the minimum reload time be no less than half the normal amount. For example, a reload in 50% of the normal time would be a Extremely Hard maneuver, in 75% of the normal time would be a Hard maneuver, etc.

TYPE OF RELOAD	% ACTIVITY
Bow Ammo:	
Short Bow	60
Composite Bow	70
Long Bow	80
Light Crossbow	170
Heavy Crossbow	230
Miscellaneous:	
Sling	50
Drawing a Weapon	20
Sheathing a Weapon	30
Picking up a Weapon	40
Changing Weapons	50
Shift Weapon to Other Hand	10
Projectiles (e.g., a shot from a gun):	
Single Shot	30
Clip	50
Belt	100
Energy Power Supplies:	
Cell	50
Cartridge	75
Pack	100

9.5 CHANCE FOR INITIATIVE DETERMINATION

If a GM wishes to make initiative determination a little less deterministic, he can have each combatant roll 2D10 and add the result to his initiative point total (see Section 6.1). To make this factor less important, only roll 1D10; to make it more important, use more dice.



9.6 SHIELD BASH

When using this optional rule, a character may use his shield to attack (called a "shield bash"). This attack is treated as a Small (or possibly Medium) "Bash" attack (Table 11.1.6). If using skill development for expertise, skill with this attack must be developed separately from the weapon used in the right hand and all of the two weapon rules (see Section 5.1) apply.

9.7 WEAPON BONUSES FOR MISSILE WEAPONS

Section 5.2.4 states that weapon bonuses for a bow and an arrow are averaged to obtain the weapon quality bonus for OB calculations. This section presents two other options:

Option 1: *Very Generous* — Apply both weapon bonuses. GMs should handle this option carefully, it can lead to large missile OBs.

Option 2: *Very Conservative* — The weapon quality bonus for a bow and arrow attack is the smaller of the bow bonus and the arrow bonus. For example, a +15 bow firing a +5 arrow only gives a +5 bonus to the attack's OB.

9.8 OPTIONAL ARMOR DAMAGE RULE

A GM should be careful when deciding whether or not to use this optional rule. It does add quite a bit of record keeping.

Armor can take a certain total number of "points of damage" before it falls apart; we will call this total the armor's endurance. A set of armor's endurance is equal to (50 x the armor's type) plus (20 times the armor's DB). Thus a +10 chain hauberk (AT 16) would have an endurance of 1000 = (50 x AT 16) + (20 x (+10 DB)).

Armor damage is determined by damage taken by the character wearing the armor. Each hit taken by the character is 1 point of armor damage, an 'A' crit causes 10 pts, a 'B' crit causes 20 pts, a 'C' crit causes 30 pts, a 'D' crit causes 40 pts, and an 'E' crit causes 50 pts. Due to normal wear and tear, armor receives 2 points of damage for every week (or portion of a week) that it is worn.

The amount of damage that a set of armor has taken can cause an increase in the severity of critical taken by the wearer. If the damage taken totals 0%-19% (round off) of the armor's endurance the severity of any crits is not affected. Between 20% and 39% the severity of any crits is increased by one to a maximum severity of 'E' (i.e., A's become B's, B's become C's, C's become D's, D's become E's, E's are unaffected). Between 40% and 59% severity is increased by 2, between 60% and 79% severity is increased by 3, and between 80% and 99% severity is increased by 4. For example if a set of armor has taken damage equivalent 45% of its endurance, A's become C's, B's become D's, and C's, D's, and E's are become E's. Certain animal attack criticals can become F's.

If the total damage taken by a set of armor is less than or equal to 20%, a character may repair it himself at a rate of 1% for each 2 hours spent. We suggest a cost of materials of 1% of the armor's cost for each 10% of damage repaired. If the total damage taken is over 20% a special craftsman and equipment is required for repairs. The craftsman and equipment must be appropriate for the type of material involved; normally a smith for standard metal armor and a leather-worker for standard leather armor. We suggest a time requirement of 1 day per 10% repaired, and a cost of 1% of the armor's cost for each 2% of damage repaired. For damage above 60% we suggest 1 day per 5% repaired and a cost of 3% of the armor's cost for each 2% of damage repaired. These prices are based upon the normal price for a standard set of that type of armor. A GM may wish to make allowances for special or magical armor.

For characters with "smithing" or "leather-working" skill access to proper equipment and material should be required. In addition, the character should have to make a maneuver roll each day to see if his repair attempts have been successful.

9.9 BARE HAND ATTACKS

If a character without martial arts training wishes to attack a foe with his bare hands, he may use:

- A Martial Arts Striking attack (Rank 1) that only delivers Unbalance criticals, **or**
- A MA Sweeps & Throws attack (Rank 1) that only delivers Grapple criticals

The Striking attack represents striking the foe with his fists, while the Sweeps & Throws critical represents an attempt to grapple or wrestle the foe. In either case, if the character is untrained in an unarmed combat technique (e.g., boxing, wrestling, karate, etc.), the attack receives a -25 skill bonus in addition to the normal OB modifications.

> See Section 10.3 for some non-***RM*** guidelines for unarmed combat and the use of the martial arts tables.

9.10 ADDITIONAL EFFECTS OF "STUN" ROUNDS

A combatant's *total hit points* is the number of hits he can take without becoming unconscious (see *ChL* Section 3.8). A combatant will lose consciousness if his total number of accumulated rounds of "stuns" exceeds:

ß = 5 + [the combatant's total hit points ÷ 10] *(round off)*

If not unconscious due to some other cause, a combatant will regain consciousness when his total accumulated rounds of "stuns" becomes less than ß above.

Example: *Coma (often called the "Dwarven Punching Bag") "trips" and falls into an open pit. The fall does not hurt him, but the sudden stop on the solid rock at the bottom delivers two B-severity Krush criticals. In addition, the sharpened spikes someone carelessly left imbedded the bottom deliver five A-severity puncture criticals. Coma is lucky, the criticals do not do any significant damage (just a bunch of hits); however, the total number of stun rounds from the seven criticals is 17. Since Coma's can take 77 hits before passing out, he passes out if his stun round total exceeds 13 (= 5 + (77 ÷ 10)) rounds of stun. Thus Coma is unconscious. If nothing else happens to him, he will regain consciousness in 4 rounds (= 17 - 13).*

SAMPLE HERBS

Name	Home	Form	Prepare	Apply	Effect
Abass	Coastal Beaches	Green Leaf	Crush	Eat	Cure (2-12)
Fiis	High Altitude Lakes	Tree Resin	Dilute	Drink	Cure (1-5)
Thurl	Forests (comon)	Brown Clove	Brew	Drink	Cure (1-4)
Mirenna	Vales Above 10,000' (Rare)	Silvery Berry	—	Chew	Cure (10)
Harfy	Hilly Regions	Scrub Resin	Dry	On Wound	Stops Bleeding
Ucason	River Bands (Rare)	Yellow Grass	Burn	Inhale	Cures Blindness
Jojojopo	Base of Glaciers	Grey Leaves	Dry	On wound	Cures Frostbite
Naza	Plains	Red Leaf	—	Chew	Neutralize Poison
Olvar	Bay fo Glass Spires	White Flower	—	Chew	Lifekeeping (1 days)
Kathkusa	Nothern Icy Plains (Rare)	Green Leaves	—	Chew	2X Strength (2-5 rnds)
Nelisse	Volcano of the Udahir	White Leaves	Brew	Drink	Euphoria and Nutrition
Agaath	Mountains Above 20,000	Blue Berry	—	Eat	Breathe at High Altitudes

10.0
NON-ROLEMASTER GM GUIDELINES

10.1 HEALING GUIDELINES

A GM should develop a comprehensive healing system for his world. This is a factor that controls how many and how often characters die permanently and how long they are out of commission healing.

Healing spells

In a campaign game, the GM may want to make healing spells available in towns and cities. The GM should experiment with costs and requirements for healing services. This could range from spell users requiring only money for their services to spell users who will only heal "true believers" of their religion (or race). A complete set of healing spells is provided in *Spell Law* for healing by a variety of professions.

Healing herbs

One of the prime ingredients of a healing system is herbs (drugs). Herbs may be used to simulate the effects of certain spells in performing miraculous cures, are portable, and are usually much more available than high level healers. The GM can experiment with the numbers, prices and effects of whatever herbs he feels are necessary in his game. On the previous page we present an example some herbs found in one area of a fantasy would; other drugs might be available in other areas.

Natural healing

We suggest that concussion hits heal at a rate of 1 each hour if resting, and every 3 hours if active.

The Healing Recovery Chart provided in this section gives the recovery time for a variety of injuries.

Effects of injuries

Another key factor in a healing system is the effect of the wound after being cured (by spells or herbs); some considerations in this area are: how long does it take to recover? should there be any permanent damage (often reflected in a lowering of stats)? what effect would the wound have on the character while he is recovering? Most of these questions are very subjective and must be decided on a case to case basis. For example, having an arm cut off and then reattached might cause a loss of agility (temporary or permanent) and maybe a scar. Death and being raised from the dead might cause a general loss of abilities, partial loss of experience, and scars. Due to the variety of character systems which exist, these elements will not be detailed in *AL&CL*.

HEALING RECOVERY CHART

This chart provides recovery times for most general injuries. When using it, apply the character's Constitution bonus to any roll. The result is the recovery time for light injuries. Multiply the figure by 5 for medium injuries and by 10 for severe injuries. Halve the recovery time if the victim is hospitalized or placed in some other special care.

	TYPE OF DAMAGE (in days)					
ROLL	Burn	Bone	Tissue	Head	Organ	Muscle/ Tendon
01-15	3	5	3	10	9	7
16-35	2	3	2	7	6	4
36-65	2	2	1	5	4	3
66-90	1	1	1	3	3	2
91+	1	1	1	2	2	1

10.2 AD&D® CONVERSION NOTES

Since AD&D® (see the * note at the end of this section) is the role playing game that most people are familiar with, we will present some conversion notes as an example of how *AL&CL* can be used with another FRP system.

To use *AL&CL* as a combat system with AD&D® substitute the *AL&CL* attack tables for the AD&D® Hit & Damage Procedure.

To Hit

Each +1 bonus in the AD&D® system gives a bonus of +5 to *AL&CL* OBs.

Damage Bonuses

Each +1 damage bonus gives a +1 bonus to *AL&CL* OBs. The damage bonus is **not** added to the damage given.

Level Adds

Fighters should be given a +5/level bonus to their OBs, clerics +3 or +4/level, thieves +2 or +3/level, and magic users +1/level.

Weapon Proficiency

In order to incorporate expertise in weapons into AD&D® use weapon proficiency picks. Allow multiple picks for a single weapon, with each pick increasing the OB with that weapon by +5. A weapon used with no proficiency pick has an OB mod of -25.

Initiative Points

Use the Table 8.2.8 normally. Convert 3-18 stats to 1-100 by multiplying by 5 and adding 5 to the total (result 20-95, average 55-60). It is important that quickness or dexterity be expressed in terms of a 1-100 (or equivalent) range, because the other figures are based on the assumption that stats range between 1 and 100.

Stat Bonuses

Use the Chart provided in Section 5.2.2.

Defensive Bonuses

Determine the *AL&CL* armor type by comparing the physical composition of the armor with the *AL&CL* armor descriptions given in Section 4.1. Bonuses for Armor, Dexterity, Spells, Bracers, etc. do not shift the armor type column. Instead, each +1 under AD&D® rules gives a defensive bonus of +5.

Example: *+2 breastplate and greaves (under AD&D®; AC 3 (+2) = AC1); using AL&CL, the armor is AT 18, with a –10 bonus to the wearer's DB.*

Hit Points

AL&CL is designed for a system in which a normal fighter will take almost 100 hits by 10th level. Since the average for AD&D® is about 50, we suggest that you halve hits given under *AL&CL* when using it with AD&D® (round down if you are generous).

General

For conversion to any system, remember: the effectiveness, flexibility, and power of an attack is entirely contained within the offensive bonus of an attacker. So the offensive bonus should represent the potential of the attacker for inflicting damage.

** AD&D® is TSR's trademark for fantasy role playing products, and these references are in no way meant to indicate that ICE has a license from TSR with regard to this or any of our products.*

10.3 MARTIAL ARTS GUIDELINES

If you use the complete ***Rolemaster*** system, ignore this section. It is intended for GMs that use other systems.

Martial Arts in General

In *AL&CL*, the martial arts rules have been designed to maximize playability while maintaining as many facets of real martial arts as possible. The Martial Arts Combat Summary Chart gives the combat capabilities of a sample of the martial arts existing in our world. Any other capabilities of martial artists are dependent upon the character system being used. Combat capabilities are described in terms of 2 attack tables and 2 critical tables devoted to martial arts. All normal *AL&CL* combat rules apply — unless they are specifically superceded by the guidelines provided in this section.

The Martial Arts "Forms"

The martial arts forms given are broad generic classifications and represent no specific style. The GM may modify any or all of the statistics given to simulate a specific martial art form. The forms given are primarily intended to provide an example of how the system can be used.

We suggest that any player-character wishing to run a martial artist (warrior monk) be allowed to choose (or be assigned) one of the forms given. The fantasy role player level values (experience or skill level) would determine the rate of progression of combat capabilities. Level capabilities that are not given can be easily extrapolated. It is suggested the non-trained characters be treated as novice boxers and novice wrestlers.

Kung Fu is the source of most martial art forms (it has no belt system, but belts are included for comparison purposes). Kung Fu requires spiritual and mental training as well as physical training and thus the stats given are superior to the other forms (Kung Fu progresses equally in striking and sweeps and throws). It is suggested that characters wishing to be Kung Fu martial artists be given certain restrictions. Suggested restrictions include:

1) a background (youth) spent in a religious order or retreat;

2) a specific mission in life due to the background;

3) personal enemies due to affiliation with the religion; and/or

4) a very, very strict alignment of good (or evil).

Martial Arts OBs

The OBs given on the Martial Arts Combat Summary Chart include bonuses for expertise and level, but mot for personal characteristics (strength, agility, etc.). A GM should examine the normal *AL&CL* offensive bonuses of his standard characters and compare them to the stats given. If there is a large difference, merely reduce the offensive bonuses given by 25-50%. The stats given are those obtained when using ICE's character development system.

Increased Initiative Points

Only martial artists may use part of their offensive bonus to increase their first strike points (see Section 6.1). For every 5 points that the martial artist decreases his offensive bonus by, his initiative total is increased by 10 points. This reflects a martial artist's capacity to focus his attack upon a very fast lethal blow.



Multiple Attacks Against the Same Foe

Certain Martial artists may make two attacks against the same foe in one round (if "Speeded" or "Hasted" a martial artist can make 4 attacks). Factor #1 following an OB on the Martial Arts Combat Summary Chart indicated the number of allowable attacks against the same foe. If this factors is not given for a given MA rank, the martial artist may not make multiple attacks against the same foe with that MA rank.

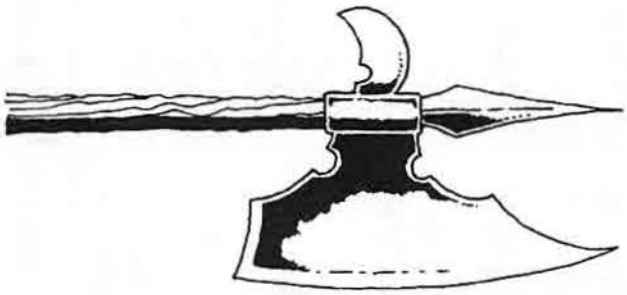
To make multiple attacks, the martial artist must decrease his OB by 30, he must split his OB between attack and parry in the same manner for both attacks, and he must be using Martial Arts.

Example: *Syr-istor (Black Belt, 3rd D., Japanese) has a +100 OB in MA Striking Rank 1 ("100 2/3/180° ") and chooses to attack Argund twice in one round. Because he is striking twice in the same round, he subtracts 30 from the OB applied to each attack (i.e., he makes two +70 MA Striking Rank 2 attacks). Of course, he may use part of his OB to parry, and he still has the option of only attacking once at +100.*

Engaging Multiple Foes

Only martial artists can engage multiple foes in the same round of combat, without using special abilities or aid from spells (e.g., "Speed", "Haste", etc.). Factors #2 and #3 following an OB on the Martial Arts Combat Summary Chart indicated the number of allowable foes and the maximum allowable angle of separation of these foes. If these factors are not given for a given MA rank, the martial artist may not engage multiple foes with that MA rank. To engage multiple foes, a martial artist must be using martial arts (unarmed combat) and he must subtract 20 from his OB for each foe engaged. He must also allocate his remaining OB between attack and parry in the same manner against all foes engaged.

Example: *Vemtar (Black Belt, 2nd D., Korean) has a +80 OB in MA Striking Rank 1 and is fighting two foes. He can attack one with his full +80 OB or both with a +60 OB against each (80 - 20). Since the chart indicates he can engage 2 foes within 180°("80 1/2/180°"), he can fight the two foes regardless of their angle of separation (e.g., even against one frontal and one rear attacker).*



Interpreting the Martial Arts Combat Summary Chart

The example below shows how the combat statistics can be interpreted using the guidelines above and the key found at the bottom of the Martial Arts Combat Summary Chart.

Example: *Consider a martial artist with a 3rd degree black belt in Japanese style karate. His DB of 60 applies to all foes that he is aware of. This example ignores weapon Kata.*

He could choose to fight using any one of his 8 rank abilities (4 striking, 4 sweeps and throws), or he could attempt to grapple with an offensive bonus (OB) of 50 (maximum result on the Grapple attack table of Small).

- *With **striking rank 4** and **all four sweeps and throws ranks**, he could only fight one target per round with the OB given.*
- *However, with **striking rank 3**, he could:*
  *1) Fight 1 foe with a 70 OB, **or***
  2) Fight 2 foes (within a 90° arc) with a 50 (=70-20) OB against each.
- *With **striking rank 2** he could:*
  *1) Fight 1 foe with an 85 OB, **or***
  2) Fight 2 foes with a 65 (=85-20) OB against each.
- *With **striking rank 1** he could:*
  *1) Fight 1 foe with a 100 OB (1 attack), **or***
  *2) Fight 1 foe with a 70 (=100-30) OB (2 attacks), **or***
  *3) Fight 2 foes with an 80 (=100-20) OB (1 attack each), **or***
  4) Fight 3 foes with a 60 (=100-20-20) OB (1 attack each).

Effect of Weapon Kata

Certain martial artists use weapons as part of their *Kata* (kata are patterns of attack and defense that form the basis for the various forms of martial arts). Weapon kata may be used if a -20 modification is made to the OB of the particular rank being used. Normal martial arts weapons include knives (daggers), jo sticks, nunchakus, tonfas, various swords, and other exotic weapons. A GM may wish to limit which types of weapons may be used and at which level of development in martial arts training their use should begin.

It is suggested that knife kata be allowed at striking ranks with an offensive bonus (OB) of at least 50, and stick kata be allowed for sweeps and throws ranks with an OB of at least 50. It is further suggested that each martial artist be allowed to pick two other appropriate weapon kata that can be utilized by a rank that has an OB of 90 or more.

A weapon kata attack is resolved in the following manner:

1) A normal attack is conducted on the appropriate martial arts attack table (striking or sweeps and throw). A OB modification of -20 is applied.
2) The weapon being used may be fumbled as specified in Section 6.2-6.3. However, the fumble range is decreased by 1 for each increment of 10 that the OB is over 50 (round down and the range can never be reduced below 2).
3) The number of concussion hits indicated on the martial arts attack table is increased by: the difference between the maximum number of hits the weapon can give [to the armor type (AT) being attacked] and the maximum number of hits that can be given to the AT being attacked by the martial arts attack table being used. The result is the actual number of concussion hits inflicted by the weapon kata.

   Kata Hits Delivered = normal MA hits +
   (Max Weap. Hits vs. that AT) - (Max MA Hits vs. that AT)
4) In addition to the normal (if any) critical strike indicated by the martial arts attack table, a weapon kata also inflicts a second critical of one severity level less [e.g., a result of C on the martial arts (m.a.) striking attack table would also inflict a B Slash (or Puncture) critical if a knife were used]. **Important:** Only one die roll is made to resolve both criticals. The type of extra critical is always Unbalancing for sweeps and throw for weapons kata, while the extra critical type can be Slash, Puncture, or Krush for striking weapon kata. If more than one type of critical is appropriate for a given striking weapon kata, the attacker should choose which is to be applied — before the attack roll.

   Example: *Consider a martial artist with a rank 1 striking OB of 110. He decides to use a weapon kata utilizing a morning star against a foe with an armor type (AT) of 9(-30). His OB is reduced to 90 (110-20) due to using a weapon kata (-20) found on Offensive Bonus Modification Chart). A morning star normally fumbles on 01-08; but his OB is 40 more than 50, so he would only fumble on an attack roll of 01-04.*

   He makes an attack roll of 45, thus his net attack roll is 45 (attack roll) + 90 (OB) – 30 (defender's DB) = 105. If he had made a higher attack roll, it would not have changed the result because the maximum result for a rank 1 attack is 105. The result from the martial arts striking attack table is "10B."

   The maximum number of concussion hits that a morning star can inflict upon AT 9 is 27, the maximum for a MA striking attack against AT 9 is 19; so the actual number of concussion hits inflicted is 18 (=10+27-19).

   The critical damage is a 'B' martial arts Striking critical and an 'A' Krush critical are applied to the defender. Thus, if the martial artist rolled a critical result of 52; the 'B' MA Striking critical would stun the foe for 1 round and inflict 6 concussion hits, while the 'A' Krush critical would force a parry at –25 for one round and inflict 5 more concussion hits.

   The grand total of damage would be: 29 (=18+6+5) hits, stunned one round, and forced to parry at –25 the next round (the worst damage inflicted is applied first).

MA Offensive Bonus Modifications (cumulative)

–20 ..... For each foe over 1 engaged during a given round.

–30 ..... For using two attacks versus one foe in a given round.

–20 ..... For using a weapon kata.

MARTIAL ARTS COMBAT SUMMARY CHART

(Do not use this chart if you use Character Law)

Form	Belt/Degree	FRP Level	DB	Statistics for Striking OB #1/#2/#3 Rank1	Rank 2	Rank 3	Rank 4	Statistics for Sweeps&Throws OB #1/#2/#3 Rank 1	Rank 2	Rank 3	Rank 4	Grapple
Karate (*Japanese*) (*Okinawan*)	Yellow	1/2	5	10	-25	-25	-25	0	-25	-25	-25	S 5
	Purple	2	20	30	20	-25	-25	5	-25	-25	-25	S 10
	Brown	4	30	50	40	20	10	10	5	-25	-25	S 20
	Black 1st Degree	6	40	70 1/2/90°	60	45	30	20	10	-25	-25	S 30
	2nd Degree	8	50	90 1/2/180°	75 1/2/90°	60	45	30	15	5	-25	S 40
	3rd Degree	10	60	100 2/3/180°	85 1/2/180°	70 1/2/90°	55	40	20	10	5	S 50
	4th Degree	13	63	110 2/4/180°	100 1/3/180°	85 1/2/180°	65 1/2/180°	50 1/2/90°	25	15	10	M 55
	5th Degree	15	65	120 2/5/180°	110 2/4/180°	95 1/3/180°	75 1/2/180°	60 1/2/180°	30	25	20	M 60
Karate (*Korean*)	Yellow	1/2	5	10	-25	-25	-25	5	-25	-25	-25	S 10
	Green	1	10	20	5	-25	-25	10	5	-25	-25	S 20
	Blue	3	25	40	25	10	-25	20	10	-25	-25	S 30
	Brown	4	30	50	40	20	10	30	15	-25	-25	S 40
	Black 1st Degree	5	35	60 1/2/90°	45	30	15	40	20	10	5	M 50
	2nd Degree	7	45	80 1/2/180°	65	50	35	50 1/2/90°	25	20	10	M 60
	3rd Degree	9	55	95 1/3/180°	80 1/2/90°	60	50	60 1/2/180°	30	25	15	M 70
	4th Degree	11	61	105 2/4/180°	90 1/2/180°	70 1/2/90°	60	70 1/3/180°	40	30	20	M 80
	5th Degree	13	63	110 2/5/180°	100 1/3/180°	80 1/2/180°	70 1/2/90°	80 1/3/180°	50 1/2/90°	40	30	M 85
Judo	Yellow	1	10	10	-25	-25	-25	20	5	-25	-25	S 10
	Green	2	20	20	-25	-25	-25	30	20	-25	-25	S 30
	Brown	4	30	30	-25	-25	-25	50 1/2/90°	40	30	20	M 40
	Black 1st Degree	6	40	40	-25	-25	-25	70 1/2/180°	60 1/2/90°	50	40	M 50
	2nd Degree	8	50	50	-25	-25	-25	90 1/3/180°	80 1/2/180°	70 1/2/90°	60	M 60
	3rd Degree	10	60	55	-25	-25	-25	100 2/3/180°	90 1/3/180°	80 1/2/180°	70 1/2/90°	M 70
	4th Degree	13	63	60	-25	-25	-25	110 2/4/180°	100 1/3/180°	90 1/3/180°	80 1/2/180°	M 80
	5th Degree	15	65	65	-25	-25	-25	120 2/5/180°	110 2/4/180°	100 1/3/180°	90 1/3/180°	M 90
Kung Fu	Yellow	1	10	20	5	-25	-25	20	5	-25	-25	S 20
	Green	3	30	40	30	15	-25	40	30	15	-25	S 40
	Brown	5	50	60 1/2/90°	50	40	30	60 1/2/90°	50	40	30	M 50
	Black 1st D.	7	60	80 2/2/180°	70 1/2/90°	60	50	80 2/2/180°	70 1/2/90°	60	50	M 60
	2nd Degree	10	70	100 2/3/180°	90 1/2/180°	80 1/2/90°	70	100 2/3/180°	90 1/2/180°	80 1/2/90°	70	M 70
	3rd Degree	15	75	120 2/4/180°	110 2/3/180°	100 1/2/180°	90 1/2/90°	120 2/4/180°	110 2/3/180°	100 1/2/180°	90 1/2/90°	M 90
	4th Degree	20	80	130 2/5/180°	120 2/4/180°	110 1/3/180°	100 1/2/180°	130 2/5/180°	120 2/4/180°	110 1/3/180°	100 1/2/180°	M 100
	5th Degree	25	82	140 2/6/180°	130 2/5/180°	120 2/4/180°	110 1/3/180°	140 2/6/180°	130 2/6/180°	120 2/4/180°	110 1/3/180°	M 110
Wrestling	Novice	1	0	5	-25	-25	-25	10	-25	-25	-25	S 20
	Beginner	3	5	10	-25	-25	-25	20	-25	-25	-25	S 30
	Intermediate	5	10	15	-25	-25	-25	40	10	-25	-25	M 50
	Trained	7	15	20	-25	-25	-25	50	20	-25	-25	M 70
	Expert	10	20	25	-25	-25	-25	70	30	10	-25	M 90
Boxing	Novice	1	5	20	-25	-25	-25	5	-25	-25	-25	S 5
	Beginner	3	10	40	-25	-25	-25	5	-25	-25	-25	S 5
	Intermediate	5	15	60	20	-25	-25	5	-25	-25	-25	S 5
	Trained	7	20	80	40	-25	-25	5	-25	-25	-25	S 5
	Expert	10	25	100	60	20	-25	5	-25	-25	-25	S 5
Sumo Wrestling	Expert	15	20	15	-25	-25	-25	60	20	10	-25	L 120

Form: The style of martial arts as it is known in our world today. This is a very general, generic classification.

Belt/Degree: Ranking in the particular style.

FRP Level: Fantasy Role Playing Level; the equivalent level of an average character with these abilities (useful for resistance rolls and player characters).

DB: Defensive Bonus; defined in Arms Law rules. Applies to all attackers that the martial artist is aware of.

Rank #: Rank # limits the maximum possible result on the attack table used. Rank statistics for striking use the Martial Arts Striking attack table. Rank statistics for sweeps and throws use the Martial Arts Sweeps and Throws Attack Table. The ranks represent increasingly complex and deadly forms of attack.

Grapple: Statistics of handling grappling or wrestling a foe (can be used for subdual).

S,M, or L: The maximum result allowed on the Grapple/Envelop attack table (i.e. Small, Medium, or Large).

#: Offensive Bonus when grappling.

OB #1/#2/#3: See Section 10.3. Each rank one set of these combat statistics; each round the combatant must choose one of these sets of statistics to use. If #1,#2, and #3 are left out they are assumed to be "1/1/—".

OB: The Offensive Bonus (OB). The OB can be used for parry or attack or part on both. However, the same proportions must be used on attack and parry for all foes fought and all attacks made.

#1: The number of attacks which may be made against one target in a given round (if two attacks are made against the same target the OB for both attacks is decreased by 30).

#2: The number of different foes which can be attacked in a given round (the OB is decreased by 20 for each foe over 1 engaged).

#3: The maximum allowed angle of separation for different foes engaged in a given round (i.e., 90° means all foes must be within an arc of 90°, 180° means all foes engaged can be in any relative position around the martial artist). Of course, all foes must be adjacent to the martial artist.

WEAPON STATISTICS CHART

Weapon	Type	Wt.	Len.	F	RANGE MOD (in feet) 10	25	50	100	150	Table Used	ARMOR MODIFICATIONS 20-17	16-13	12-9	8-5	4-1	Special
Historical Weapons																
Axe (woodsman's)	2H	4-6	2.5-3	4	-30	—	—	—	—	Handaxe	-5	-5	-5	-5	-5	Normally used as a tool.
Bastard Sword	1HS	4.5-6	3-4	4	—	—	—	—	—	Broadsword	+5	0	-5	-10	-10	
(Hand & a Half)	2H			5	—	—	—	—	—	2H-Sword	-5	-5	-5	-10	-10	Maximum result is 140.
Blackjack	1HC	1-2	.5-1	1	—	—	—	—	—	Barefist	0	0	0	0	0	E-criticals are treated as D-criticals.
Blow Gun	MIS	1.5-2	3-6	5	0	0	-20	-40	—	Sling	-5	+10	0	+5	+10	All criticals are punctures.
Boar Spear	PA	5-7	4.5-6	5	-15	-30	—	—	—	Spear	+5	+5	0	0	-5	Animals can't push shaft up if impaled.
Bola (replaces Bola Table)	TH	2-3	3.5-4	7	0	0	0	-20	-40	Grapple	0	0	0	0	0	Maximum result is Large.
Boomerang	TH	.5-1	1.5-2	4	0	0	0	-20	-30	Club	-5	-5	-5	-5	-5	If user trained, it returns.
Cat of Nine Tails	1HC	1-2	2.5-3.5	7	—	—	—	—	—	Whip	-15	-10	-5	0	+10	
Claymore	2H	6-8	2.5-3.5	4	—	—	—	—	—	2H-Sword	-5	-5	-5	+5	+5	Scottish 2H-Sword.
Cudgel	2H	2-3	2-3	3	-35	—	—	—	—	Club	+5	+5	+5	+10	+10	Large walking stick.
Cutlass	1HS	2.5-3.5	2-3	3	-20	—	—	—	—	Broadsword	+5	0	-5	-5	-5	
Darts (throwing)	TH	.5-1	.5	5	0	-10	-20	—	—	Dagger	-10	+5	0	0	0	
Dirk	1HS	.5-1	.5-1	1	-15	-30	-40	—	—	Dagger	+5	+5	0	-5	-5	Scottish Dagger.
Fist (bare)	1HC	-	—	1	—	—	—	—	—	M.A. Striking	0	0	0	0	0	Maximum result is Rank 1.
Fist (armored)	1HC	—	—	1	—	—	—	—	—	Bare Fist	0	0	0	0	0	Bare Fist Table is used for this now.
Foil	1HS	1.5-2	2.5-3.5	3	—	—	—	—	—	Dagger	+10	+10	+10	+10	+10	All criticals are Punctures.
Harpoon	PA	4-5	6-7	4	-5	-20	—	—	—	Javelin	-5	-5	-5	-5	-5	Hard to remove.
Jo	2H	1.5-2.5	4-5	5	—	—	—	—	—	Q-Staff	0	0	0	0	0	Japanese staff.
	1HC			3	—	—	—	—	—	Club	+5	+5	+5	+5	+5	
Katana	1HS	4-6	3.5-4	3	—	—	—	—	—	Broadsword	0	0	+5	+5	+5	Japanese sword.
Lance (medieval)	PA	8-12	10-15	7	—	—	—	—	—	Lance	+10	+10	+5	0	0	If jousting, all criticals are A's.
Lasso	TH	1-2	6.5-10	6	—	—	—	—	—	Entangle	0	0	0	0	0	Maximum result is Medium.
Long Sword	1HS	3.5-5	2.5-3.5	4	—	—	—	—	—	Broadsword	+5	+5	0	-5	-5	
Net (gladiator's)	TH	1.5-3	4-6	5	0	—	—	—	—	Grapple	+5	+5	+5	+5	+5	Maximum result is Large.
Net (fishing)	TH	2-4	5-8	8	-5	—	—	—	—	Grapple	-5	-5	-5	-5	-5	Maximum result is Medium.
No-Dachi	2H	7-9	5-6	5	—	—	—	—	—	2H-Sword	+5	+5	+5	+5	+5	Japanese 2H-Sword.
Nunchaku	1HC	2-3	2.5-3	7	—	—	—	—	—	Morning Star	-5	-5	-5	-5	-5	Okinawan cereal beater.
	2H	2-3	2.5-3	7	—	—	—	—	—	Flail	-5	-5	-5	-5	-5	
Pick	2H	5-8	3-4	6	—	—	—	—	—	Mattock	-10	-10	-10	-10	-10	Normally used as a tool.
Pilum	PA	4.5-5	5.5-6	5	0	-20	-30	—	—	Javelin	+5	+5	+5	+5	+5	Roman throwing spear.
Sabre	1HS	3-4	2-3	3	—	—	—	—	—	Broadsword	0	-5	-5	-5	-5	
Sai (parrying wp)	1HS	2-3	1-2	2	-20	-20	—	—	—	Maine Gauche	-5	-5	-5	-5	-5	+25 vs. melee if not used to attack.
Shuriken	TH	.25-.5	.2-.75	5	0	0	-20	-30	—	Dagger	+5	+5	+10	+10	+10	Japanese throwing star.
Trident	PA	4-6	5-8	5	-15	-30	-40	—	—	Spear	0	+5	+5	+10	+10	
Tomahawk	1HS	3-4	1-2	2	-5	-15	-30	—	—	Handaxe	-10	-10	-10	-10	-10	
Tonfa (special)	1HC	1.5-2	2-2.5	4	—	—	—	—	—	Club	+10	+10	+10	+10	+10	Okinawan rice husking rod.
Fantasy Weapons																
Baw	1HS	4-5	2-3	5	—	—	—	—	—	Handaxe	+15	+15	+10	+10	+10	Can be used as an ice axe.
Cabis	1HS	2-3	1.5-2.5	4	0	0	-10	-25	—	Handaxe	-10	-10	-10	-10	-10	Basically a throwing weapon.
Dag	1HS	5-6	3-4	6	—	—	—	—	—	Falchion	+10	+10	+10	+10	+10	A very large bladed weapon.
Ge	TH	4-6	4-5	8	as Bola					Bola (2x Dam) (a super bola)	+10	+10	+10	+10	+10	Treat any criticals as both K and G. If fumbled, roll a "DG" on thrower.
Irgaak	2H	5-6	5-6	3	—	—	—	—	—	2H-Sword	+15	+15	+15	+15	+10	Roll criticals twice applg all results.
Kynac	1HS	1-2	1-2	2	0	0	0	-25	-40	Rapier	-5	-5	0	0	0	A great throwing dagger.
Long Kynac	1HS	2-3	2-3	3	-20	-20	-20	-50	—	Rapier	+15	+15	+15	+15	+15	A great long dagger.
Shang	1HS	1-2	1-2	1	0	-10	—	—	—	Scimitar (parrying sword)	-10	-10	-10	-10	-10	+30 vs. melee if not used to attack.
Typh	1HC	4-5	3-4	6	0	0	-10	—	—	Flail	-10	-10	-10	-10	-10	If fumbled, roll a "DK" on thrower.
Yarkbalka	1HS	4-5	3-4	6	—	—	—	—	—	2H-Sword	-10	-10	-10	-10	-10	If fumbled, roll a "CS" on thrower.

Type: 2H = Two-Handed Weapon; 1HS = One-Handed Slashing Weapon; 1HC = One-Handed Concussion Weapon; MIS = Missile Weapon (not usable in melee); PA = Pole Arm; TH = Thrown Weapon (not usable in melee).
Wt.: Weight of weapon in pounds.
Len: Length of weapon in feet.
F: Fumble range (a fumble occurs if unmodified attack roll is less than or equal to this number).
RANGE MOD.: Modifications apply to use as missile at ranges less than or equal to the given distance (only one modifier applies). (— means not allowed.)
Table Used: The *AL&CL* attack table used to resolve attack.
ARMOR MOD.: Modifications to the attack roll based upon the armor of the defender.
Special: Varies for each weapon.

11.0
CLAW LAW TABLES

All of the *AL&CL* tables are grouped together by type: i.e., all critical tables together, all attack tables together, etc. In addition, all of the tables are found in back of this product for ease of use. The original numbering scheme is maintained because most ICE products refer to these tables by the original numbering scheme.

In order to help alleviate some of the problems caused by this organization, we have provided a Table Index on page 95 **and** a Table of Contents on pages 2 and 3. In addition the following listing provides page numbers for all of the *Claw Law* tables.

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12.0
ADDITIONAL WEAPON STATISTICS

The weapons given in the historical section of the Weapon Statistics Chart are historical weapons that have actually been made and used in our world. The statistics given are suggested values for their use with *AL&CL*. They indicate which *Arms Law* attack tables to use and what modifications to make. These weapons are intended to be examples of how to use the *AL&CL* system to simulate any weapon.

The weapons in the fantasy section of the Weapon Statistics Chart are fantasy (made up) weapons. They are very powerful and depend on special design and material. They are included to illustrate how you can make up your own weapons using this system.

13.0
ANIMAL AND MONSTER STATISTICS

The animals statistics given in the Animal Statistics Chart are for animals that have actually existed on our world. The statistics given are suggested values for their use with *AL&CL*. They indicate which *AL&CL* attack tables to use and what modifications to make. These animals are intended to be examples of how to use the *AL&CL* system to simulate any animal.

The creatures in the Monster Statistics Chart are fantasy (made up) creatures. They are very powerful; and their use in play often depends on special abilities and the world system being used. They are included to illustrate how you can make up your own monsters using this system.

GMs that want more complete creature descriptions (for animals and monsters) should refer to ICE's *Creatures & Treasures* (see Section 1.1). *C&T* provides complete descriptions for over 500 animals, races, fantastic beasts.

Note: *The OBs and DBs given to monsters and animals are based upon normal* ***Rolemaster*** *values. In these systems, a fighter can have an offensive bonus as high as 80 to 90 at around 5th level. For use with other systems, the OBs and DBs given should be examined for their relation to character bonuses. It may be that the bonuses given should be cut to between 50-70% for some systems.*

13.1 ANIMAL STATISTICS

Most animals will rarely attack a human unless they or their young are threatened. When an attack does occur, however, it is often sudden and ferocious. The ferocity of animal attacks is reflected to a certain degree by the ten animal attack tables found in *Claw Law*. Some of these tables make huge animals more terrible than the most fearsome weapon in *Arms Law*. The comparative ferocity and prowess of animals is subject to the value judgements of the GM.

The Animal Statistics Chart provides some suggested combat capabilities for common earthly animals using the animal attack charts. Only the broad physical characteristics are presented. The tactical application of the animals' characteristics (as well as any unusual abilities) should be developed by the GM.

13.2 MONSTER STATISTICS

A sample of commonly used fantasy monsters is provided on the Monster Statistics Chart. *AL&CL* only provide the Combat capabilities of the listed monsters. Any special abilities (fire-breathing, invisibility, flying, etc.) must be provided by whatever spell and ability system you use in your game.

13.3 DETERMINING THE TYPE OF ATTACK

Each animal described on the Animal Statistics Chart has at least one type of attack and possibly as many as three (Primary, Secondary, and Tertiary). To determine which attack is used, roll percentile dice (1-100). Low (and in the given percent range, the last number) indicates that the primary attack is used while the higher rolls indicate secondary and possibly tertiary attacks.

The GM may always change the given pattern of attack for a given animal or situation; the provided values are only meant to be guidelines for the use of the *Claw Law* tables.

Example: *Examine the Wolverine entry. On a roll of 1-40 the wolverine will use the Bite Attack Table (11.1.2) with an offensive bonus of 50 and a Maximum result of Medium (M). On a roll of 41-50, the wolverine will use the Claw/Talon Attack Table (11.1.3) with an OB of 45 and a Maximum result of Medium. On a roll of 51-100, the Wolverine will make both of the attacks just mentioned.*

An attack marked with a « or √ can as a result of another attack by the same animal has already obtained a critical strike this round.

« — If the attack given on the left (i.e., the primary attack for a secondary attack or the secondary attack for a tertiary attack) has obtained a non-Tiny critical this round, then this attack occurs in the same round.

√ — If the attack given on the left (i.e., the primary attack for a secondary attack or the secondary attack for a tertiary attack) has obtained a non-Tiny critical this round, then this attack occurs in the following round.

opt — The creature may use this attack (usually a weapon) if it desires (usually determined by the GM).

Example: *A Gorgon attacks a man. On its first round of attack it has a 100% chance of using its Medium Horn attack with a 40 OB* ("40MHo100"). *It gives the man a "10AP" result. Since it got a non-Tiny critical result, it makes a Large Bash attack with an OB of 60* ("60LBa«"); *otherwise, it would not have gotten any more attacks in the first round. With the large bash attack, it gives the man an "11BU". Since the Gorgon got a non-Tiny critical with its large bash attack, it will get to make a Large Trample-Stomp attack with a 50 OB next round* ("50LTs √").

13.4 CONVERTING AND CREATING CREATURES

Trained or usually intelligent animals may have higher offensive bonuses. and use different combinations of attacks than those presented on the Statistics Charts. These statistics are only meant to be a sample and the GM should feel free to use the provided tables for describing and designing his own animals and monsters.

A good rule of thumb for converting monsters is to:

- Determine the size (Tiny, Small, Medium, Large, or Huge) and type of attack.
- Determine the Maximum damage for each type of attack (usually the size).
- Determine an appropriate offensive bonus. If this cannot be easily set, approximate it by +10 per hit die that the creature normally has under your system.

The following charts can also be useful in handling *AL&CL* creatures during play and in converting other creature statistics into *AL&CL* statistics.

SIZE CHART

Size	DB Mod.*
Tiny	30
Small	20
Medium	0
Large	–10
Huge	–20

SPEED CHART

CODE		DB MODIFICATIONS (MS)* Base RATE	(MS)† Flee/ Evade	(AQ)‡ Charge/ Lunge	(AQ) Initiative Points
CR	Creeping	–20	0	0	10
VS	Very Slow	–10	0	0	20
SL	Slow	0	0	0	50
MD	Medium	10	–5	5	85
MF	Moderately Fast	20	–10	10	97
FA	Fast	30	–15	15	101
VF	Very Fast	40	–20	20	110
BF	Blindingly Fast	50	–20	25	120

* — These modifications have already been factored into the animal and monster stats given. They are included to facilitate designing your own animals and monsters.

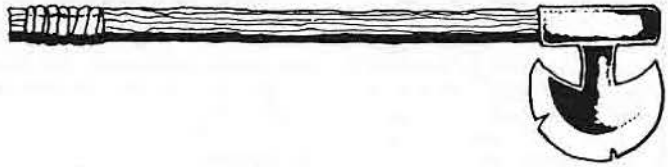
† — This DB Modifier applies if the animal is actively fleeing or evading pursuit. The animal must be moving.

‡ — This DB Modifier is only used when an animal attacks a target from the front without surprise. The animal's DB is only modified with respect to the target's attack. If this modifier is applied, the target gets the first attack.

†, ‡ — Have not been factored into the DBs of the sample animals and monsters, and thus must be applied as the situation calls for.

Larger/Smaller Than Normal Animals

The statistics given for animals apply in general to the size and nature of the animal found in our world. For creatures smaller than normal (e.g., a baby elephant), decrease the *Size*, *Hits*, and *Max* (on attacks), but leave the pattern of attack the same. Similarly, for larger than normal animals (e.g., giant crabs, huge birds, giant spiders, etc.) increase the *Size*, *Hits*, and *Max* (on attacks), but leave the pattern of attack the same. The OBs for various attacks should be decreased for smaller animals and increased for larger animals.



Attacks by Groups of Small Animals

Swarms or groups of tiny creatures (Bees, Ants, etc.) may be given a small attack on the appropriate table. Some of these "swarm" attacks are indicated on the charts (Bees, Birds, Crabs, Lizards, etc.).

ANIMAL STATISTICS CHART

Name	Size	Hits	AT (DB)	Speed MS/AQ	Level	Primary Attack	Secondary Attack	Tertiary Attack	Special
Alligator (Crocidile)	L	120	7(0)	MD/MD	2	60LBi100	—	—	DB = +20, OB = +20 if in water.
Baboon	M	50	3(10)	MD/FA	3	40MGr70	60MBi«	40MBi30	Usually in tribal groups.
Barracuda	M	40	1(40)	VF/VF	2	45MBi100	—	—	—
Bat	S	4	1(60)	VF/VF	1	20SBi100	—	—	—
Bear (Grappling)	L	170	8(10)	MF/MF	5	70LGr100	60LCl«	20MBi«	Attack mode is based on situation.
(Charging)						60LBa100	—	—	—
Bees	T	1	1(40)	MD/VF	1	-10Ti100	Swarm—20SSt	—	Poison does hit 1 hit/bee.
Bird (small)	T	5	1(70)	VF/FA	1	0Ti100	6 or more—0SCl	—	Sparrows, doves, etc.
(large)	S	8	1(50)	FA/FA	1	0SPi100	3 or more—20MCl		Gull, ravens, etc.
Boa Constrictor (15')	M	50	3(0)	SL/SL	2	60MGr100	75LGr √	—	—
Boar	M	120	4(30)	FA/MD	3	40LHo100	30MBa«	20MTs«	Unpredictable, ill-tempered.
Bull	L	150	4(10)	MF/MF	3	35MHo80	40LBa20	30LTs«	—
Cat (leopard, etc.)	M	100	3(40)	VF/VF	3	40MCl40	60MBa60	60MBi √	Good stalkers, and ambushers.
Cheetah	M	70	3(50)	BF/VF	3	45MCl80	65MBi«	45MBi20	Little endurance.
Condor	L	90	1(30)	VF/MF	4	50LCl100	45MPi √	—	—
Crab	T	8	2(10)	VS/MD	1	0Ti100	6 or more—35SPi	—	—
Deer (Stag, etc.)	M	70	3(40)	VF/FA	2	20MHo90	20MTs10	—	Males only.
Dolphin	M	80	1(40)	VF/FA	8	50MBa100	—	—	Intelligent.
Eagle	M	30	1(30)	FA/FA	3	45MCl100	35SPi√	—	—
Elephant (male)	L*	450	12(10)	FA/FA	7	90HHo70	80HBa30	75HTs«	Could grapple if trained.
(female)	L*	450	12(10)	FA/FA	7	80HBa100	75HTs«	—	Could grapple if trained.
Elk (male)	L	200	8(10)	FA/FA	3	100HHo100	90LBa«	60LTs«	Loner except during mating season.
Falcon	S	25	1(60)	VF/BF	2	30MCl100	20SPi √	—	—
Gorilla	L	120	3(0)	MD/FA	4	45LGr80	70MBi«	50MBi20	—
Hawk	S	25	1(60)	VF/VF	2	40MCl100	25SPi √	—	—
Horse (charging)	L	150	3(20)	FA/FA	3	50LBa100	35LTs«	—	Md-sized warhorse, bonuses vary
(rearing)						50MCr70	45LTs √	30MBi30	for heavier or lighter horses.
Housecat	S	10	1(40)	FA/FA	1	10Ti60	0Ti20	Both20	—
Hyenas (Jackals, etc.)	M	70	3(40)	VF/FA	2	45MBi100	—	—	Large packs, cunning.
Killer Whale	L*	600	8(20)	VF/VF	8	120HBi80	150HGr«	100HGr20	Intelligent, voracious.
Kraken (squid-like)	L*	200	8(0)	MF/VF	8	100HGr100	70HPi √	—	Pi attack due to beak.
Lion	L	150	4(20)	FA/MF	5	85LCl100	85LBi«	120LCl √	3rd attack as long as crits obtained.
Lizard (general class)	T	8	1(80)	BF/VF	1	0Ti100	6 or more—10SPi	—	—
(large)	S	16	1(50)	FA/MF	1	10SPi100	3 or more—40SPi	—	If poisonous, 1st attack is 50%.
Lobster	S	10	12(10)	VS/MD	1	20SPi100	—	—	—
Manta Ray	M	35	1(40)	VF/VF	3	30SBa100	—	—	—
Mongoose	S	35	3(70)	FA/BF	2	50SBi100	—	—	DB unusually large due to AQ.
Moose	L	120	4(20)	FA/MF	3	30LHo100	40LBa«	60LTs √	Males only.
Moray Eel	M	75	3(0)	SL/MF	2	100LBi100	—	—	Ambush attacks on sea floor.
Octopus (large)	M	40	1(30)	FA/FA	2	60MGr100	40SPi«	—	—
Owl	M	35	1(30)	FA/FA	1	40MCl100	40SPi √	—	Primarily nocturnal.
Pike	M	45	1(40)	VF/VF	2	30SBi100	—	—	—
Piranha	T	4	1(70)	VF/VF	1	25Ti100	6 or more—25SBi	—	+20 when water bloody.
Rats	S	5	1(30)	MD/MF	1	0SBi100	3 or more—30SBi	—	—
Rhinoceros	L	240	12(0)	MD/MF	7	130HHo100	110HBa«	110HTs √	Blind charge, poor eyesight.
Sabertooth Tiger	L	250	8(30)	VF/VF	5	110LBi70	70LCl20	Both10	—
Scorpion	T	2	1(40)	MD/VF	1	10SSt100	6 or more—50SSt	—	Very poisonous, 1-50 hits.
Shark	L	250	4(20)	FA/FA	5	100LBi100	—	—	+30 when water bloody.
Snake (non-constr.)	S	10	1(50)	FA/VF	1	25Ti100	6 or more —0SHo	—	—
(large, non-constr.)	M	20	1(30)	FA/VF	1	10SHo100	3 or more—25SHo	—	—
Spider (Ants, etc.)	T	1	1(10)	CR/FA	1	-50Ti100	Swarm—0Ti	—	Innocuous, possibly poisonous.
Squid (large)	S	20	1(50)	FA/FA	1	50SGr100	0SPi √	—	—
Tiger	L	150	4(30)	VF/VF	5	75LCl40	90LBa60	110LBi √	Rushes from short range.
Turtle (large)	M	80	12(30)	CR/SL	3	20LPi100	—	—	—
(large sea)	L	120	12(40)	FA/MD	3	40MPi100	—	—	If not in water, as above.
Weasel	S	35	1(50)	FA/VF	1	50MBi100	—	—	Vicious.
Whale (Sperm Whale)	L*	700	8(50)	MF/MF	8	60SGr50	75HBa50	—	'E' Gr crit means target is swallowed.
Wildcat (many types)	S	60	3(60)	VF/VF	3	30HCl30	20SBi30	Both40	Loners, ambushers.
Wolf	M	110	3(30)	FA/FA	3	65MBi100	—	—	Pack hunter, intelligent.
Wolverine	S	45	3(50)	FA/VF	2	50LBi40	45MCl10	Both50	Extremely vicious and bellicose.

Codes: Most of these statistics are standard AL&CL combat statistics: Hits, AT = Armor Type (Section 4.1), DB = Defensive Bonus (Section 4.4), level (for RRs, see *ChL* and *SL*).

Size: See Section 13.4. T = Tiny, S = Small, M = Medium, L = Large, H = Huge; L* = Any criticals against this creature are resolved using the Large Creatures rules (Section 6.4.3); H* = Any criticals against this creature are resolved using the Super-Large Creature rules (Section 6.4.3).

Speed: See Section 13.4. MS = Movement Speed, the rate at which the animal is capable of travelling; AQ = Attack Quickness (speed of animal's attack).

Attacks: See Section 13.3. The attacks are given in the following form: *OB Attack Size Attack Type Additional Information.*

OB: The standard Offensive Bonus for this attack.

Attack Size: Maximum result allowed on attack table (see Section 6.4): S = Small, M = Medium, L = Large, H = Huge, no code for Tiny attacks).

Attack Type: Type of attack: Ba = Bash/Ram/Butt/Knock Down/Slug; Bi = Bite; Cl = Claw/Talon; Cr = Crush/Fall; Gr = Grapple/Envelop/Swallow; Ho = Horn/Tusk; Pi = Pincher/Beak; St = Stinger; Ti = Tiny Animals; Ts = Trample/Stomp; Wp = Weapons.

Additional Information: See Section 13.3. # = the % chance of this attack being used; « = If the attack given on the left (i.e., the primary attack for a secondary attack or the secondary attack for a tertiary attack) has obtained a non-Tiny critical this round, then this attack occurs in the same round; √ = If the attack given on the left (i.e., the primary attack for a secondary attack or the secondary attack for a tertiary attack) has obtained a non-Tiny critical this round, then this attack occurs in the following round; **opt** = The creature may use this attack (usually a weapon) if it desires (usually determined by the GM).

* — Defensive Bonuses (DB) so marked are obtained from the normal process with an extra bonus for especially tough hides, quickness, stature, and general factors concerning the fearsomeness of the creature.

2X Damage: Target receives double the hits by the tables.

MONSTER STATISTICS CHART

Name	Size	Hits	AT (DB)	Speed MS/AQ	Level	Primary Attack	Secondary Attack	Tertiary Attack	Special
Ant (Giant)	S	25	17(30)	MD/MF	1	15SPi100	—	—	Assumes Ant is 1 to 2 feet long.
(Giant Warrior)	S	40	19(40)	MF/FA	2	35MPi100	—	—	Assumes Ant is 2 to 3 feet long.
Ape (Giant)	L	120	8(10)	MF/FA	5	55MCl100	70LGr«	60Wp √	Can use simple hand weapons.
Basilisk	L	110	12(10*)	MD/MD	6	60LHo100	—	—	Has special abilities.
Beetle (Giant)	M	50	16(10)	MF/FA	2	60LPi100	—	—	Assumes Beetle is 3 feet long.
Centaur	L	80	4(30)	VF/VF	5	50LBa100	40LTs«	50Wp opt	Intelligent Centaurs may use weapons.
Chimera	L	180	4(30*)	FA/FA	10	90LBi50	90LCl30	40MHo20	Has unusual abilities.
Cockatrice	S	30	3(50)	VF/MF	5	50MPi100	—	—	Has unusual abilities.
Crab (Giant)	M	60	16(20)	MF/MF	3	75LPi100	—	—	Assumes Crab is 4 feet wide.
Demon (Pale I)	M	35	1(20)	MF/FA	2	20MBa100	50MCr √	30Wp opt	Types as given in *SL*. Demons from
(Pale II)	M	60	3(30)	FA/FA	4	40LBa100	80LCr √	50Wp opt	other systems may be placed
(Pale III)	M	90	4(50*)	VF/FA	8	70LBa100	105LCr √	70Wp opt	into these classes.
(Pale IV)	M	120	4(60*)	BF/FA	13	100LBa100	130LCr √	90Wp opt	—
(Pale V)	L*	180	8(50*)	VF/FA	18	125LBa100	150HCr √	120Wp opt	2x damage with weapon.
(Pale VI)	L*	250	12(60*)	VF/FA	30	150HBa100	170HCr √	165Wp opt	2x damage with weapon.
Doppleganger	M	80	4(40)	VF/BF	8	70MCl70	40MBi30	60Wp opt	If in proper form, it can use weapons.
Dragon (typical adult)	H*	450	16(50*)	VF/FA	25	200HBi60	170HCl30	120HBa10	Diff. Dragons have unusual abilities.
Eagle (Giant)	L	150	3(40*)	VF/VF	8	80LCl100	60LPi √	—	Trained rider could also attack.
Efreet	M	110	1(70)	VF/VF	8	80LBa50	70LGr«	60Wp50	Ba criticals are Heat if *SL* is used.
Elemental (weak-AIR)	M	80	1(40)	VF/FA	10	40LBa100	40LGr √	—	Ba criticals are Impact if *SL* is used.
(weak-EARTH)	M	80	1(40)	VF/FA	10	70LBa100	50MGr √	—	—
(weak-FIRE)	M	80	1(40)	VF/FA	10	50LBa100	50MGr √	—	Ba criticals are Heat if *SL* is used.
(weak-WATER)	M	80	1(40)	VF/FA	10	60LBa100	60MGr √	—	Ba criticals are Impact if *SL* is used.
(powerful-AIR)	L*	120	1(30)	VF/FA	20	70HBa100	60LGr √	—	Ba criticals are Impact if *SL* is used.
(powerful-EARTH)	L*	120	1(30)	VF/FA	20	120HBa100	80LGr √	—	—
(powerful-FIRE)	L*	120	1(30)	VF/FA	20	90HBa100	70LGr √	—	Ba criticals are Heat if *SL* is used.
(powerful-WATER)	L*	120	1(30)	VF/FA	20	100HBa100	75LGr √	—	Ba criticals are Impact if *SL* is used.
Gargoyle	M	80	16(30*)	MF/FA	5	60LCl60	40MBi«	Both10	If intelligent, can use weapons.
Genie	M	90	1(40)	VF/VF	6	75MBa30	65MGr«	70Wp70	Has unusual abilities.
Giant (small)	L*	150	4(20)	FA/FA	6	35LBa100	50LCr √	60Wp opt	2x damage with weapon.
(medium)	L*	250	8(20*)	FA/MF	12	65HBa100	90HCr √	80Wp opt	3x damage with weapon.
(large)	H*	350	12(30*)	FA/MF	20	75HBa100	100HCr √	120Wp opt	4x damage with weapon.
Goblin	M	15	1(10)	MD/MF	1	20Ti100	25Wp opt	—	Wears armor, wp OB varies with lvl.
Golem (Flesh)	L	100	1(15*)	MD/MD	10	100MBa100	50LCr«	—	Usually have little intelligence.
(Clay)	L*	120	1(20*)	MD/MD	10	110LBa100	60LCr«	—	The sizes for the golems need
(Stone)	L*	170	16(20*)	MD/MD	10	130LBa100	70LCr«	—	not be L and H; the L* and H* are
(Iron)	H*	200	20(30*)	MD/MD	10	150HBa100	80LCr«	—	given to indicate the critical charts
(Mithril)	H*	250	20(50*)	MD/MD	10	200HBa100	100HCr«	—	used when Golems are attacked.
Gorgon	L	110	9(20*)	MF/VF	6	40MHo100	60LBa«	50LTs √	Has unusual abilities.
Griffin	L	130	7(30)	VF/VF	8	70LCl40	60LBi40	Both20	Has unusual abilities.
Harpy	M	50	2(10)	MD/MD	6	30MCl100	30Wp opt	—	Has unusual abilities.
Hippogriff	L	160	8(10)	MF/FA	9	90LCl35	75LPi30	Both35	Has unusual abilities.
Hobgoblin	M	25	1(10)	MD/FA	2	30Ti	35Wp opt	—	Wears armor, wp OB varies with lvl.
Hydra	L*	150	16(20*)	MD/FA	10	60MBi100	—	—	4-7 heads, each head gets an attack.
Lich	M	150	1(75*)	BF/BF	20	70Wp100	—	—	Has very unusual abilities, good luck.
Medusa	M	60	1(20)	MF/VF	5	30Wp100	—	—	Has unusual abilities.
Ogre (small)	M	90	1(20)	MF/FA	4	75MBa90	40MCl«	30Wp10	Wp capability rises with intelligence.
(large)	L*	140	1(10)	MF/FA	8	120LBa85	80LCl«	60Wp15	Wp capability rises with intelligence.
Orc (non-combatant)	M	15	1(10)	MD/MF	1	15Wp60	20Ti40	—	Women, children and non-fighters.
(fighter)	M	45	1(10)	MD/MF	3	35Wp85	25Ti15	—	Uses weapons and armor.
(leader)	M	75	1(10)	MD/MF	6	60Wp95	30Ti05	—	Leads squads of fighters.
(commander)	M	110	1(10)	MD/MF	10	90Wp99	35Ti01	—	Rules large clans or groups of Orcs.
Pegasus	L	75	3(30)	VF/FA	6	35MCr70	35MTs«	30MBi30	Has unusual abilities.
Roc (huge bird)	L	200	4(30*)	VF/FA	10	90HCl100	80LPi √	—	Trained rider could also attack.
Sphinx	H*	250	8(30*)	VF/VF	12	170HCl50	150HBi25	Both25	Extremely vicious physical fighter.
Titan	H*	250	8(20)	VF/VF	15	110HBa100	200HCr«	120Wp opt	4x damage with weapons, use at will.
Troll (classical, small)	L	110	11(20*)	MF/FA	5	100LBa70	80LCl30	40MBi«	Semi-intelligent.
(classical, large)	L*	170	11(20*)	MF/FA	10	160HBa70	110HCl30	65LBi«	Semi-intelligent.
(civilized, small)	L	100	11(20*)	MF/FA	5	100Wp opt	50MBa70	40MCl30	Uses wps and armor (unless disarmed).
(civilized, large)	L*	165	11(20*)	MF/FA	10	140Wp opt	80LBa70	60LCl30	Uses wps and armor (unless disarmed).
Undead (Class I)	M	25	1(10)	MD/FA	1	25SBa90	15Wp10	—	Classes as in *SL*: Undead from
(Class II)	M	50	1(20)	MF/FA	3	40MBa60	45Wp40	—	other systems may be placed into
(Class III)	M	100	1(30)	FA/FA	7	60MBa50	50Wp50	—	these classes. Sizes for Classes V
(Class IV)	M	135	1(40*)	VF/VF	10	95Wp60	70LBa40	—	and VI need not be L and H; L* and
(Class V)	L	165	1(40*)	VF/BF	15	110Wp70	90LBa30	—	H* are given to indicate crit charts
(Class VI)	H*	200	1(40*)	VF/BF	20	180Wp80	90HBa20	—	used when the Undead are attacked.
Unicorn	L	90	4(40)	BF/VF	10	100LHo100	30MBa«	50MTs«	Has unusual abilities.
Werewolf	M	130	4(50*)	VF/VF	7	65LBi35	50LCl30	Both35	Has unusual abilities.
Werebear	L	190	8(40*)	FA/VF	8	85LGr100	70LCl«	70LBi«	Has unusual abilities.
Wyvern	L	150	16(35*)	VF/FA	10	90LPi60	60LCl20	60LBa20	Has unusual abilities.

14.0 QUESTIONS AND ANSWERS

Over the years we have received and answered many questions regarding the interpretation of *AL&CL* rules. In this section, we present some of those questions and our answers to them; a GM may use this material for rules clarifications **or** as optional material.

The Battle Round Sequence

How do you handle combatants reacting to the activities of other combatants during a round?

This is how we handle activity: each phase, after the GM decides (for himself) what the NPCs plan to do, the PCs intentions are announced, and then activities are resolved by some sort of initiative determination. A combatant that moves or maneuvers less than his allowable total (even by 5 or 10%) may react to an opponents movement (e.g., change facing, move slightly, etc.); he must make a successful orientation roll to notice the activity that he wants to react to.

If a character holds back at least 50% of his activity, he may make a maneuver roll to see if he can strike an opponent that tries to run by. Alternatively, after all of the intentions of the combatants are revealed, you might allow some combatants to cancel their planned action and make a maneuver roll to see what percentage activity they get for some other activity (base the difficulty on the new activity that the combatant wants to attempt).

How do you handle Orientation in your games?

We use Orientation Rolls as a very, very general mechanism to assist the GM in determining how aware characters are of the general tactical situation. Generally, they fall into two main categories. First a character performs an unusual action that may leave him disoriented (e.g., longdooring during a combat, tumbling and spinning away from an attack, coming out of a stunned state, etc.); in this case, a low roll may restrict the characters follow-up actions while a high roll might mean that no restrictions apply. Second, something is happening on the battlefield that a dispassionate, uninvolved observer would probably notice, but which a character involved in the battle might not.

How can a character avoid being surprised?

To avoid being surprised, we allow a roll modified by the character's perception and the situation (e.g., noisy room with lots of distractions might give a -50, if the character is expecting the situation to occur it might be +50, etc.). The difficulty should be based upon the situation; e.g., if a character has made a successful stalking roll to sneak up on another character, it might be "very hard" to avoid surprise).

Defensive Capabilities

Can a character wear two suits of armor at once?

Normally, you can't wear more than one suit of armor; they aren't designed that way. If you do allow it, we would suggest you combine both armor penalties and then increase resulting penalties by at least 50%.

Wearing Armor Types 5-8 seem to be worse than wearing no armor. What's the story?

Section 4.1 of AL&CL says exactly this about Armor Types 5-8: "*... worn as weather protection by certain civilians and as combat protection by some militia and irregulars.*"

Thus ATs 5-8 are considered to be cold-weather clothing and cheap "armor" for militia type combatants. These ATs are easier to hit than AT 1, **but** they reduce the severity of the criticals taken as shown in the chart for starting critical #s below:

	A	B	C	D	E
AT1	85	89	94	102	122
AT5	70	84	100	113	132
AT6	75	87	103	118	135
AT7	80	89	103	120	137
AT8	85	98	113	129	140

So normal, non-adventuring characters with normal Quickness (e.g., no Quickness bonus) in ATs 5-8 will die less often and sustain less serious injuries than characters in AT 1. This is a very good reason for militia to wear this cheap, and easy to learn to use, armor.

As far as the Quickness penalty goes, remember the Qu Penalty only negates/cancels a Quickness bonus; it does not have any effect on a character with a zero or less Qu bonus. Thus normal characters with an average Quickness of 60-75 will not be affected at all by the armor Qu penalty. Quick characters should wear the lighter armors to take advantage of their Quickness bonus. (Why do you think Conan, Aragorn, the Grey Mouser, and other great fantasy heroes wore at most a chain shirt instead of plate armor? Because they were really quick and avoided the heavier armor.)

I want to make greaves more important in my game, what should I do?

For Greaves, you may wish to roll a percentage chance that a critical to a specific limb is nullified (perhaps 60% for metal greaves, 40% for rigid leather greaves and 25% for soft leather "greaves"). Movement penalties for RM greaves are already built into the Armor Penalties Table.

Can a character use his shield against one foe and parry another?

The shield DB is a passive bonus that may be applied to any one foe in the proper position (i.e., to the front or to the shield flank); this bonus is applied in addition to any DB due to other factors (i.e., Quickness, parrying, etc.). A character may parry one foe with his weapon and apply the shield DB to another foe or he can parry the same foe that he uses his shield DB against.

Can martial artists parry weapon attacks?

Yes. Parrying is a representation of the emphasis that the character puts on defensive versus offense in a given round. So when martial artist parries a weapon with part of his OB he actually dodges more that round or blocks the arm that wields the weapon.

If a combatant uses 100% of his OB to parry, does he still have to make an attack?

If a player uses all of his OB to parry, he must still make an attack at +0 OB; he has the chance of fumbling or getting in a lucky swing.

Why can't you have a skill bonus for a shield?

You may allow characters to develop "shield skill", but we do not suggest you do so. Shield skill allows a character to in effect double his attack/parry bonus and thus unbalances things in the system. For example, if you allow the development of "shield skill", it would be stupid to use a 2-Handed weapon or a pole arm since you would only have half the potential attack + parry total bonus of a 1-Handed weapon/shield combination.

Offensive Capabilities

Can an exceptionally strong character use a "2-Handed" weapon in one hand?

We do not normally allow 2-Handed weapons to be used in one hand (except for bastard swords, jo's, and nunchaku). But if a character with enormous strength wanted to do so, you might allow him to develop separate skill with a 2-Handed weapon used in one hand **and** then apply a special penalty of between -20 and -50 depending upon the weapon.

Why don't weapons with a magic bonus deliver more damage than normal weapons when they achieve maximum results?

It is assumed that a weapon with a "bonus" (e.g., a Mithril quarterstaff) is used the same way, balanced the same way, and delivers the same maximum damage as any weapon of that type — because otherwise normal skill ranks with that weapon would not be usable and skill would have to be developed separately for the bonus weapon. This means that the bonus weapon delivers damage more frequently and is easier to strike and parry with but it does not deliver more damage when optimum results are obtained. The exception to this is that criticals with Mithril and magic weapons against Large and Super-Large creatures are more deadly.

One of my characters wants to throw sand in an opponent's face during combat, help!?

The character could develop an OB with "thrown sand" (as a thrown weapon). He would use the Grapple Attack Table (Small attack maximum) with double normal shield DB and no weapon DB; and the target may parry normally if he is aware the attack is coming. A non-zero result would deliver no normal damage but it would force the target to make a Resistance Roll against a 1st level attack (see *SL* or *ChL&CaL*), modified by -1 per hit delivered and -10 for each severity of any critical (i.e., -10 for an A, -20 for a B, etc.).

If a foe is down, surely he's prone to attack? Why can't you apply both the down bonus and the prone bonus?

The prone bonus is normally used for totally inactive foes; downed foes are still active and may be rolling around on the ground. If you think the penalty to a downed and prone foe is not high enough, use both bonuses.

Combat Resolution

How do you handle attacks against a sleeping or unconscious foe that you are standing over?

We just require a simple maneuver to kill an unconscious or sleeping foe. This is called having an overwhelming advantage.

How do you handle damage to structures?

We don't have a fixed method for handling damage to structures, we just jury rig something when we need it. Currently, we assign doors a AT of 20 (stone, metal, or metal reinforced) or AT 12 (wood) and a certain number of hits (50-1000) and let people "attack" them normally.

How would you determine if an arrow fired at a foe with a shield misses or sticks in the shield?

If the arrow would have hit the target if he had not had a shield, you may assume that the arrow either stuck in the shield or glanced off.

Do Large and Super-Large creatures still take the hits from the normal attack tables?

Yes

I feel the sling attack table delivers too much damage; what should I do?

For your own game, you can always decrease the hits given out by various weapons (e.g., half the hits, quarter the hits, etc.).

Maneuvering

Why don't characters without armor get a big maneuver bonus?

A character in AT 1 has a +0 armor penalty; a character in AT 18 has always has at least a -20 armor penalty for all of his maneuvers; this is equivalent to the difference between a very agile character with a 98-99 Agility (+20 bonus) and an average character with a 40-59 Agility (+0 bonus), i.e., a really big difference. In addition, the AT 1 gets his entire Qu bonus for his DB, while the AT 18 character gets a -20 Qu penalty.

Martial Artists

We find martial artists to be too powerful in combat; what can we do?

From our experiences with ***RM*** tactical situations, a martial artist's (MA) advantages due to Adrenal Defense are balanced by: his higher development point costs; by his inability to benefit from armor, shields, magic armor, magic shields and magic weapons; and by his weaknesses in missile fire situations and against animal and certain spell attacks.

Ignoring stat bonuses and assuming two skill ranks per level in combat skills), a 10th level MA will have an OB&DB total of: **164** = 72 for Adrenal Defense + 72 for skill bonus OB + 20 for level bonus.

Ignoring stat bonuses and assuming +10 or +15 equipment and assuming two skill ranks per level in combat skills, a 10th level Fighter will have an OB&DB total of: **156** (up to 181) = 35 (up to 50) for shield + 10 (up to 15) for armor + 72 for skill bonus OB + 30 for level bonus + 10 (up to 15) for weapon.

To develop the above capabilities will cost the Fighter 13 Development points per level for one melee weapon and one missile weapon, it will cost him just 1 or 2 DPs per level for each addition weapon he wishes to develop skill for at a rate of one skill rank per level.

To develop the above capabilities will cost the Martial Artist 26 Development points per level for just one area of martial arts and no other weapons. It will cost 46 DPs per level for both areas of martial arts and one missile weapon at one skill rank per level.

So martial artists may be good in combat, but to do so they will give up flexibility and the capability to do anything else.

In a missile combat the MA's abilities really decrease: his ADef is halved to 36 against missiles, and cannot be used at all if the MA is holding a bow (i.e., ADef cannot be used if a "non-weapon kata weapon" is held in hands). In addition, the MA cannot normally use part of his OB to parry missile attacks (i.e., he has no shield). Meanwhile, the fighter gets his full shield and armor bonus and can parry if he holds a shield.

Many animal and spell attacks will tear up a MA in no armor, while a Fighter in chain or plate does better.

If your game does not have weapons, armor and shield with bonuses, martial artists will be very powerful. If you give Martial Artists lots of stuff like "bracers or defense" and allow them to "parry" missile attacks with their OBs, they can also get out of hand. But as written the disadvantages of martial artists balance out their advantages in most of the campaigns we have been associated with.

Creature Capabilities

Can animals and monsters parry?

Intelligent creatures can parry normally if they have something to parry with (e.g., horns, a shell, armor, etc.). A GM may wish to allow other animals to "parry" by dodging in a manner similar to Adrenal Defense; in this case, only half of the parry OB is added to the animal's DB (e.g., if the animal uses 40 of its OB for parry, its DB would only be increased by 20).

How do human stats compare with creature stats?

For the "strength" Initiative Determination modifier when animals are fought, use the Size factor for who has the greater strength (treat normal humans as "M" size); assume a tie for the same size unless some other factor makes it clear who is stronger.

Human "Speeds" would normally range from Creeping to Fast in animal terms.

Why do creatures take so many hits?

Our assumption for animals having a large number of hits is that: hits only represent pain, shock, and minor damage that leads to unconsciousness; they do not represent critical damage. Men (without training) tend to faint, pass-out, or go into shock when encountering too much pain, while beasts tend to react to pain instinctively by avoiding it or by attacking the source of the pain. Seldom do aggressive animals "pass out". Animals have other major disadvantages: they tend to act in a predictable manner and they can not parry attacks.

I feel your creature statistics are too powerful; my groups seem to have too much trouble with normal animals. What should I do?

Your problem with stats for ***Rolemaster*** creatures is caused by play balance factors inherent in the flexibility and diversity of the system. A typical player character fighter can start with an OB of around 33-48: +10-25 (for stats, a character gets free 90's in his prime stats) +20 (for 4 skill ranks) + 3 (for his level). With the optional hobby rules (4-5 skill ranks) and background options this can be raised to an OB of 53-100. He can start with armor and a shield that give him an AT of 5 to 20 and a DB of 25-50 (with a shield, depending on stats).

So you see that when starting character OBs can range from -25 to 100 **and** DBs will vary enormously, play balancing stats for creatures becomes a difficult chore. Creatures cannot parry, they are extremely vulnerable to missile fire, and they will often flee when faced with determined opposition. In a normal adventuring situation, characters are in a group that has a cohesiveness that is not available to non-social creatures. Such a group also has the advantage of missile fire, organization, and planning that cannot be matched by creatures.

The main problem is that while we feel the stats given in *AL&CL* and *C&T* are balanced and appropriate for adventuring groups, they are not always consistent with "realistic" situations like ones we might encounter in our world. The *C&T* stats should be taken as guidelines, for example, the # Enc. stat should only be used in a totally random environment. If you feel the animal stats are too large (and I agree that they are probably too large for a "realistic" environment), just decrease them across the board by say 25-50% and you will have a low-powered environment for your groups.

You are correct about animals being dangerous, I was once in a group of five 1st level characters that got run around for over 20 rounds by one angry boar (we barely wounded it and it finally just wandered off, we never killed it). This, however, is realistic. Medieval groups would hunt boar in groups of 4-20 men with dogs, horses, and special equipment (e.g., boar spears); our 5 man group consisted of a Warrior Monk, a Ranger with a sword, a Fighter with a regular spear, an Astrologer, and a Healer — needless to say we didn't have much of a chance.



Miscellaneous

How were the AL&CL attack tables created?

The ***RM*** attack tables were computer generated, but the program was "data-driven". That is, each column (i.e., each AT for each weapon/attack) had a set of data (about 15 pieces of information) associated with it that reflected how effective that attack/weapon was against that particular AT. So you can see that each attack table requires 300 pieces of data to generate. To further complicate this process, some of the attack tables were initially generated in this manner and then modified due to play-testing and input from various sources.

Why does the fantasy weapon, Irgak, do two criticals?

First, the Irgaak does 2 crits because it is magical, and we assume it lands two blows in the same round.

My characters are bleeding to death; help!?

Hits per round can normally be stopped with a compress and bandage if the patient does not move at more than a walking pace for the next 8 hours (up to 1, 2, or 3 hits per round depending upon a maneuver roll). A tourniquet on a limb can stop 4 to 10 hits per round on a limb wound, but until the wound heals the tourniquet must be loosened once every 24 rounds and 3 hits per round taken for 5 rounds.

Some of my players cheat; what can I do?

I'm sorry, but you have to handle cheating on your own. If you have real problems, create a special table in which a character's roll is converted to the roll that is actually used (e.g., a roll of 64 might be converted by the table to a 31, a 58 to a 24, a 99 to a 43, etc.).

8.3.1 DAGGER ATTACK TABLE

Weapon Type:
One–Handed Slashing

Length:
.75-1.5 feet

Weight:
.5-1.5 pounds

Fumble Range:
01–01 UM

Range (OB Mod):
1'-10' (-10)
11'-25' (-20)
26'-50' (-30)



	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
150	3CP	4CP	4EP	6EP	7EP	7EP	10EP	10EP	6EP	8EP	12EP	12EP	8EP	8EP	13EP	16EP	10EP	13EP	16EP	18ES	150
149	3BP	4CP	4DP	6EP	7DP	7DP	10DP	10EP	6EP	8EP	12EP	12EP	8EP	8EP	13EP	16EP	10EP	13EP	16EP	18EP	149
148	3AP	4BP	4CP	6DP	7DP	7DP	10DP	10EP	6EP	8EP	12EP	12EP	8EP	8EP	13EP	16EP	10EP	13EP	16EP	18ES	148
147	3AP	4BP	4CP	6DP	7CP	7CP	10DP	10DP	6DP	8EP	12EP	12EP	8EP	8EP	13EP	16EP	10EP	13EP	16EP	18EP	147
146	3AP	4BP	4CP	6DP	7CP	7CP	10CP	10DP	6DP	8DP	12DP	12EP	8EP	8EP	13EP	16EP	10EP	13EP	16EP	18ES	146
145	3AK	4AP	4CP	6CP	7CP	7CP	10CP	10DP	6DP	8DP	12DP	12EP	8EP	8EP	13EP	16EP	10EP	13EP	16EP	18EP	145
144	3	4AP	4BP	6CP	7CP	7CP	10CP	10DP	6CP	8DP	12DP	11EP	8EP	8EP	13EP	15EP	10EP	13EP	16EP	17ES	144
143	3	4AP	4BP	6CP	7BP	7CP	10CP	10DP	6CP	8DP	11DP	11DP	8DP	8EP	13EP	15EP	10EP	12EP	16EP	17EP	143
142	3	4AP	4BP	6CP	7BP	7CP	10CP	10CP	6CP	8CP	11DP	11DP	8DP	8DP	12EP	15ES	9DP	12EP	15EP	17ES	142
141	3	4AP	4BP	6CP	7BP	7BP	9CP	9CP	6CP	7CP	11DP	11DP	8DP	8DP	12DP	15DP	9DP	12EP	15EP	17EP	141
140	3	4AK	4BP	6CP	7BP	7BP	9CP	9CP	6CP	7CP	11CP	11DP	8DP	8DP	12DP	15ES	9DP	12EP	15EP	17ES	140
139	3	4	4AP	6BP	7BP	7BP	9CP	9CP	6CP	7CP	11CP	11DP	8DP	8DP	12DP	14DP	9DP	12DP	15EP	16EP	139
138	3	4	4AS	6BS	7AP	7BP	9BP	9CP	6CP	7CP	11CP	10DP	8DP	8DP	12DP	14DS	9DP	12DP	15EP	16ES	138
137	3	4	4AP	6BP	7AP	6BP	9BP	9CP	6CP	7CP	10CP	10DP	8DP	8DP	12DP	14DP	9DP	12DP	15ES	16EP	137
136	3	4	4AS	6BS	6AP	6BP	9BP	9CP	5CP	7CP	10CP	10DP	8CP	8DP	12DP	14DS	9DP	11DP	15EP	16ES	136
135	3	4	4AP	5BP	6AP	6BP	9BP	9CP	5BP	7CP	10CP	10CP	8CP	7DP	11DP	14DP	8DP	11DP	14ES	16EP	135
134	3	4	4AS	5BS	6AP	6AP	9BP	9CS	5BP	7CP	10CP	10CP	7CP	7DP	11DP	14DS	8CP	11DP	14EP	15DS	134
133	3	4	4AP	5BP	6AP	6AP	9BP	8BP	5BP	7CP	10CP	10CP	7CP	7DP	11DP	13DP	8CP	11DP	14ES	15DP	133
132	3	4	4AS	5AS	6AS	6AP	8BS	8BS	5BP	6BP	10CP	9CP	7CP	7CP	11DP	13DS	8CP	11DB	14DP	15DS	132
131	3	4	4AP	5AP	6AP	6AP	8AP	8BP	5BP	6BP	9CP	9CP	7CP	7CP	11CS	13DP	8CP	11DP	14DS	15DP	131
130	3	4	4AK	5AS	6AK	6AP	8AS	8BS	5BP	6BP	9CP	9CP	7CP	7CP	11CP	13DS	8CP	11CS	14DP	15DS	130
129	3	4	4	5AP	6	6AP	8AP	8BP	5BP	6BP	9CP	9CP	7CP	7CP	11CS	13DP	8CP	10CP	14DS	14DP	129
128	3	4	4	5AS	6	6AP	8AS	8BS	5BP	6BP	9BP	9CP	7CP	7CP	11CP	12DS	7CP	10CS	13DP	14DS	128
127	3	4	3	5AP	6	6AS	8AP	8BP	5BP	6BP	9BP	9CS	7CP	7CP	10CS	12CP	7CP	10CP	13DS	14DP	127
126	3	4	3	5AS	6	6AP	8AS	8BS	5AP	6BP	9BP	8CP	7CP	7CS	10CP	12CS	7CP	10CS	13DP	14DS	126
125	3	4	3	5AP	6	6AK	8AP	7BP	5AP	6BP	9BP	8CS	7CP	7CP	10CS	12CP	7CP	10CP	13DS	14DP	125
124	3	3	3	5AS	6	5	7AS	7BS	5AP	6BP	8BP	8CP	7CP	7CS	10CP	12CS	7BP	10CS	13DP	13CS	124
123	3	3	3	5AP	6	5	7AP	7AP	4AP	5BP	8BS	8CS	7CP	7CP	10CS	12CP	7BS	10CP	13DS	13CP	123
122	3	3	3	5AS	5	5	7AS	7AS	4AP	5BP	8BP	8CP	7BS	7CS	10CP	11CS	7BP	9CS	13DP	13CS	122
121	3	3	3	4AP	5	5	7AP	7AP	4AP	5AP	8BS	8BS	7BP	6CP	10CS	11CP	7BS	9CP	12DS	13CP	121
120	3	3	3	4AK	5	5	7AK	7AS	4AP	5AP	8BP	7BP	7BS	6CS	9CP	11CS	6BP	9BS	12CP	13CS	120
119	3	3	3	4	5	5	7	7AP	4AP	5AP	8BS	7BS	6BP	6CP	9CS	11CP	6BS	9BP	12CS	12CP	119
118	3	3	3	4	5	5	7	7AS	4AP	5AS	7BP	7BP	6BS	6CS	9CP	11CS	6BP	9BS	12CP	12CS	118
117	3	3	3	4	5	5	7	6AP	4AS	5AP	7AS	7BS	6BP	6BP	9BS	10CP	6BS	9BP	12CS	12CP	117
116	3	3	3	4	5	5	7	6AS	4AP	5AS	7AP	7BP	6BS	6BS	9BP	10CS	6AP	8BS	12CP	12CS	116
115	3	3	3	4	5	5	6	6AP	4AK	5AP	7AS	7BS	6BP	6BP	9BS	10CP	6AS	8BP	12CS	12CP	115
114	3	3	3	4	5	5	6	6AS	4	4AS	7AP	6BP	6BS	6BS	9BP	10BS	6AP	8BS	11CP	11BS	114
113	2	3	3	4	5	5	6	6AP	4	4AP	7AS	6BS	6BP	6BP	8BS	10BP	5AS	8BP	11CS	11BP	113
112	2	3	3	4	5	5	6	6AS	4	4AS	6AP	6BP	6BS	6BS	8BP	9BS	5AP	8BS	11CP	11BS	112
111	2	3	3	4	5	4	6	6AP	4	4AP	6AS	6BS	6BP	6BP	8BS	9BP	5AS	8AP	11CS	11BP	111
110	2	3	3	4	5	4	6	6AK	4	4AK	6AP	6BP	6BS	6BS	8BP	9BS	5AP	8AS	11CP	11BS	110
109	2	3	3	4	5	4	6	5	3	4	6AS	6BS	6BP	6BP	8BS	9BP	5AS	7AP	11CS	10BP	109
108	2	3	3	4	4	4	6	5	3	4	6AP	5AP	6AS	6BS	8BP	9BS	5AP	7AS	11CP	10BS	108
107	2	3	3	3	4	4	5	5	3	4	6AS	5AS	6AP	5BP	8BS	9BP	5AS	7AP	10BS	10BP	107
106	2	3	3	3	4	4	5	5	3	4	6AP	5AP	6AS	5BS	8BP	8BS	4AP	7AS	10BP	10BS	106
105	2	3	3	3	4	4	5	5	3	3	5AK	5AS	6AP	5BP	7BS	8BP	4AK	7AP	10BS	10AP	105
104	2	3	2	3	4	4	5	5	3	3	5	5AP	5AS	5BS	7BP	8BS	4	7AS	10BP	9AS	104
103	2	3	2	3	4	4	5	5	3	3	5	5AS	5AP	5AP	7BS	8BP	4	7AP	10BS	9AP	103
102	2	3	2	3	4	4	5	5	3	3	5	4AP	5AS	5AS	7BP	8BS	4	6AS	10BP	9AS	102
101	2	3	2	3	4	4	5	4	3	3	5	4AS	5AP	5AP	7AS	7BP	4	6AP	10BS	9AP	101
100	2	3	2	3	4	4	5	4	3	3	5	4AP	5AS	5AS	7AP	7BS	4	6AK	9BP	9AS	100
99	2	2	2	3	4	4	5	4	3	3	4	4AS	5AP	5AP	7AS	7BP	4	6	9BS	8AP	99
98	2	2	2	3	4	3	4	4	3	3	4	4AP	5AS	5AS	6AP	7BS	3	6	9BP	8AS	98
97	2	2	2	3	4	3	4	4	3	3	4	4AS	5AP	5AP	6AS	7AP	3	6	9BS	8AP	97
96	2	2	2	3	4	3	4	4	2	2	4	3AP	5AK	5AS	6AP	7AS	3	6	9AP	8AK	96
95	2	2	2	3	3	3	4	4	2	2	4	3AK	5AS	5AP	6AS	6AP	3	5	9AS	8AS	95
94	2	2	2	3	3	3	4	4	2	2	4	3	5	5AS	6AP	6AS	3	5	9AP	7	94
93	2	2	2	3	3	3	4	3	2	2	3	3	5	5AP	6AS	6AP	3	5	8AS	7	93
92	2	2	2	2	3	3	4	3	2	2	3	3	5	4AS	6AP	6AS	3	5	8AP	7	92
91	2	2	2	2	3	3	4	3	2	2	3	3	5	4AP	5AS	6AP	2	5	8AS	7	91
90	2	2	2	2	3	3	4	3	2	2	3	2	5	4AK	5AP	5AS	2	5	8AP	7	90
89	2	2	2	2	3	3	3	3	2	2	3	2	4	4	5AS	5AP	2	0	8AS	0	89
88	2	2	2	2	3	3	3	3	2	2	3	2	4	4	5AP	5AS	2	0	8AP	0	88
87	2	2	2	2	3	3	3	3	2	1	3	2	4	4	5AS	5AP	2	0	8AS	0	87
86	2	2	2	2	3	3	3	3	2	1	2	2	4	4	5AP	5AS	2	0	7AP	0	86
85	2	2	2	2	3	2	3	2	2	1	2	2	4	4	5AK	5AP	2	0	7AK	0	85
84	2	2	2	2	3	2	3	2	2	1	2	1	4	4	5	4AS	0	0	7	0	84
83	2	2	2	2	3	2	3	2	2	1	2	1	4	4	4	4AP	0	0	7	0	83
82	2	2	2	2	3	2	3	2	1	1	2	1	4	4	4	4AS	0	0	7	0	82
81	2	2	1	2	2	2	2	2	1	1	2	1	4	4	4	4AP	0	0	7	0	81
80	2	2	1	2	2	2	2	2	1	1	1	1	4	4	4	4AK	0	0	7	0	80
79	2	2	1	2	2	2	2	2	1	0	1	0	4	4	4	3	0	0	0	0	79
78	2	2	1	1	2	2	2	2	1	0	1	0	4	3	4	3	0	0	0	0	78
77	2	2	1	1	2	2	2	1	1	0	1	0	4	3	4	3	0	0	0	0	77
76	1	2	1	1	2	2	2	1	1	0	1	0	4	3	3	3	0	0	0	0	76
75	1	2	1	1	2	2	2	1	1	0	1	0	4	3	3	3	0	0	0	0	75
74	1	1	1	1	2	2	2	1	1	0	0	0	3	3	3	0	0	0	0	0	74
73	1	1	1	1	2	2	2	1	1	0	0	0	3	3	3	0	0	0	0	0	73
72	1	1	1	1	2	1	1	1	1	0	0	0	3	3	3	0	0	0	0	0	72
71	1	1	1	1	2	1	1	1	1	0	0	0	3	3	3	0	0	0	0	0	71
70	1	1	1	1	2	1	1	1	1	0	0	0	3	3	3	0	0	0	0	0	70
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68	1	1	1	1	2	1	1	0	0	0	0	0	3	3	0	0	0	0	0	0	68
67	1	1	1	1	1	1	1	0	0	0	0	0	3	3	0	0	0	0	0	0	67
66	1	1	1	1	1	1	1	0	0	0	0	0	3	3	0	0	0	0	0	0	66
65	1	1	1	1	1	1	1	0	0	0	0	0	3	3	0	0	0	0	0	0	65
64	1	1	1	0	1	1	0	0	0	0	0	0	3	0	0	0	0	0	0	0	64
63	1	1	1	0	1	1	0	0	0	0	0	0	3	0	0	0	0	0	0	0	63
62	1	1	1	0	1	1	0	0	0	0	0	0	3	0	0	0	0	0	0	0	62
61	1	1	1	0	1	1	0	0	0	0	0	0	3	0	0	0	0	0	0	0	61
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57	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57
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50	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
49	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
48	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
47	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
46	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
45	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
44	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
43	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
40-42	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40-42
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	

	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
150	14EK	16EK	18EK	20EK	21EK	21EK	24EK	24EK	22EK	24EK	28EK	28EK	24ES	24ES	29ES	32ES	26ES	29ES	32ES	34ES	150
149	14EK	16EK	18EK	20EK	21EK	21EK	24EK	24EK	22ES	24ES	28ES	28ES	24ES	24ES	29ES	32ES	26ES	29ES	32ES	34ES	149
148	14EK	16EK	18EK	20EK	21EK	21EK	24EK	24EK	22EK	24EK	28EK	28EK	24ES	24ES	29ES	32ES	26ES	29ES	32ES	34ES	148
147	14EK	16EK	18EK	20EK	21EK	21EK	24EK	24EK	22ES	24ES	28ES	27ES	24ES	24ES	29ES	31ES	25ES	28ES	32ES	33ES	147
146	14DK	16EK	18EK	20EK	21EK	21EK	23EK	23EK	22EK	23EK	27EK	27EK	24ES	24ES	28ES	31ES	25ES	28ES	31ES	33ES	146
145	14DK	16DK	18EK	19EK	21EK	20EK	23EK	23EK	21ES	23ES	27ES	27ES	23ES	23ES	28ES	31ES	25ES	28ES	31ES	32ES	145
144	14DK	16DK	17DK	19EK	20EK	20EK	23EK	23EK	21ES	23EK	27EK	26EK	23ES	23ES	28ES	30ES	24ES	27ES	31ES	32ES	144
143	14DK	15DK	17DK	19EK	20EK	20EK	23EK	23EK	21ES	23ES	26ES	26ES	23ES	23ES	27ES	30ES	24ES	27ES	30ES	32ES	143
142	14CK	15DK	17DK	19EK	20DK	20DK	22DK	22EK	21DK	22EK	26EK	26EK	23ES	23ES	27ES	30ES	24ES	27ES	30ES	31ES	142
141	13CK	15DK	17DK	19EK	20DK	20DK	22DK	22EK	20DS	22ES	26ES	25ES	23ES	22ES	27ES	29ES	23ES	26ES	30ES	31ES	141
140	13CK	15CK	17DK	18DK	20DS	19DK	22DK	22EK	20DK	22EK	25EK	25EK	22ES	22ES	27ES	29ES	23ES	26ES	29ES	30ES	140
139	13CK	15CK	17DK	18DK	19DK	19DS	22DK	22EK	20DS	21DS	25DS	25ES	22DS	22ES	26ES	29ES	23ES	26ES	29ES	30ES	139
138	13CK	15CK	16DK	18DK	19DS	19DK	21DS	21DK	20DK	21DK	25DK	24EK	22DS	22ES	26ES	28ES	22ES	25ES	29ES	30ES	138
137	13CK	15CK	16CK	18DK	19DK	19DS	21DK	21DK	19DS	21DS	24DS	24ES	22DS	22ES	26ES	28ES	22ES	25ES	28ES	29ES	137
136	13BK	14CK	16CK	18DK	19DS	19DK	21DS	21DS	19DK	21DK	24DK	24EK	21DS	21DS	25ES	28ES	22ES	24ES	28ES	29ES	136
135	13BS	14CS	16CK	15DK	19DK	18DS	21DK	21DK	19DS	20DS	24DS	23DS	21DS	21DS	25ES	27ES	21ES	24ES	28ES	28ES	135
134	13BK	14CK	16CK	17DK	18DS	18DK	20DS	20DS	19DK	20DK	23DK	23DK	21DS	21DS	25DS	27ES	21ES	24ES	27ES	28ES	134
133	13BS	14BS	15CK	17DK	18DK	18DS	20DK	20DK	19CS	20DS	23DS	23DS	21DS	21DS	24DS	26ES	21DS	23ES	27ES	28ES	133
132	12BK	14BK	15CK	17DK	18CS	18DK	20DS	20DS	18CK	19DK	23DK	22DK	21DS	20DS	24DS	26ES	20DS	23ES	27ES	27ES	132
131	12AS	14BS	15CS	17DK	18CK	18CS	20CK	19DK	18CS	19DS	23DS	22DS	20DS	20DS	24DS	26DS	20DS	23ES	26ES	27ES	131
130	12AK	14BK	15CK	16DK	18CS	17CK	19CS	19DS	18CK	19DK	22DK	22DK	20DS	20DS	24DS	25DS	20DS	22DS	26ES	26ES	130
129	12AS	13BS	15CS	16DK	17CK	17CS	19CK	19DK	18CS	19DS	22DS	21DS	20DS	20DS	23DS	25DS	19DS	22DS	26ES	26ES	129
128	12AK	13BK	15BK	16CK	17CS	17CK	19CS	19DS	17CK	18DK	22DK	21DK	20CS	19DS	23DS	25DS	19DS	22DS	25ES	26ES	128
127	12AS	13BS	14BS	16CS	17CK	17CS	19CK	18DK	17CS	18CS	21DS	21DS	20CS	19DS	23DS	24DS	19DS	21DS	25ES	25ES	127
126	12AK	13AK	14BK	15CK	17CS	17CK	18CS	18DS	17CK	18CK	21DK	20DK	19CS	19DS	22DS	24DS	18DS	21DS	25ES	25ES	126
125	12AS	13AS	14BS	15CS	17CK	16CS	18CK	18DK	17CS	17CS	21DS	20DS	19CS	19DS	22DS	24DS	18DS	21DS	24ES	24ES	125
124	11AK	13AK	14BK	15CK	16CS	16CK	18CS	18DS	16CK	17CK	20CK	20DK	19CS	19DS	22DS	23DS	18DS	20DS	24ES	24ES	124
123	11AS	13AS	14BS	15CS	16BK	16CS	18CK	17CK	16CS	17CS	20CS	19DS	19CS	18DS	21DS	23DS	17DS	20DS	24ES	24DS	123
122	11AK	12AK	14BK	15CK	16BS	16CK	17CS	17CS	16CK	17CK	20CK	19DK	18CS	18DS	21DS	23DS	17DS	19DS	23ES	23DS	122
121	11AS	12AS	13BS	14CS	16BK	15BS	17CK	17CK	16CS	16CS	19CS	19DS	18CS	18DS	21DS	22DS	16DS	19DS	23DS	23DS	121
120	11	12AK	13BK	14CK	16BS	15BK	17CS	17CS	16CK	16CK	19CK	18DS	18CS	18DS	21DS	22DS	16DS	19DS	23DS	22DS	120
119	11	12AS	13AS	14CS	15BK	15BS	17CK	16CK	15CS	16CS	19CS	18DS	18CS	17CS	20DS	22DS	16CS	18DS	22DS	22DS	119
118	11	12AK	13AK	14BK	15BS	15BK	16CS	16CS	15BK	15CK	18CK	18DK	18CS	17CS	20DS	21DS	16CS	18DS	22DS	22DS	118
117	11	12AS	13AS	14BS	15BK	15BS	16BK	16CK	15BS	15CS	18CS	17CS	17CK	17CS	20CS	21DS	15CS	18DS	22DS	21DS	117
116	11	12AK	12AK	13BK	15AS	14BK	16BS	16CS	15BK	15CK	18CK	17CK	17CS	17CS	19CS	20DS	15CS	17DS	21DS	21DS	116
115	10	11	12AS	13BS	15AK	14BS	16BK	15CK	14BS	15CS	18CS	17CS	17CK	17CS	19CS	20DS	15CS	17DS	21DS	20DS	115
114	10	11	12AK	13BK	14AS	14BK	15BS	15CS	14BK	14CK	17CK	16CK	17CS	16CK	19CS	20DS	14CS	17CS	21DS	20DS	114
113	10	11	12AS	13BS	14AK	14BS	15BK	15CK	14BS	14CS	17CS	16CS	16CK	16CS	18CS	19DS	14CS	16CS	20DS	20DS	113
112	10	11	12AK	13BK	14AS	14AK	15BS	14CS	14BK	14BK	17CK	16CK	16BS	16CK	18CK	19DS	14CS	16CS	20DS	19DS	112
111	10	11	12AS	12BS	14AK	13AS	15BK	14CK	13BS	13BS	16CS	15CS	16BK	16CS	18CS	19CS	13CK	16CS	20DS	19DS	111
110	10	11	11AK	12BK	14AS	13AK	14BS	14CS	13BK	13BK	16CK	15CK	16BS	15CK	18CK	18CK	13CS	15CS	20DS	18DS	110
109	10	11	11AS	12AS	13AK	13AS	14BK	14BK	13BS	13BS	16CS	15CS	16BK	15CS	17CS	18CS	13CK	15CS	19DS	18DS	109
108	10	10	11AK	12AK	13AS	13AK	14AS	13BS	13BK	13BK	15CK	14CK	15BS	15CK	17CK	18CK	12CS	14CK	19DS	18DS	108
107	10	10	11AS	12AS	13AK	13AS	14AK	13BK	13BS	12BS	15CS	14CS	15BK	15CS	17CS	17CS	12BK	14CS	19DS	17DS	107
106	9	10	11AK	11AK	13AS	12AK	13AS	13BS	12BK	12BK	15BK	14CK	15BS	14CK	16CK	17CK	12BS	14CK	18DS	17DS	106
105	9	10	10	11AS	13	12AS	13AK	13BK	12BS	12BS	14BS	13CS	15BK	14CS	16CS	17CS	11BK	13CS	18DS	16DS	105
104	9	10	10	11AK	12	12AK	13AS	12BS	12BK	11BK	14BK	13CK	15BS	14CK	16CK	16CK	11BS	13BK	18DS	16CS	104
103	9	10	10	11AS	12	12AS	13AK	12BK	12AK	11BS	14BS	13CS	14BK	14CS	15CS	16CS	11BK	13BS	17DS	16CK	103
102	9	10	10	10AK	12	12AK	12AS	12BS	11AK	11BK	13BK	12CK	14BS	14BK	15BK	16CK	10BS	12BK	17CS	15CS	102
101	9	9	10	10AS	12	11AS	12AK	12BK	11AS	11BS	13BS	12CS	14BK	13BS	15BS	15CS	10AK	12BS	17CS	15CK	101
100	9	9	10	10AK	12	11	12AS	11BS	11AK	10BK	13BK	12CK	14BS	13BK	15BK	15CK	10AS	12BK	16CS	14CS	100
99	9	9	9	10AS	11	11	12AK	11BK	11AS	10BS	12BS	11CS	13BK	13BS	14BS	14BS	9AK	11BS	16CS	14CK	99
98	8	9	9	10AK	11	11	11AS	11AS	10AK	10BK	12BK	11BK	13BS	13BK	14BK	14BK	9AS	11BK	16CS	14CS	98
97	8	9	9	9AS	11	10	11AK	11AK	10AS	9AS	12BS	11BS	13AK	12BS	14BS	14BS	9AK	11BS	15CK	13CK	97
96	8	9	9	9AK	11	10	11AS	10AS	10AK	9AK	12BK	10BK	13AS	12BK	13BK	13BK	8AS	10AK	15CS	13BS	96
95	8	9	9	9	11	10	11	10AK	10AS	9AS	11BS	10BS	13AK	12BS	13BS	13BS	8AK	10AS	15CK	12BK	95
94	8	8	9	9	10	10	10	10AS	10AK	9AK	11BK	10BK	12AS	12BK	13BK	13BK	8	9AK	14CS	12BS	94
93	8	8	8	9	10	10	10	9AK	9AS	8AS	11BS	9BS	12AK	11BS	12BS	12BS	7	9AS	14CK	12BK	93
92	8	8	8	8	10	9	10	9AS	9AK	8AK	10BK	9BK	12AS	11BK	12BK	12BK	7	9AK	14CS	11BS	92
91	8	8	8	8	10	9	10	9AK	9AS	8AS	10AS	9BS	12AK	11BS	12BS	12BS	7	8AS	13CK	11BK	91
90	8	8	8	8	10	9	9	9AS	9	7AK	10AK	8BK	12AS	11BK	12BK	11BK	6	8AK	13BS	10AS	90
89	7	8	8	8	9	9	9	8AK	8	7AS	9AS	8BS	11AK	11BS	11BS	11BS	6	8	13BK	10AK	89
88	7	8	7	8	9	9	9	8AS	8	7AK	9AK	8BK	11AS	10AK	11BK	11BK	6	7	12BS	10AS	88
87	7	7	7	7	9	8	9	8AK	8	7AS	9AS	7BS	11AK	10AS	11BS	10BS	5	7	12BK	9AK	87
86	7	7	7	7	9	8	8	8AS	8	6AK	8AK	7BK	11AS	10AK	10AK	10BK	5	7	12BS	9AS	86
85	7	7	7	7	9	8	8	7	7	6	8AS	7BS	10AK	10AS	10AS	10BS	5	6	11BK	8AK	85
84	7	7	7	7	8	8	8	7	7	6	8AK	6BK	10	9AK	10AK	9BK	4	6	11BS	8	84
83	7	7	7	7	8	8	8	7	7	5	7AS	6BS	10	9AS	9AS	9AS	4	0	11BK	0	83
82	7	7	6	6	8	7	7	7	7	5	7AK	6AK	10	9AK	9AK	8AK	4	0	10BS	0	82
81	7	7	6	6	8	7	7	6	7	5	7AS	5AS	10	9AS	9AS	8AS	3	0	10AK	0	81
80	6	6	6	6	8	7	7	6	6	5	7	5AK	9	9AK	9AK	8AK	3	0	10AS	0	80
79	6	6	6	6	7	7	7	6	6	4	6	5AS	9	8	8AS	7AS	3	0	9AK	0	79
78	6	6	6	5	7	7	6	6	6	4	6	4AK	9	8	8AK	7AK	0	0	9AS	0	78
77	6	6	5	5	7	6	6	5	6	4	6	4AS	9	8	8AS	7AS	0	0	9AK	0	77
76	6	6	5	5	7	6	6	5	5	3	5	4AK	8	8	7AK	6AK	0	0	8AS	0	76
75	6	6	5	5	7	6	6	5	5	3	5	3AS	8	7	7AS	6AS	0	0	8AK	0	75
74	6	6	5	5	6	6	5	4	5	3	5	3AK	8	7	7	6AK	0	0	8	0	74
73	6	5	5	4	6	5	5	4	5	3	4	3AS	8	7	6	5AS	0	0	0	0	73
72	5	5	5	4	6	5	5	4	4	2	4	2AK	8	7	6	5AK	0	0	0	0	72
71	5	5	4	4	6	5	5	4	4	2	4	2AS	7	6	6	5AS	0	0	0	0	71
70	5	5	4	4	6	5	4	3	4	2	3	2	7	6	6	4	0	0	0	0	70
69	5	5	4	4	5	5	4	3	4	0	3	0	7	6	5	4	0	0	0	0	69
68	5	5	4	3	5	4	4	3	4	0	3	0	7	6	5	0	0	0	0	0	68
67	5	5	4	3	5	4	4	3	3	0	2	0	7	6	5	0	0	0	0	0	67
66	5	4	4	3	5	4	3	2	3	0	2	0	6	5	4	0	0	0	0	0	66
65	5	4	3	3	5	4	3	2	3	0	2	0	6	5	4	0	0	0	0	0	65
64	5	4	3	3	4	4	3	2	3	0	0	0	6	5	4	0	0	0	0	0	64
63	4	4	3	2	4	3	3	2	2	0	0	0	6	5	0	0	0	0	0	0	63
62	4	4	3	2	4	3	2	1	2	0	0	0	5	4	0	0	0	0	0	0	62
61	4	4	3	2	4	3	2	1	2	0	0	0	5	4	0	0	0	0	0	0	61
60	4	4	2	2	4	3	2	1	2	0	0	0	5	4	0	0	0	0	0	0	60
59	4	3	2	2	3	3	2	0	0	0	0	0	5	4	0	0	0	0	0	0	59
58	4	3	2	1	3	2	1	0	0	0	0	0	5	0	0	0	0	0	0	0	58
57	4	3	2	1	3	2	1	0	0	0	0	0	4	0	0	0	0	0	0	0	57
56	4	3	2	1	3	2	1	0	0	0	0	0	4	0	0	0	0	0	0	0	56
55	4	3	2	1	3	2	1	0	0	0	0	0	4	0	0	0	0	0	0	0	55
54	3	3	1	0	2	2	0	0	0	0	0	0	4	0	0	0	0	0	0	0	54
53	3	3	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53
52	3	2	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52
51	3	2	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51
50	3	2	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
49	3	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
48	3	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
47	3	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
46	2	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
45	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
40-44	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40-44
38-39	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38-39
30-37	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30-37
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	

8.3.2 FALCHION ATTACK TABLE

Weapon Type:
One-Handed Slashing

Length:
2-3 feet

Weight:
3.5-5 feet

Fumble Range:
01-05 UM

Range (OB Mod):
—



8.3.3 HAND AXE ATTACK TABLE

Weapon Type:
One-Hand Slashing

Length:
2-3 feet

Weight:
4-6 pounds

Fumble Range:
01-04 UM

Range (OB Mod):
1'-10' (–15)
11'-25' (–30)
26'-50' (–45)



	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
150	11EK	13EK	15EK	17EK	18EK	18EK	21EK	21EK	18EK	20EK	24EK	24EK	18ES	18ES	23ES	26ES	20ES	23ES	26ES	28ES	150
149	11EK	13EK	15EK	17EK	18EK	18EK	21EK	21EK	18ES	20ES	24ES	24ES1'	18ES	18ES	23ES	26ES	20ES	23ES	26ES	28ES	149
148	11EK	13EK	15EK	17EK	18EK	18EK	21EK	21EK	18EK	20EK	24EK	24EK	18ES	18ES	23ES	26ES	20ES	23ES	26ES	28ES	148
147	11EK	13EK	15EK	17EK	18EK	18EK	21EK	21EK	18ES	20ES	24ES	24ES	18ES	18ES	23ES	26ES	20ES	23ES	26ES	28ES	147
146	11DK	13DK	15EK	17EK	18EK	18EK	21EK	21EK	18EK	20EK	23EK	23EK	18ES	18ES	23ES	25ES	20ES	22ES	26ES	27ES	146
145	11DK	13DK	15EK	17EK	18EK	18EK	20EK	20EK	18ES	19ES	23ES	23ES	18ES	18ES	22ES	25ES	19ES	22ES	25ES	27ES	145
144	11DK	13DK	15DK	17EK	18EK	18EK	20EK	20EK	17EK	19EK	23EK	23EK	18ES	18ES	22ES	25ES	19ES	22ES	25ES	27ES	144
143	11DK	13DK	15DK	16EK	17EK	17EK	20EK	20EK	17ES	19ES	23ES	23ES	17ES	17ES	22ES	25ES	19ES	22ES	25ES	26ES	143
142	11CK	13CK	14DK	16EK	17DK	17DK	20DK	20EK	17EK	19EK	22EK	22EK	17ES	17ES	22ES	24ES	19ES	21ES	25ES	26ES	142
141	11CK	13CK	14DK	16EK	17DK	17DK	20DK	20EK	17ES	18ES	22ES	22ES	17ES	17ES	22ES	24ES	18ES	21ES	24ES	26ES	141
140	11CK	12CK	14DK	16DK	17DS	17DK	19DK	19EK	17DK	18EK	22EK	22EK	17DS	17ES	21ES	24ES	18EK	21ES	24ES	26ES	140
139	11CK	12CK	14DK	16DK	17DK	17DS	19DK	19EK	17DS	18ES	22ES	21ES	17DS	17ES	21ES	24ES	18ES	21EK	24ES	25ES	139
138	10CK	12CK	14DK	16DK	17DS	17DK	19DS	19DK	16DK	18EK	21EK	21EK	17DK	17ES	21ES	23ES	18EK	20ES	24ES	25EK	138
137	10CS	12CK	14CK	15DK	16DK	16DS	19DK	19DK	16DS	18DS	21DS	21ES	17DS	16DK	21ES	23ES	17ES	20EK	23ES	25ES	137
136	10CK	12CK	14CK	15DK	16DS	16DK	19DS	19DS	16DK	17DK	21DK	21EK	16DK	16DS	20EK	23ES	17DK	20ES	23EK	24EK	136
135	10BS	12BK	13CK	15DK	16DK	16DS	18DK	18DK	16DS	17DS	21DS	20ES	16DS	16DK	20DS	22EK	17DS	20EK	23ES	24ES	135
134	10BK	12BS	13CK	15DK	16DS	16DK	18DS	18DS	16DK	17DK	20DK	20EK	16DK	16DS	20DK	22ES	17DK	19ES	23EK	24EK	134
133	10BS	12BK	13CK	15DK	16DK	16DS	18DK	18DK	15DS	17DS	20DS	20DS	16DS	16DK	20DS	22EK	16DS	19DK	23ES	23ES	133
132	10BK	12BS	13CK	15DK	16CS	16DK	18DS	18DS	15DK	16DK	20DK	20DK	16DK	16DS	20DK	22DS	16DK	19DS	22EK	23EK	132
131	10BS	11BK	13CK	14DK	15CK	15CS	18CK	17DK	15DS	16DS	20DS	19DS	16DS	16DK	19DS	21DK	16DS	19DK	22ES	23ES	131
130	10BK	11BS	13CS	14DK	15CS	15CK	17CS	17DS	15CK	16DK	19DK	19DK	16CK	15DK	19DK	21DS	16DK	18DK	22EK	23EK	130
129	10AS	11BK	13CK	14CK	15CK	15CS	17CK	17DK	15CS	16DS	19DS	19DS	15CK	15DK	19DS	21DS	16DS	18DK	22ES	22ES	129
128	10AK	11AS	12BS	14CK	15CS	15CK	17CS	17DS	15CK	16DK	19DK	18DK	15CK	15DS	19DK	21DS	15DK	18DS	21EK	22EK	128
127	10AS	11AK	12BK	14CK	15CK	15CS	17CK	17DK	14CS	15DS	19DS	18DS	15CS	15DK	18DS	20DK	15DS	18DK	21ES	22ES	127
126	9AK	11AS	12BS	14CS	15CS	15CK	17CS	16DS	14CK	15DK	18DK	18DK	15CK	15DS	18DK	20DS	15DK	17DS	21EK	21DK	126
125	9AS	11AK	12BK	13CK	15CK	14CS	16CK	16DK	14CS	15DS	18DS	18DS	15CS	15DK	18DS	20DK	15DS	17DK	21ES	21DS	125
124	9AK	11AS	12BS	13CS	14CS	14CK	16CS	16CS	14CK	15CK	18DK	17DK	15CK	14DS	18DK	20DS	14CK	17DS	20DK	21DK	124
123	9AS	11AK	12BK	13CK	14CK	14CS	16CK	16CK	14CS	14CS	18DS	17DS	14CS	14DK	18DS	19DK	14CS	17DK	20DS	21DS	123
122	9AK	10AS	12BS	13CS	14BS	14CK	16CS	16CS	13CK	14CK	17CK	17DK	14CK	14DS	17DK	19DS	14CK	16DS	20DK	20DK	122
121	9AS	10AK	12BK	13CK	14BK	14CS	16CK	15CK	13CS	14CS	17CS	17DS	14CS	14CK	17DS	19DK	14CS	16DK	20DS	20DS	121
120	9AK	10AS	11BS	13CS	14BS	14BK	15CS	15CS	13CK	14CK	17CK	16DK	14CK	14CS	17DK	18DS	13CK	16DS	19DK	20DK	120
119	9	10AK	11AK	12CK	14BK	13BS	15CK	15CK	13CS	13CS	16CS	16DS	14CS	14CK	17CS	18DK	13CS	16CK	19DS	19DS	119
118	9	10AS	11AS	12BS	13BS	13BK	15CS	15CS	13CK	13CK	16CK	16DK	14CK	13CS	16CK	18DS	13CK	15CS	19DK	19DK	118
117	9	10AK	11AK	12BK	13BK	13BS	15CK	14CK	13CS	13CS	16CS	15DS	14CS	13CK	16CS	18DK	13CS	15CK	19DS	19DS	117
116	9	10AS	11AS	12BS	13BS	13BK	15BS	14CS	12CK	13CK	16CK	15DK	13CK	13CS	16CK	17DS	12CK	15CS	19DK	18DK	116
115	9	10AK	11AK	12BK	13BK	13BS	14BK	14CK	12BS	13CS	15CS	15CS	13BS	13CK	16CS	17DK	12CS	15CK	18DS	18DS	115
114	8	10	11AS	12BS	13AS	13BK	14BS	14CS	12BK	12CK	15CK	15CK	13BK	13CS	16CK	17DS	12CK	14CS	18DK	18DK	114
113	8	9	10AK	11BK	13AK	12BS	14BK	14CK	12BS	12CS	15CS	14CS	13BS	13CK	15CS	17CK	12BS	14CK	18DS	18DS	113
112	8	9	10AS	11BS	12AS	12BK	14BS	13CS	12BK	12CK	15CK	14CK	13BK	13CS	15CK	16CS	11BK	14CS	18DK	17DK	112
111	8	9	10AK	11BK	12AK	12BS	14BK	13CK	11BS	12CS	14CS	14CS	13BS	12CK	15CS	16CK	11BS	14CK	17DS	17DS	111
110	8	9	10AS	11BS	12AS	12AK	13BS	13BS	11BK	11CK	14CK	14CK	13BK	12CS	15CK	16CK	11BK	13CS	17DK	17CK	110
109	8	9	10AK	11BK	12AK	12AS	13BK	13BK	11BS	11BS	14CS	13CS	12BS	12CK	14CS	16CK	11BS	13BK	17DS	16CS	109
108	8	9	10AS	11AS	12AS	12AK	13BS	13BS	11BK	11BK	14CK	13CK	12BK	12CS	14CK	15CS	11BK	13BS	17DK	16CK	108
107	8	9	10AK	10AK	12AK	11AS	13BK	12BK	11BS	11BS	13CS	13CS	12BS	12CK	14CS	15CK	10AS	13BK	16CS	16CS	107
106	8	9	9AS	10AS	12AS	11AK	13AS	12BS	11BK	11BK	13CK	12CK	12BK	12CS	14CK	15CS	10AK	12BS	16CK	15CK	106
105	8	9	9AK	10AK	11AK	11AS	12AK	12BK	10BS	10BS	13CS	12CS	12BS	11BK	14BS	14CK	10AS	12BK	16CS	15CS	105
104	8	8	9	10AS	11	11AK	12AS	12BS	10BK	10BK	13BK	12CK	12BK	11BS	13BK	14CS	10AK	12BS	16CK	15CK	104
103	7	8	9	10AK	11	11AS	12AK	12BK	10BS	10BS	12BS	12CS	12BS	11BK	13BS	14CK	9AS	12BK	15CS	15CS	103
102	7	8	9	10AS	11	11AK	12AS	11BS	10AK	10BK	12BK	11CK	11BK	11BS	13BK	14BS	9AK	11BS	15CK	14BK	102
101	7	8	9	9AK	11	10AS	12AK	11BK	10AS	9BS	12BS	11CS	11AS	11BK	13BS	13BK	9AS	11AK	15CS	14BS	101
100	7	8	9	9AS	11	10AK	11AS	11BS	9AK	9BK	12BK	11CK	11AK	11BS	13BK	13BS	9AK	11AS	15CK	14BK	100
99	7	8	8	9AK	10	10	11AK	11BK	9AS	9BS	11BS	11CS	11AS	11BK	12BS	13BK	8	11AK	15CS	13BS	99
98	7	8	8	9AS	10	10	11AS	10AS	9AK	9BK	11BK	10CK	11AK	10BS	12BK	13BS	8	10AS	14CK	13BK	98
97	7	8	8	9AK	10	10	11AK	10AK	9AS	9BS	11BS	10CS	11AS	10BK	12BS	12BK	8	10AK	14CS	13BS	97
96	7	8	8	9AS	10	10	11AS	10AS	9AK	8AK	11BK	10BK	10AK	10BS	12BK	12BS	8	10AS	14CK	13AK	96
95	7	7	8	9AK	10	9	10AK	10AK	9AS	8AS	10BS	9BS	10AS	10BK	11BS	12BK	7	10AK	14BS	12AS	95
94	7	7	8	8	10	9	10	10AS	8AK	8AK	10BK	9BK	10AK	10BS	11BK	12BS	7	9	13BK	12AK	94
93	7	7	8	8	9	9	10	9AK	8AS	8AS	10BS	9BS	10AS	10BK	11BS	11BK	7	9	13BS	12AS	93
92	7	7	8	8	9	9	10	9AS	8AK	7AK	10BK	9BK	10AK	9AS	11BK	11BS	7	9	13BK	11AK	92
91	6	7	7	8	9	9	10	9AK	8	7AS	9AS	8BS	10AS	9AK	11BS	11BK	7	9	13BS	11AS	91
90	6	7	7	8	9	9	9	9AS	8	7AK	9AK	8BK	10AK	9AS	10AK	10BS	6	8	12BK	11AK	90
89	6	7	7	8	9	8	9	9AK	7	7AS	9AS	8BS	9	9AK	10AS	10BK	6	8	12BS	10	89
88	6	7	7	7	9	8	9	8AS	7	6AK	8AK	8BK	9	9AS	10AK	10BS	6	8	12BK	10	88
87	6	7	7	7	9	8	9	8AK	7	6AS	8AS	7BS	9	9AK	10AS	10AK	6	8	12BS	10	87
86	6	7	7	7	8	8	9	8AS	7	6	8AK	7BK	9	8AS	9AK	9AS	5	7	11AK	10	86
85	6	6	7	7	8	8	8	8AK	7	6	8AS	7BS	9	8AK	9AS	9AK	5	7	11AS	9	85
84	6	6	6	7	8	8	8	7	7	6	7AK	6BK	9	8	9AK	9AS	5	7	11AK	9	84
83	6	6	6	7	8	7	8	7	6	5	7AS	6BS	9	8	9AS	9AK	5	7	11AS	9	83
82	6	6	6	6	8	7	8	7	6	5	7AK	6BK	8	8	9AK	8AS	4	6	11AK	8	82
81	6	6	6	6	8	7	8	7	6	5	7	6AS	8	8	8AS	8AK	4	6	10AS	8	81
80	6	6	6	6	7	7	7	7	6	5	6	5AK	8	8	8AK	8AS	4	6	10AK	8	80
79	5	6	6	6	7	7	7	6	6	4	6	5AS	8	7	8	8AK	4	0	10	0	79
78	5	6	6	6	7	7	7	6	5	4	6	5AK	8	7	8	7AS	3	0	10	0	78
77	5	6	5	6	7	6	7	6	5	4	6	5AS	8	7	7	7AK	3	0	9	0	77
76	5	5	5	5	7	6	7	6	5	4	5	4AK	8	7	7	7AS	3	0	9	0	76
75	5	5	5	5	7	6	6	6	5	4	5	4AS	7	7	7	6AK	3	0	9	0	75
74	5	5	5	5	6	6	6	5	5	3	5	4AK	7	7	7	6	0	0	9	0	74
73	5	5	5	5	6	6	6	5	5	3	5	3AS	7	6	7	6	0	0	8	0	73
72	5	5	5	5	6	6	6	5	4	3	4	3AK	7	6	6	6	0	0	8	0	72
71	5	5	5	5	6	5	6	5	4	3	4	3	7	6	6	5	0	0	8	0	71
70	5	5	4	4	6	5	5	5	4	2	4	3	7	6	6	5	0	0	8	0	70
69	5	5	4	4	6	5	5	4	4	2	4	2	6	6	6	5	0	0	0	0	69
68	5	5	4	4	6	5	5	4	4	2	3	2	6	6	5	5	0	0	0	0	68
67	4	4	4	4	5	5	5	4	3	2	3	2	6	6	5	4	0	0	0	0	67
66	4	4	4	4	5	5	5	4	3	0	3	0	6	5	5	4	0	0	0	0	66
65	4	4	4	4	5	4	4	3	3	0	3	0	6	5	5	4	0	0	0	0	65
64	4	4	4	3	5	4	4	3	3	0	2	0	6	5	5	0	0	0	0	0	64
63	4	4	4	3	5	4	4	3	3	0	2	0	6	5	4	0	0	0	0	0	63
62	4	4	3	3	5	4	4	3	3	0	2	0	5	5	4	0	0	0	0	0	62
61	4	4	3	3	4	4	4	3	2	0	0	0	5	5	4	0	0	0	0	0	61
60	4	4	3	3	4	4	3	2	2	0	0	0	5	4	4	0	0	0	0	0	60
59	4	4	3	3	4	3	3	2	2	0	0	0	5	4	0	0	0	0	0	0	59
58	4	3	3	2	4	3	3	2	2	0	0	0	5	4	0	0	0	0	0	0	58
57	4	3	3	2	4	3	3	2	2	0	0	0	5	4	0	0	0	0	0	0	57
56	3	3	3	2	4	3	3	2	0	0	0	0	5	4	0	0	0	0	0	0	56
55	3	3	2	2	3	3	2	1	0	0	0	0	4	4	0	0	0	0	0	0	55
54	3	3	2	2	3	3	2	1	0	0	0	0	4	0	0	0	0	0	0	0	54
53	3	3	2	2	3	2	2	1	0	0	0	0	4	0	0	0	0	0	0	0	53
52	3	3	2	1	3	2	2	1	0	0	0	0	4	0	0	0	0	0	0	0	52
51	3	3	2	1	3	2	2	0	0	0	0	0	4	0	0	0	0	0	0	0	51
50	3	3	2	1	3	2	1	0	0	0	0	0	4	0	0	0	0	0	0	0	50
49	3	2	2	1	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	49
48	3	2	1	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	48
47	3	2	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	47
45-46	3	2	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45-46
42-44	2	2	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42-44
37-41	2	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37-41
32-36	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32-36
22-31	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22-31
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	

8.3.4 MAINE GAUCHE ATTACK TABLE

Weapon Type: One-Handed Slashing

Length: 1-1.5 feet

Weight: 1-2 pounds

Fumble Range: 01-02 UM

Range (OB Mod): 1'-10' (–15)

	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
150	4CP	6CP	8EP	10EP	9EP	9EP	12EP	12EP	8EP	10EP	14EP	14EP	10EP	10EP	15EP	18EP	12EP	15EP	18EP	20EP	150
149	4CP	6CP	8DP	10EP	9DP	9DP	12EP	12EP	8EP	10EP	14EP	14EP	10EP	10EP	15EP	18EP	12EP	15EP	18EP	20EP	149
148	4BP	6CP	8DP	10EP	9DP	9DP	12DP	12EP	8EP	10EP	14EP	14EP	10EP	10EP	15EP	18EP	12EP	15EP	18EP	20EP	148
147	4BP	6BP	8CP	10DP	9CP	9DP	12DP	12EP	8DP	10EP	14EP	14EP	10EP	10EP	15EP	18EP	12EP	15EP	18EP	20EP	147
146	4BP	6BP	8CP	10DP	9CP	9CP	12DP	12DP	8DP	10EP	14EP	14EP	10EP	10EP	15EP	18EP	12EP	15EP	18EP	20EP	146
145	4AP	6BP	8CP	10DP	9CP	9CP	12DP	12DP	8DP	10DP	14DP	14EP	10EP	10EP	15EP	17EP	12EP	15EP	18EP	19EP	145
144	4AP	6BP	8CP	10DP	9CP	9CP	12CP	12DP	8DP	10DP	14DP	13EP	10EP	10EP	15EP	17EP	12EP	14EP	18EP	19EP	144
143	4AP	6AP	8CP	10CP	9CP	9CP	12CP	12DP	8CP	10DP	13DP	13EP	10DP	10EP	14EP	17EP	11EP	14EP	17EP	19EP	143
142	4AP	6AP	8BP	10CP	9BP	9CP	11CP	11DP	8CP	10DP	13DP	13DP	10DP	10EP	14EP	17EP	11EP	14EP	17EP	19EP	142
141	4AP	6AP	8BP	9CP	9BP	9CP	11CP	11DP	8CP	9DP	13DP	13DP	10DP	10DP	14EP	17EP	11EP	14EP	17EP	19EP	141
140	4AK	6AP	8BP	9CP	9BP	9BP	11CP	11CP	8CP	9CP	13DP	13DP	10DP	10DP	14DP	16EP	11DP	14DP	17EP	18EP	140
139	4	6AP	8BP	9CP	9BP	8BP	11CP	11CP	8CP	9CP	13DP	13DP	10DP	10DP	14DP	16EP	11DP	14EP	17EP	18EP	139
138	4	6AP	7BP	9CP	8BP	8BP	11CP	11CP	8CP	9CP	13CP	12DP	9DP	9DP	14DP	16DP	11DP	13DP	17EP	18EP	138
137	4	6AP	7BP	9CP	8BP	8BP	11CP	11CP	7CP	9CP	12CP	12DP	9DP	9DP	14DP	16DP	10DP	13DP	16EP	18EP	137
136	4	6AP	7BP	9BP	8AP	8BP	11CP	11CP	7CP	9CP	12CP	12DP	9CP	9DP	13DP	16DP	10DP	13DP	16EP	17EP	136
135	4	6AK	7AP	9BP	8AP	8BP	10BP	10CP	7CP	9CP	12CP	12DP	9CP	9DP	13DP	15DP	10DP	13DP	16EP	17EP	135
134	4	6	7AP	9BP	8AP	8BP	10BP	10CP	7CP	9CP	12CP	12DP	9CP	9DP	13DP	15DP	10DP	13DP	16EP	17EP	134
133	4	6	7AP	9BP	8AP	8BP	10BP	10CP	7BP	8CP	12CP	12CP	9CP	9DP	13DP	15DP	10DP	13DP	16EP	17DP	133
132	4	5	7AP	8BP	8AP	8AP	10BP	10CP	7BP	8CP	12CP	11CP	9CP	9DP	13DP	15DP	10CP	12DP	16EP	17DP	132
131	4	5	7AP	8BP	8AP	8AP	10BP	10CP	7BP	8CP	11CP	11CP	9CP	9DP	13DP	15DP	10CS	12DP	15EP	16DP	131
130	4	5	7AP	8BP	8AP	8AP	10BP	10BP	7BP	8CP	11CP	11CP	9CP	9CP	12DP	14DP	9CP	12DP	15DP	16DP	130
129	4	5	7AP	8BP	8AS	8AP	10BP	10BP	7BP	8BP	11CP	11CP	9CP	9CP	12CP	14DP	9CS	12DP	15DP	16DP	129
128	4	5	7AP	8AP	8AP	7AP	10BP	9BP	7BP	8BP	11CP	11CP	9CP	9CP	12CP	14DP	9CP	12CS	15DP	16DP	128
127	4	5	7AS	8AP	7AS	7AP	9AP	9BP	7BP	8BP	11CP	11CP	9CP	8CP	12CP	14DP	9CS	12CP	15DP	16DS	127
126	4	5	6AP	8AP	7AP	7AS	9AP	9BP	7BS	8BP	11CP	10CP	8CP	8CP	12CP	14DP	9CP	11CS	15DP	15DP	126
125	4	5	6AK	8AP	7AK	7AP	9AP	9BP	6BP	7BP	10BP	10CP	8CP	8CP	12CP	13CP	9CS	11CP	14DP	15DS	125
124	4	5	6	8AP	7	7AS	9AP	9BP	6BS	7BP	10BP	10CP	8CP	8CP	12CP	13CP	8CP	11CS	14DP	15DP	124
123	4	5	6	7AP	7	7AP	9AP	9BP	6BP	7BS	10BP	10CP	8CP	8CP	11CP	13CP	8CS	11CP	14DP	15DS	123
122	4	5	6	7AP	7	7AS	9AP	9BP	6AS	7BP	10BP	10CP	8BP	8CP	11CP	13CP	8CP	11CS	14DP	14DP	122
121	3	5	6	7AP	7	7AP	9AS	8BP	6AP	7BS	10BP	9CP	8BS	8CP	11CP	13CP	8BS	11CP	14DS	14CS	121
120	3	5	6	7AP	7	7AK	9AP	8BP	6AS	7BP	10BS	9CP	8BP	8CP	11CP	12CP	8BP	10CS	14DP	14CP	120
119	3	5	6	7AP	7	7	8AS	8AP	6AP	7BS	9BP	9CP	8BS	8CP	11CP	12CP	8BS	10CP	14DS	14CS	119
118	3	5	6	7AP	7	6	8AP	8AP	6AS	7BP	9BS	9BP	8BP	8CS	11CP	12CP	7BP	10BS	13DP	14CP	118
117	3	5	6	7AS	7	6	8AS	8AP	6AP	7AS	9BP	9BP	8BS	8CP	10CP	12CP	7BS	10BP	13CS	13CS	117
116	3	5	6	7AP	6	6	8AP	8AP	6AS	6AP	9BS	9BP	8BP	7CS	10CS	12CP	7BP	10BS	13CP	13CP	116
115	3	4	6	7AK	6	6	8AK	8AP	6AP	6AS	9BP	8BP	8BS	7CP	10BP	11CP	7BS	10BP	13CS	13CS	115
114	3	4	5	6	6	6	8	7AP	6AS	6AP	9BS	8BS	7BP	7BS	10BS	11CS	7BP	9BS	13CP	13CP	114
113	3	4	5	6	6	6	8	7AS	5AP	6AS	8AP	8BP	7BS	7BP	10BP	11CP	7AS	9BP	13CS	13CS	113
112	3	4	5	6	6	6	7	7AP	5AS	6AP	8AS	8BS	7BP	7BS	10BS	11BS	7AP	9BS	12CP	12CP	112
111	3	4	5	6	6	6	7	7AS	5AP	6AS	8AP	8BP	7BS	7BP	10BP	11BP	6AS	9BP	12CS	12BS	111
110	3	4	5	6	6	6	7	7AP	5AK	6AP	8AS	8BS	7BP	7BS	9BS	10BS	6AP	9BS	12CP	12BP	110
109	3	4	5	6	6	6	7	7AS	5	6AS	8AP	7BP	7BS	7BP	9BP	10BP	6AS	9AP	12CS	12BS	109
108	3	4	5	6	6	6	7	7AP	5	5AP	8AS	7BS	7AP	7BS	9BS	10BS	6AP	8AS	12CP	11BP	108
107	3	4	5	6	6	5	7	6AS	5	5AS	8AP	7BP	7AS	7BP	9BP	10BP	6AS	8AP	12CS	11BS	107
106	3	4	5	6	6	5	7	6AP	5	5AP	7AS	7BS	7AP	7BS	9BS	10BS	6AP	8AS	11CP	11BP	106
105	3	4	5	5	5	5	6	6AK	5	5AK	7AP	7BP	7AS	6BP	9BP	9BP	5AS	8AP	11BS	11BS	105
104	3	4	5	5	5	5	6	6	5	5	7AS	7AS	7AP	6BS	8BS	9BS	5AP	8AS	11BP	11BP	104
103	3	4	5	5	5	5	6	6	5	5	7AP	6AP	7AS	6BP	8BP	9BP	5AK	8AP	11BS	10BS	103
102	3	4	4	5	5	5	6	6	5	5	7AS	6AS	6AP	6BS	8BS	9BS	5	7AS	11BP	10AP	102
101	3	4	4	5	5	5	6	6	4	5	7AP	6AP	6AS	6BP	8BP	9BP	5	7AP	11BS	10AS	101
100	3	4	4	5	5	5	6	5	4	4	6AK	6AS	6AP	6AS	8BS	8BS	5	7AS	10BP	10AP	100
99	3	4	4	5	5	5	6	5	4	4	6	6AP	6AS	6AP	8AP	8BP	4	7AP	10BS	10AS	99
98	3	4	4	5	5	5	6	5	4	4	6	5AS	6AP	6AS	8AS	8BS	4	7AK	10BP	9AP	98
97	3	3	4	5	5	4	5	5	4	4	6	5AP	6AS	6AP	7AP	8BP	4	7	10BS	9AS	97
96	3	3	4	4	5	4	5	5	4	4	6	5AS	6AP	6AS	7AS	8BS	4	6	10BP	9AP	96
95	3	3	4	4	5	4	5	5	4	4	6	5AP	6AS	6AP	7AP	7AP	4	6	10BS	9AS	95
94	3	3	4	4	4	4	5	5	4	4	5	5AS	6AP	6AS	7AS	7AS	4	6	10AP	8AP	94
93	3	3	4	4	4	4	5	4	4	4	5	5AP	6AK	5AP	7AP	7AP	4	6	9AS	8AK	93
92	2	3	4	4	4	4	5	4	4	4	5	4AS	6	5AS	7AS	7AS	3	6	9AP	8	92
91	2	3	4	4	4	4	5	4	4	3	5	4AP	6	5AP	6AP	7AP	3	6	9AS	8	91
90	2	3	3	4	4	4	4	4	4	3	5	4AK	5	5AS	6AS	6AS	3	5	9AP	8	90
89	2	3	3	4	4	4	4	4	3	3	5	4	5	5AP	6AP	6AP	3	5	9AS	7	89
88	2	3	3	4	4	4	4	4	3	3	4	4	5	5AK	6AS	6AS	3	5	9AP	7	88
87	2	3	3	3	4	4	4	4	3	3	4	4	5	5	6AP	6AP	3	5	8AS	7	87
86	2	3	3	3	4	3	4	3	3	3	4	3	5	5	6AS	6AS	2	5	8AP	7	86
85	2	3	3	3	4	3	4	3	3	3	4	3	5	5	6AP	5AP	2	0	8AS	0	85
84	2	3	3	3	4	3	4	3	3	3	4	3	5	5	5AK	5AS	2	0	8AP	0	84
83	2	3	3	3	3	3	4	3	3	2	4	3	5	5	5AS	5AP	2	0	8AK	0	83
82	2	3	3	3	3	3	3	3	3	2	3	3	5	4	5	5AS	2	0	8	0	82
81	2	3	3	3	3	3	3	3	3	2	3	3	5	4	5	5AP	2	0	7	0	81
80	2	2	3	3	3	3	3	3	3	2	3	2	5	4	5	4AS	0	0	7	0	80
79	2	2	3	3	3	3	3	2	3	2	3	2	5	4	5	4AP	0	0	7	0	79
78	2	2	2	2	3	3	3	2	3	2	3	2	4	4	4	4AK	0	0	7	0	78
77	2	2	2	2	3	3	3	2	2	2	3	2	4	4	4	4	0	0	7	0	77
76	2	2	2	2	3	2	3	2	2	2	2	2	4	4	4	4	0	0	7	0	76
75	2	2	2	2	3	2	2	2	2	0	2	0	4	4	4	3	0	0	0	0	75
74	2	2	2	2	3	2	2	2	2	0	2	0	4	4	4	3	0	0	0	0	74
73	2	2	2	2	3	2	2	2	2	0	2	0	4	4	4	3	0	0	0	0	73
72	2	2	2	2	2	2	2	1	2	0	2	0	4	4	4	3	0	0	0	0	72
71	2	2	2	2	2	2	2	1	2	0	2	0	4	3	3	3	0	0	0	0	71
70	2	2	2	2	2	2	2	1	2	0	0	0	4	3	3	0	0	0	0	0	70
69	2	2	2	1	2	2	2	1	2	0	0	0	4	3	3	0	0	0	0	0	69
68	2	2	2	1	2	2	2	1	2	0	0	0	4	3	3	0	0	0	0	0	68
67	2	2	2	1	2	2	1	1	2	0	0	0	4	3	3	0	0	0	0	0	67
66	2	2	1	1	2	2	1	1	2	0	0	0	3	3	3	0	0	0	0	0	66
65	2	2	1	1	2	1	1	0	0	0	0	0	3	3	0	0	0	0	0	0	65
64	2	2	1	1	2	1	1	0	0	0	0	0	3	3	0	0	0	0	0	0	64
63	1	2	1	1	2	1	1	0	0	0	0	0	3	3	0	0	0	0	0	0	63
62	1	1	1	1	2	1	1	0	0	0	0	0	3	3	0	0	0	0	0	0	62
61	1	1	1	1	1	1	1	0	0	0	0	0	3	3	0	0	0	0	0	0	61
60	1	1	1	0	1	1	0	0	0	0	0	0	3	0	0	0	0	0	0	0	60
59	1	1	1	0	1	1	0	0	0	0	0	0	3	0	0	0	0	0	0	0	59
58	1	1	1	0	1	1	0	0	0	0	0	0	3	0	0	0	0	0	0	0	58
57	1	1	1	0	1	1	0	0	0	0	0	0	3	0	0	0	0	0	0	0	57
56	1	1	1	0	1	1	0	0	0	0	0	0	3	0	0	0	0	0	0	0	56
55	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55
54	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54
53	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53
52	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52
51	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51
50	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
49	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
48	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
47	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
46	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
45	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
44	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
43	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
36-42	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36-42
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	

8.3.5 SCIMITAR ATTACK TABLE

Weapon Type: One-Handed Slashing

Length: 2.5-4 feet

Weight: 3-5 pounds

Fumble Range: 01-04 UM

Range (OB Mod): —



	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
150	7EK	7EK	8EK	13EK	11EK	11EK	14EK	14EK	16ES	18ES	22ES	22ES	20ES	20ES	25ES	28ES	22ES	25ES	28ES	30ES	150
149	7DK	7DK	8EK	13EK	11ES	11ES	14ES	14ES	16ES	18ES	22ES	22ES	20ES	20ES	25ES	28ES	22ES	25ES	28ES	30ES	149
148	7DK	7DK	8EK	13EK	11EK	11EK	14EK	14EK	16ES	18ES	22ES	22ES	20ES	20ES	25ES	28ES	22ES	25ES	28ES	30ES	148
147	7CK	7CK	8DK	13EK	11ES	11ES	14ES	14ES	16ES	18ES	22ES	22ES	20ES	20ES	25ES	28ES	22ES	25ES	28ES	29ES	147
146	7CK	7CK	8DK	13EK	11DK	11DK	14DK	14EK	16ES	18ES	21ES	21ES	20ES	20ES	24ES	27ES	21ES	24ES	27ES	29ES	146
145	7CK	7CK	8DK	13EK	11DS	11DS	14DS	14ES	16ES	17ES	21ES	21ES	20ES	20ES	24ES	27ES	21ES	24ES	27ES	29ES	145
144	7CK	7CK	8DK	13EK	11DK	11DK	14DK	14EK	15ES	17ES	21ES	21ES	19ES	19ES	24ES	27ES	21ES	24ES	27ES	28ES	144
143	7CK	7CK	8DK	13DK	11DS	11DS	13DS	13ES	15DS	17ES	21ES	20ES	19ES	19ES	24ES	26ES	20ES	23ES	26ES	28ES	143
142	7BS	7CK	8CK	12DK	11DK	11DK	13DK	13DK	15DS	17ES	20ES	20ES	19ES	19ES	23ES	26ES	20ES	23ES	26ES	27ES	142
141	7BK	7BK	8CK	12DK	11DS	10DS	13DS	13DS	15DS	16DS	20DS	20ES	19ES	19ES	23ES	26ES	20ES	23ES	26ES	27ES	141
140	7BS	7BK	8CK	12DK	10DK	10DK	13DK	13DK	15DS	16DS	20DS	20ES	19DS	19ES	23ES	25ES	19ES	22ES	26ES	27ES	140
139	7BK	7BS	8CK	12DK	10CS	10DS	13DS	13DS	14DS	16DS	19DS	19ES	18DS	18ES	23ES	25ES	19ES	22ES	25ES	26ES	139
138	7BS	7BK	8CK	12DK	10CK	10CK	13CK	13DK	14DS	16DS	19DS	19ES	18DS	18ES	22ES	25ES	19ES	22ES	25ES	26ES	138
137	7BK	7BS	7CS	12DK	10CS	10CS	12CS	12DS	14DS	15DS	19DS	19DS	18DS	18DS	22ES	24ES	19ES	21ES	25ES	26ES	137
136	7BS	7BK	7CK	12DK	10CK	10CK	12CK	12DK	14DS	15DS	19DS	18DS	18DS	18DS	22ES	24ES	18ES	21ES	24ES	25ES	136
135	7AK	7BS	7CS	11DK	10CS	10CS	12CS	12DS	14CS	15DS	18DS	18DS	18DS	18ES	21ES	24ES	18ES	21ES	24ES	25ES	135
134	7AS	6BK	7BK	11DK	10CK	10CK	12CK	12DK	14CK	15DS	18DS	18DS	18DS	17DS	21DS	23ES	18DS	20ES	24ES	24ES	134
133	7AK	6AS	7BS	11CS	10CS	10CS	12CS	12DS	13CS	14DK	18DS	17DS	17DS	17DS	21DS	23ES	17DS	20ES	23ES	24ES	133
132	6AS	6AK	7BK	11CK	10BK	9CK	12CK	12DK	13CK	14DS	18DK	17DS	17DS	17DS	21DS	23DS	17DS	20ES	23ES	24ES	132
131	6AK	6AS	7BS	11CS	9BS	9CS	12CS	11CS	13CS	14DK	17DS	17DS	17DS	17DS	20DS	22DS	17DS	19DS	23ES	23ES	131
130	6AS	6AK	7BK	11CK	9BK	9BK	11CK	11CK	13CK	14CS	17DK	17DS	17CS	17DS	20DS	22DS	16DS	19DS	23ES	23ES	130
129	6AK	6AS	7BS	11CS	9BS	9BS	11CS	11CS	13CS	13CK	17DS	16DS	17CS	16DS	20DS	22DS	16DS	19DS	22ES	23ES	129
128	6AS	6AK	7BK	11CK	9BK	9BK	11CK	11CK	12CK	13CS	16CK	16DK	16CS	16DS	20DS	21DS	16DS	18DS	22ES	22ES	128
127	6AK	6AS	7BS	10CS	9BS	9BS	11CS	11CS	12CS	13CK	16CS	16DS	16CS	16DS	19DS	21DS	16DS	18DS	22ES	22ES	127
126	6AS	6AK	7BK	10CK	9BK	9BK	11BK	11CK	12CK	13CS	16CK	15DK	16CK	16DS	19DS	21DS	15DS	18DS	21ES	21ES	126
125	6AK	6AS	7AS	10CS	9BS	9BS	11BS	10CS	12CS	13CK	16CS	15DS	16CS	16DS	19DS	20DS	15DS	17DS	21ES	21ES	125
124	6	6AK	6AK	10BK	9AK	9BK	10BK	10CK	12CK	12CS	15CK	15DK	16CK	15DS	18DS	20DS	15DS	17DS	21ES	21ES	124
123	6	6AS	6AS	10BS	9AS	8BS	10BS	10CS	11CS	12CK	15CS	15DS	15CS	15DK	18DS	20DS	14DS	17DS	21ES	20DS	123
122	6	6AK	6AK	10BK	8AK	8BK	10BK	10CK	11BK	12CS	15CK	14DK	15CK	15DS	18DK	19DS	14DS	16DS	20DS	20DS	122
121	6	6AS	6AS	10BS	8AS	8BS	10BS	10CS	11BS	12CK	14CS	14CS	15CS	15CK	18DS	19DS	14DS	16DS	20DS	20DS	121
120	6	6AK	6AK	9BK	8AK	8AK	10BK	10BK	11BK	11CS	14CK	14CK	15CK	15CS	17DK	19DS	13CK	16DS	20DS	19DS	120
119	6	6	6AS	9BS	8AS	8AS	10BS	9BS	11BS	11CK	14CK	13CS	15CS	14CK	17CS	18DK	13CK	15DS	19DS	19DS	119
118	6	5	6AK	9BK	8AK	8AK	10BK	9BK	11BK	11CS	14CK	13CK	15CK	14CS	17CK	18DS	13CK	15DS	19DS	18DS	118
117	6	5	6AS	9BS	8AS	8AS	9AS	9BS	10BS	11BK	13CS	13CS	14CS	14CK	17CS	18DK	12CS	15DK	19DS	18DS	117
116	6	5	6AK	9BK	8AK	8AK	9AK	9BK	10BK	10BS	13CK	12CK	14CK	14CS	16CK	17DS	12CK	14CS	18DS	18DS	116
115	5	5	6AS	9BS	8AS	7AS	9AS	9BS	10BS	10BK	13CS	12CS	14BS	14CK	16CS	17DK	12CS	14CK	18DS	17DS	115
114	5	5	6AK	9AK	8	7AK	9AK	9BK	10BK	10BS	13CK	12CK	14BK	13CS	16CK	17DS	12CK	13CS	18DS	17DK	114
113	5	5	6AS	8AS	7	7AS	9AS	8BS	10BS	10BK	12CS	12CS	14BS	13CK	15CS	16CK	11CS	13CK	18DS	17DS	113
112	5	5	5AK	8AK	7	7AK	9AK	8BK	9BK	9BS	12BK	11CK	13BK	13CS	15CK	16CS	11CK	13CS	17DS	16DK	112
111	5	5	5AS	8AS	7	7AS	8AS	8BS	9BS	9BK	12BS	11CS	13BS	13CK	15CS	16CK	11CS	13CK	17DS	16DS	111
110	5	5	5AK	8AK	7	7AK	8AK	8BK	9BK	9BS	11BK	11CK	13BK	13CS	15CK	15CS	10CK	12CS	17DS	15DK	110
109	5	5	5	8AS	7	7	8AS	8AS	9AS	9BK	11BS	10CS	13BS	12CK	14CS	15CK	10BS	12CK	16DS	15DS	109
108	5	5	5	8AK	7	7	8AK	8AK	9AK	8BS	11BK	10CK	13BK	12CS	14CK	15CS	10BK	12CS	16DK	15DK	108
107	5	5	5	8AS	7	7	8AS	7AS	9AS	8BK	11BS	10CS	12BS	12CK	14CS	14CK	9BS	11BK	16DS	14DS	107
106	5	5	5	8AK	7	6	8AK	7AK	8AK	8BS	10BK	9CK	12BK	12CS	14CK	14CS	9BK	11BS	15DK	14DK	106
105	5	5	5	7AS	7	6	8AS	7AS	8AS	8BK	10BS	9CS	12BS	12BK	13BS	14CK	9BS	11BK	15DS	14DS	105
104	5	5	5	7AK	6	6	7	7AK	8AK	7AS	10BK	9BK	12BK	11BS	13BK	13CS	9AK	10BS	15DK	13CK	104
103	5	5	5	7AS	6	6	7	7AS	8AS	7AK	10BS	9BS	12BS	11BK	13BS	13CK	8AS	10BK	15CS	13CS	103
102	5	4	5	7AK	6	6	7	7AK	8AK	7AS	9BK	8BK	12BK	11BS	12BK	13BS	8AK	10BS	14CK	12CK	102
101	5	4	5	7AS	6	6	7	7AS	7AS	7AK	9BS	8BS	11AS	11BK	12BS	12BK	8AS	9BK	14CS	12CS	101
100	5	4	5	7AK	6	6	7	6AK	7AK	7AS	9BK	8BK	11AK	11BS	12BK	12BS	7AK	9AS	14CK	12CK	100
99	5	4	4	7	6	6	7	6AS	7	6AK	8AS	7BS	11AS	10BK	12BS	12BK	7	9AK	13CS	11CS	99
98	4	4	4	6	6	6	6	6AK	7	6AS	8AK	7BK	11AK	10BS	11BK	11BS	7	8AS	13CK	11BK	98
97	4	4	4	6	6	5	6	6AS	7	6AK	8AS	7BS	11AS	10BK	11BS	11BK	6	8AK	13CS	11BS	97
96	4	4	4	6	6	5	6	6AK	6	6AS	8AK	7BK	10AK	10BS	11BK	11BS	6	8AS	13CK	10BK	96
95	4	4	4	6	6	5	6	6AS	6	5AK	7AS	6BS	10AS	10BK	11BS	10BK	6	7AK	12CS	10BS	95
94	4	4	4	6	5	5	6	5	6	5	7AK	6BK	10AK	9BS	10BK	10BS	6	7	12CK	9BK	94
93	4	4	4	6	5	5	6	5	6	5	7AS	6BS	10AS	9BK	10BS	10BK	5	7	12CS	9AS	93
92	4	4	4	6	5	5	6	5	6	5	6AK	5BK	10AK	9AK	10BK	9BK	5	6	11BK	9AK	92
91	4	4	4	6	5	5	5	5	6	4	6AS	5BS	9AS	9AK	9BS	9BK	5	6	11BS	8AS	91
90	4	4	4	5	5	5	5	5	5	4	6AK	5BK	9AK	9AS	9AK	9BS	4	6	11BK	8AK	90
89	4	4	4	5	5	5	5	5	5	4	6	4AS	9	8AK	9AS	8BK	4	0	10BS	0	89
88	4	4	4	5	5	4	5	4	5	4	5	4AK	9	8AS	9AK	8BS	4	0	10BK	0	88
87	4	4	4	5	5	4	5	4	5	3	5	4AS	9	8AK	8AS	8AK	3	0	10BS	0	87
86	4	3	3	5	5	4	5	4	5	3	5	4AK	9	8AS	8AK	7AS	3	0	10BK	0	86
85	4	3	3	5	4	4	4	4	4	3	5	3AS	8	8AK	8AS	7AK	3	0	9BS	0	85
84	4	3	3	5	4	4	4	4	4	3	4	3AK	8	7	8AK	7AS	0	0	9AK	0	84
83	4	3	3	4	4	4	4	4	4	2	4	3AS	8	7	7AS	6AK	0	0	9AS	0	83
82	4	3	3	4	4	4	4	3	4	2	4	2AK	8	7	7AK	6AS	0	0	8AK	0	82
81	4	3	3	4	4	4	4	3	4	2	3	2AS	8	7	7AS	6AK	0	0	8AS	0	81
80	3	3	3	4	4	3	4	3	4	2	3	2AK	7	7	6AK	5AS	0	0	8AK	0	80
79	3	3	3	4	4	3	4	3	3	0	3	0	7	6	6	5AK	0	0	0	0	79
78	3	3	3	4	4	3	3	3	3	0	3	0	7	6	6	5AS	0	0	0	0	78
77	3	3	3	4	4	3	3	3	3	0	2	0	7	6	6	4AK	0	0	0	0	77
76	3	3	3	3	3	3	3	2	3	0	2	0	7	6	5	4AS	0	0	0	0	76
75	3	3	3	3	3	3	3	2	3	0	2	0	6	6	5	4AK	0	0	0	0	75
74	3	3	2	3	3	3	3	2	2	0	0	0	6	5	5	0	0	0	0	0	74
73	3	3	2	3	3	3	3	2	2	0	0	0	6	5	5	0	0	0	0	0	73
72	3	3	2	3	3	3	2	2	2	0	0	0	6	5	4	0	0	0	0	0	72
71	3	3	2	3	3	2	2	2	2	0	0	0	6	5	4	0	0	0	0	0	71
70	3	2	2	3	3	2	2	1	2	0	0	0	6	5	4	0	0	0	0	0	70
69	3	2	2	3	3	2	2	1	0	0	0	0	5	4	0	0	0	0	0	0	69
68	3	2	2	2	3	2	2	1	0	0	0	0	5	4	0	0	0	0	0	0	68
67	3	2	2	2	2	2	2	1	0	0	0	0	5	4	0	0	0	0	0	0	67
66	3	2	2	2	2	2	2	1	0	0	0	0	5	4	0	0	0	0	0	0	66
65	3	2	2	2	2	2	1	1	0	0	0	0	5	4	0	0	0	0	0	0	65
64	3	2	2	2	2	2	1	0	0	0	0	0	4	0	0	0	0	0	0	0	64
63	2	2	2	2	2	2	1	0	0	0	0	0	4	0	0	0	0	0	0	0	63
62	2	2	2	2	2	1	1	0	0	0	0	0	4	0	0	0	0	0	0	0	62
61	2	2	1	1	2	1	1	0	0	0	0	0	4	0	0	0	0	0	0	0	61
60	2	2	1	1	2	1	1	0	0	0	0	0	4	0	0	0	0	0	0	0	60
59	2	2	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59
58	2	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58
57	2	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57
56	2	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56
55	2	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55
54	2	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54
53	2	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53
52	2	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52
51	2	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51
50	2	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
49	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
48	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
47	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
46	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
45	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
44	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
40-43	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40-43
30-39	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30-39
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	

8.3.6 RAPIER ATTACK TABLE

Weapon Type: One-Handed Slashing

Length: 3-5 feet

Weight: 1.5-3 pounds

Fumble Range: 01-04 UM

Range (OB Mod): —

	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
150	3CP	5DP	7EP	9EP	9EP	9EP	12EP	12EP	8EP	10EP	14EP	14EP	12EP	12EP	17EP	20EP	14EP	17EP	20EP	22EP	150
149	3CP	5CP	7EP	9EP	9EP	9EP	12EP	12EP	8EP	10EP	14EP	14EP	12EP	12EP	17EP	20EP	14EP	17EP	20EP	22EP	149
148	3CP	5CP	7DP	9EP	9EP	9EP	12EP	12EP	8EP	10EP	14EP	14EP	12EP	12EP	17EP	20EP	14EP	17EP	20EP	22EP	148
147	3CP	5CP	7DP	9EP	9EP	9EP	12EP	12EP	8EP	10EP	14EP	14EP	12EP	12EP	17EP	20EP	14EP	17EP	20EP	22EP	147
146	3CP	5CP	7DP	9DP	9DP	9DP	12DP	12EP	8EP	10EP	14EP	14EP	12EP	12EP	17EP	20EP	14EP	17EP	20EP	22EP	146
145	3BP	5CP	7CP	9DP	9DP	9DP	12DP	12EP	8DP	10EP	14EP	14EP	12EP	12EP	17EP	20EP	14EP	17EP	20EP	22EP	145
144	3BP	5CP	7CP	9DP	9DP	9DP	12DP	12EP	8DP	10EP	14EP	14EP	12EP	12EP	17EP	19EP	14EP	17EP	20EP	22EP	144
143	3BP	5BP	7CP	9DP	9DP	9DP	12DP	12EP	8DP	10DP	14DP	14EP	12EP	12EP	17EP	19EP	14EP	17EP	20EP	21EP	143
142	3BP	5BP	7CP	9DP	9DP	9DP	12DP	12DP	8DP	10DP	13DP	13EP	12EP	12EP	16EP	19EP	13EP	16EP	19EP	21EP	142
141	3BP	5BP	7CP	9DP	9DP	9DP	11DP	11DP	8DP	10DP	13DP	13EP	12EP	12EP	16EP	19EP	13EP	16EP	19EP	21EP	141
140	3BP	5BP	7CP	9CP	9DP	9DP	11DP	11DP	8DP	10DP	13DP	13EP	12EP	12EP	16EP	19EP	13EP	16EP	19EP	21EP	140
139	3AP	5BP	7CP	9CP	9CP	9DP	11DP	11DP	8CP	9DP	13DP	13DP	12EP	12EP	16EP	19EP	13EP	16EP	19EP	21EP	139
138	3AP	5BP	7CP	8CP	9CP	9CP	11CP	11DP	8CP	9DP	13DP	13DP	12DP	12EP	16EP	18EP	13EP	16EP	19EP	21EP	138
137	3AP	5BP	7BP	8CP	8CP	8CP	11CP	11DP	8CP	9DP	13DP	13DP	11DP	11EP	16EP	18EP	13EP	16EP	19EP	20EP	137
136	3AP	5AP	7BP	8CP	8CP	8CP	11CP	11DP	8CP	9DP	13DP	13DP	11DP	11EP	16EP	18EP	13EP	16EP	19EP	20EP	136
135	3AP	5AP	7BP	8CP	8CP	8CP	11CP	11DP	8CP	9CP	13DP	12DP	11DP	11DP	16EP	18EP	13EP	16EP	19EP	20EP	135
134	3AS	5AP	6BP	8CP	8CP	8CP	11CP	11DP	7CP	9CP	12DP	12DP	11DP	11DP	15EP	18EP	12EP	15EP	18EP	20EP	134
133	3AP	5AP	6BP	8CP	8CP	8CP	11CP	10DP	7CP	9CP	12CP	12DP	11DP	11DP	15DP	18EP	12EP	15EP	18EP	20EP	133
132	3AS	5AP	6BP	8CP	8CP	8CP	10CP	10DP	7CP	9CP	12CP	12DP	11DP	11DP	15DP	17EP	12EP	15EP	18EP	20EP	132
131	3AP	5AP	6BP	8BP	8BP	8CP	10CP	10DP	7CP	9CP	12CP	12DP	11DP	11DP	15DP	17EP	12EP	15EP	18EP	19EP	131
130	3AK	5AP	6BP	8BP	8BP	8CP	10CP	10CP	7CP	9CP	12CP	12DP	11DP	11DP	15DP	17DP	12EP	15EP	18EP	19EP	130
129	3	5AS	6BP	8BP	8BP	8BP	10CP	10CP	7CP	9CP	12CP	12DP	11DP	11DP	15DP	17DP	12DP	15EP	18EP	19EP	129
128	3	5AP	6AP	8BP	8BP	8BP	10CP	10CP	7CP	8CP	12CP	12DP	11DP	11DP	15DP	17DP	12DP	15EP	18EP	19EP	128
127	3	5AS	6AP	8BP	8BP	8BP	10CP	10CP	7CP	8CP	12CP	11DP	11DP	11DP	14DP	17DP	12DP	14EP	18EP	19EP	127
126	3	5AP	6AP	7BP	8BP	8BP	10CP	10CP	7BP	8CP	11CP	11CP	11CP	11DP	14DP	16DP	11DP	14DP	17EP	19EP	126
125	3	4AK	6AP	7BP	8BP	7BP	10BP	10CP	7BP	8CP	11CP	11CP	11CP	10DP	14DP	16DP	11DP	14DP	17EP	18EP	125
124	3	4	6AP	7BP	7BP	7BP	10BP	9CP	7BP	8CP	11CP	11CP	10CP	10DP	14DP	16DP	11DP	14DP	17EP	18EP	124
123	3	4	6AP	7BP	7BP	7BP	9BP	9CP	7BP	8CP	11CP	11CP	10CP	10DP	14DP	16DP	11DP	14DP	17EP	18EP	123
122	3	4	6AP	7BP	7AP	7BP	9BP	9CP	7BP	8CP	11CP	11CP	10CP	10DP	14DP	16DP	11DP	14DP	17EP	18EP	122
121	3	4	6AS	7AP	7AP	7BP	9BP	9CP	7BP	8BP	11CP	11CP	10CP	10DP	14DP	16DP	11DP	14DP	17EP	18EP	121
120	3	4	6AP	7AP	7AP	7BP	9BP	9CP	7BP	8BP	11CP	10CP	10CP	10DP	14DP	15DP	11DP	14DP	17EP	18EP	120
119	3	4	6AS	7AP	7AP	7BP	9BP	9CP	6BP	8BP	11CP	10CP	10CP	10DP	13DP	15DP	11DP	13DP	17EP	17EP	119
118	3	4	5AP	7AP	7AS	7AP	9BP	9CP	6BP	7BP	10CP	10CP	10CP	10DP	13DP	15DP	10DP	13DP	16EP	17EP	118
117	3	4	5AS	7AP	7AP	7AP	9BP	9BP	6BP	7BP	10BP	10CP	10CP	10DP	13DP	15DP	10DP	13DP	16EP	17EP	117
116	3	4	5AP	7AP	7AS	7AP	9BP	8BP	6BP	7BP	10BP	10CP	10CP	10CP	13DP	15DP	10DP	13DP	16DP	17DP	116
115	3	4	5AK	7AP	7AP	7AP	9BP	8BP	6BP	7BP	10BP	10CP	10CP	10CP	13CP	15DP	10DP	13DP	16DP	17DP	115
114	3	4	5	6AP	7AS	7AP	8AP	8BP	6BP	7BP	10BP	10CP	10CP	10CP	13CP	14DP	10DP	13DP	16DP	17DP	114
113	3	4	5	6AS	7AP	6AS	8AP	8BP	6BS	7BP	10BP	9CP	10CP	9CP	13CP	14DP	10DP	13DP	16DP	16DP	113
112	3	4	5	6AP	7AS	6AP	8AP	8BP	6AP	7BP	10BP	9CP	10CP	9CP	12CP	14DP	10DP	12DP	16DP	16DP	112
111	3	4	5	6AS	6AP	6AS	8AP	8BP	7AS	7BP	9BP	9CP	9CP	9CP	12CP	14DP	10DS	12DP	15DP	16DP	111
110	3	4	5	6AP	6AK	6AP	8AS	8BP	6AP	7BS	9BP	9CP	9CP	9CP	12CP	14DP	9CP	12DP	15DP	16DP	110
109	3	4	5	6AS	6	6AS	8AP	8BP	6AS	7BP	9BP	9BP	9BP	9CP	12CP	14CP	9CS	12DP	15DP	16DP	109
108	3	4	5	6AP	6	6AP	8AS	8BP	6AP	7BS	9BP	9BP	9BS	9CP	12CP	13CP	9CP	12DS	15DP	16DP	108
107	3	4	5	6AS	6	6AS	8AP	7BP	6AS	6BP	9BS	9BP	9BP	9CP	12CP	13CP	9CS	12DP	15DP	15DP	107
106	2	4	5	6AP	6	6AP	8AS	7BP	6AP	6AS	9BP	9BP	9BS	9CP	12CP	13CP	9CP	12CS	15DP	15DP	106
105	2	4	5	6AK	6	6AK	7AP	7BP	6AS	6AP	9BS	8BP	9BP	9CS	12CP	13CP	9CS	12CP	15DP	15DS	105
104	2	4	5	6	6	6	7AS	7AP	5AP	6AS	9BP	8BP	9BS	9CP	11CP	13CP	9CP	11CS	15DP	15DP	104
103	2	4	5	6	6	6	7AP	7AP	5AS	6AP	8AS	8BP	9BP	9CS	11CP	13CP	9CS	11CP	14DP	15DS	103
102	2	4	4	5	6	6	7AS	7AS	5AP	6AS	8AP	8BP	9BS	9CP	11CS	12CP	8CP	11CS	14DP	15DP	102
101	2	3	4	5	6	6	7AP	7AP	5AS	6AP	8AS	8BP	9BP	9CS	11CP	12CP	8CS	11CP	14DP	14DS	101
100	2	3	4	5	6	5	7AK	7AS	5AP	6AS	8AP	8BP	9BS	8CP	11BS	12CP	8CP	11CS	14DP	14DP	100
99	2	3	4	5	6	5	7	6AP	5AK	6AP	8AS	8BS	9BP	8CS	11BP	12CS	8CS	11CP	14DS	14DS	99
98	2	3	4	5	5	5	7	6AS	5	6AS	8AP	7BP	8BS	8CP	11BS	12CP	8CP	11CS	14DP	14DP	98
97	2	3	4	5	5	5	6	6AP	5	6AP	8AS	7BS	8BP	8BS	10BP	12BS	8CS	11CP	14DS	14DS	97
96	2	3	4	5	5	5	6	6AS	5	5AS	8AP	7BP	8BS	8BP	10BS	11BP	8BP	10CS	14DP	14DP	96
95	2	3	4	5	5	5	6	6AP	5	5AP	7AS	7BS	8BP	8BS	10BP	11BS	8BS	10BP	13DS	13DS	95
94	2	3	4	5	5	5	6	6AS	5	5AK	7AP	7BP	8BS	8BP	10BS	11BP	7BP	10BS	13DP	13DP	94
93	2	3	4	5	5	5	6	6AP	5	5	7AS	7AS	8AP	8BS	10BP	11BS	7BS	10BP	13CS	13CS	93
92	2	3	4	5	5	5	6	6AS	5	5	7AP	7AP	8AS	8BP	10BS	11BP	7BP	10BS	13CP	13CP	92
91	2	3	4	4	5	5	6	5AP	5	5	7AS	7AS	8AP	8BS	10BP	11BS	7BS	10BP	13CS	13CS	91
90	2	3	4	4	5	5	6	5AK	5	5	7AP	6AP	8AS	8BP	10BS	10BP	7BP	10BS	13CP	13CP	90
89	2	3	4	4	5	5	6	5	4	5	7AK	6AS	8AP	8BS	9BP	10BS	7AS	9BP	13CS	12CS	89
88	2	3	4	4	5	4	5	5	4	5	7	6AP	8AS	7BP	9BS	10BP	7AP	9BS	13CP	12CP	88
87	2	3	4	4	5	4	5	5	4	5	6	6AS	8AP	7BS	9BP	10BS	7AS	9BP	12CS	12CS	87
86	2	3	3	4	5	4	5	5	4	4	6	6AP	8AS	7BP	9BS	10BP	6AP	9AS	12CP	12CP	86
85	2	3	3	4	4	4	5	5	4	4	6	6AS	7AP	7BS	9BP	10BS	6AK	9AP	12CS	12CS	85
84	2	3	3	4	4	4	5	5	4	4	6	6AP	7AS	7BP	9BS	9BP	6	9AS	12CP	12BP	84
83	2	3	3	4	4	4	5	5	4	4	6	5AS	7AP	7BS	9AP	9BS	6	9AP	12CS	11BS	83
82	2	3	3	4	4	4	5	4	4	4	6	5AP	7AS	7AP	9AS	9BP	6	9AS	12CP	11BP	82
81	2	3	3	4	4	4	5	4	4	4	6	5AS	7AP	7AS	8AP	9BS	6	8AP	12CS	11BS	81
80	2	3	3	4	4	4	5	4	4	4	5	5AP	7	7AP	8AS	9AP	6	8AK	11BP	11BP	80
79	2	3	3	3	4	4	4	4	4	4	5	5AK	7	7AS	8AP	9AS	6	8	11BS	11BS	79
78	2	3	3	3	4	4	4	4	4	4	5	5	7	7AP	8AS	8AP	5	8	11BP	11AP	78
77	2	2	3	3	4	4	4	4	4	4	5	5	7	7AS	8AP	8AS	5	8	11BS	10AS	77
76	2	2	3	3	4	3	4	4	4	4	5	4	7	6AP	8AS	8AP	5	8	11BP	10AP	76
75	2	2	3	3	4	3	4	4	4	3	5	4	7	6	8AP	8AS	5	8	11BS	10AK	75
74	2	2	3	3	4	3	4	3	3	3	5	4	7	6	7AS	8AP	5	7	11BP	10	74
73	2	2	3	3	4	3	4	3	3	3	5	4	7	6	7AP	8AS	5	7	11BS	10	73
72	2	2	3	3	3	3	4	3	3	3	4	4	6	6	7AS	7AP	5	7	10BP	10	72
71	2	2	3	3	3	3	4	3	3	3	4	4	6	6	7AP	7AS	5	7	10AS	9	71
70	2	2	2	3	3	3	3	3	3	3	4	4	6	6	7	7AP	4	7	10AP	9	70
69	2	2	2	3	3	3	3	3	3	3	4	4	6	6	7	7AS	4	7	10AS	9	69
68	2	2	2	3	3	3	3	3	3	3	4	3	6	6	7	7AP	4	7	10AP	9	68
67	2	2	2	2	3	3	3	3	3	3	4	3	6	6	7	7AS	4	7	10AS	9	67
66	2	2	2	2	3	3	3	3	3	3	4	3	6	6	6	6AP	4	6	10AP	9	66
65	2	2	2	2	3	3	3	2	3	3	4	3	6	6	6	6	4	6	10AK	8	65
64	2	2	2	2	3	3	3	2	3	2	3	3	6	6	6	6	4	6	9	8	64
63	2	2	2	2	3	2	3	2	3	2	3	3	6	5	6	6	4	6	9	8	63
62	1	2	2	2	3	2	3	2	3	2	3	3	6	5	6	6	3	6	9	8	62
61	1	2	2	2	3	2	2	2	3	2	3	2	6	5	6	6	3	6	9	8	61
60	1	2	2	2	3	2	2	2	3	2	3	2	6	5	6	5	3	6	9	8	60
59	1	2	2	2	2	2	2	2	2	2	3	2	5	5	5	5	3	0	9	0	59
58	1	2	2	2	2	2	2	2	2	2	3	2	5	5	5	5	3	0	9	0	58
57	1	2	2	2	2	2	2	1	2	2	3	2	5	5	5	5	3	0	9	0	57
56	1	2	2	2	2	2	2	1	2	2	2	2	5	5	5	5	3	0	8	0	56
55	1	2	2	1	2	2	2	1	2	2	2	2	5	5	5	5	3	0	8	0	55
54	1	2	1	1	2	2	2	1	2	0	2	0	5	5	5	4	0	0	8	0	54
53	1	1	1	1	2	2	2	1	2	0	2	0	5	5	5	4	0	0	8	0	53
52	1	1	1	1	2	2	1	1	2	0	2	0	5	5	5	4	0	0	8	0	52
51	1	1	1	1	2	1	1	1	2	0	2	0	5	4	4	4	0	0	8	0	51
50	1	1	1	1	2	1	1	1	2	0	2	0	5	4	4	4	0	0	8	0	50
49	1	1	1	1	2	1	1	0	2	0	0	0	5	4	4	0	0	0	0	0	49
48	1	1	1	1	2	1	1	0	2	0	0	0	5	4	4	0	0	0	0	0	48
47	1	1	1	1	2	1	1	0	2	0	0	0	5	4	4	0	0	0	0	0	47
45-46	1	1	1	1	1	1	1	0	2	0	0	0	4	4	4	0	0	0	0	0	45-46
40-44	1	1	1	0	1	1	0	0	0	0	0	0	4	4	0	0	0	0	0	0	40-44
35-39	1	1	0	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	35-39
30-34	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30-34
21-29	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21-29
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	



8.3.7 BROADSWORD ATTACK TABLE

Weapon Type: One-handed Slashing

Length: 2-3.5 feet

Weight: 3-5 pounds

Fumble Range: 01-03 UM

Range (OB Mod): —



	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
150	8EK	10EK	12EK	14EK	15EK	15EK	18EK	18ES	16EK	18EK	22ES	22ES	20EK	20ES	25ES	28ES	22ES	25ES	28ES	30ES	150
149	8DK	10DK	12EK	14ES	15EK	15EK	18EK	18EK	16EP	18EK	18EK	22ES	22ES	20EP	25ES	28ES	22ES	25ES	28ES	30ES	149
148	8DK	10DK	12EK	14EK	15EK	15EK	18EK	18ES	16EK	18EK	22ES	22ES	20EK	20ES	25ES	28ES	22ES	25ES	28ES	30ES	148
147	8CK	10CK	12DK	14ES	15EK	15EK	18EK	18EP	16EK	18EK	22ES	22ES	20EP	20EP	25ES	28ES	22ES	25ES	28ES	30ES	147
146	8CK	10CK	12DK	14EK	15DK	15DK	18EK	18ES	16EK	18EK	22ES	21ES	20EK	20ES	25ES	27ES	21ES	24ES	27ES	29ES	146
145	8CK	10CK	12DS	14ES	15DK	15DK	18DK	18EP	16EK	17EK	21ES	21ES	20EP	20EP	24EP	27ES	21ES	24ES	27ES	29ES	145
144	8CK	10CK	12DP	14EP	15DK	15DK	17DS	17EK	16EK	17EK	21ES	21ES	19EK	19EK	24ES	27ES	21ES	24ES	27ES	29ES	144
143	8CK	10CK	12DK	13DK	15DK	14DK	17DP	17ES	15DK	17EK	21ES	21ES	19EP	19ES	24EP	26ES	21ES	24ES	27ES	28ES	143
142	8BK	10CK	12CS	13DS	14DK	14DK	17DK	17EP	15DK	17EK	21ES	20ES	19EK	19EP	24ES	26ES	20ES	23ES	26ES	28ES	142
141	8BK	10BK	11CP	13DP	14DK	14DK	17DS	17DK	15DK	17EK	20ES	20EP	19ES	19EK	23EP	26ES	20ES	23ES	26ES	28ES	141
140	8BK	10BK	11CK	13DK	14DK	14DK	17DP	17DS	15DK	16DK	20DS	20ES	19EP	19ES	23ES	26ES	20ES	23ES	26ES	27ES	140
139	8BK	10BK	11CS	13DS	14CK	14DK	16DK	16DP	15DK	16DK	20DP	20EP	19DK	19EP	23EP	25ES	20ES	22ES	26ES	27ES	139
138	8BK	9BK	11CP	13CP	14CK	14CK	16DS	16DK	15DK	16DK	20DS	19ES	18DS	18EK	23ES	25ES	19ES	22ES	25ES	27ES	138
137	8BK	9BK	11CK	13DK	14CK	14CK	16DP	16DS	14DK	16DK	19DP	19EP	18DP	18ES	22EP	25ES	19ES	22ES	25ES	26ES	137
136	8BK	9BK	11CP	12DS	14CK	13CK	16CK	16DP	14DK	16DK	19DS	19DS	18DK	18DP	22ES	24ES	19ES	22ES	25ES	26ES	136
135	8AK	9BK	11CP	12DP	13CK	13CK	16CS	16DK	14CK	15DK	19DP	19DP	18DS	18DK	22EP	24ES	19ES	21ES	25ES	26ES	135
134	7AK	9BK	11BK	12DK	13CK	13CK	15CP	15DS	14CK	15DS	19DS	18DS	18DP	18DS	22DS	24ES	18ES	21ES	24ES	25ES	134
133	7AK	9AP	10BS	12CS	13CK	13CP	15CK	15DP	14CK	15DP	18DS	18DP	18DK	17DP	21DP	24ES	18ES	21ES	24ES	25ES	133
132	7AK	9AK	10BP	12CP	13BK	13CK	15CS	15DK	14CK	15DK	18DP	18DS	17DS	17DK	21DS	23ES	18DS	20ES	24ES	25ES	132
131	7AK	9AP	10BK	12CK	13BK	13CP	15CP	15DS	13CK	15DS	18DK	18DP	17DP	17DS	21DP	23DS	17DS	20ES	24ES	24ES	131
130	7AK	9AK	10BS	12CS	13BK	13BK	15CK	15DP	13CK	14DP	18DS	17DS	17DK	17DP	21DK	23DS	17DS	20ES	23ES	24ES	130
129	7AP	9AS	10BP	11CP	13BK	12BP	15CS	14DK	13CK	14DK	17DP	17DP	17DS	17DK	20DS	22DS	17DS	20DS	23ES	24ES	129
128	7AK	9AP	10BK	11CK	12BK	12BK	14CP	14CS	13CK	14CS	17DK	17DS	17CP	17DS	20DP	22DS	17DK	19DS	23ES	23ES	128
127	7AS	8AK	10BS	11CS	12BK	12BP	14CK	14CP	13CS	14CP	17DS	17DP	17CK	16DP	20DK	22DS	16DS	19DS	23EK	23EK	127
126	7AP	8AS	10BP	11CP	12BK	12BK	14CS	14CK	13CP	13CK	17CP	16DS	16CS	16DK	20DS	22DS	16DP	19DS	22ES	23ES	126
125	7AK	8AP	10BK	11CK	12BP	12BP	14CP	14CS	12CK	13CS	16CK	16DP	16CP	16DS	19DP	21DS	16DK	18DS	22EK	22ES	125
124	7	8AK	9AS	11BS	12BK	12BK	14CK	13CP	12CS	13CP	16CS	16DS	16CK	16DP	19DK	21DS	16DS	18DS	22ES	22ES	124
123	7	8AS	9AP	11BP	12AP	11BS	13CS	13CK	12CP	13CK	16CP	15DP	16CS	16DK	19DS	21DS	15DP	18DS	21EK	22ES	123
122	7	8AP	9AK	10BK	12AK	11BP	13BP	13CS	12CK	13CS	15CK	15DS	16CP	16DS	19DP	20DS	15DK	18DP	21ES	22ES	122
121	7	8AK	9AS	10BS	11AS	11BK	13BK	13CP	12BS	12CP	15CS	15DP	16CK	15DP	18DK	20DS	15DS	17DS	21EK	21DS	121
120	7	8AS	9AP	10BP	11AP	11BS	13BS	13CK	12BP	12CK	15CP	15DK	15CS	15DK	18DS	20DS	15DP	17DP	21DS	21DS	120
119	6	8	9AK	10BK	11AK	11AP	13BP	12CS	11BK	12CS	15CK	14CS	15CP	15CS	18DP	19DS	14DK	17DS	20DP	20DS	119
118	6	8	9AS	10BS	11AS	11AK	12BK	12CP	11BS	12CP	15CS	14CP	15CK	15CP	18DK	19DK	14DS	16DP	20DK	20DS	118
117	6	8	9AP	10BP	11AP	11AS	12BS	12CK	11BP	12CK	14CP	14CK	15CS	15CK	18CS	19DS	14DP	16DK	20DS	20DS	117
116	6	7	8AK	10BK	11AK	10AP	12BP	12CS	11BK	11CS	14CK	14CS	15CP	14CS	17CP	19DP	14CK	16DS	20DP	19DP	116
115	6	7	8AS	9BS	11AS	10AK	12BK	12BP	11BS	11CP	14CS	13CP	15CK	14CP	17CK	18DK	13CS	16DP	19DK	19DS	115
114	6	7	8AP	9AP	10AP	10AS	12BS	11BK	11BP	11BK	14CP	13CK	14CS	14CK	17CS	18DS	13CP	15DK	19DS	19DP	114
113	6	7	8AK	9AK	10AK	10AP	12BP	11BS	10BK	11BS	13CK	13CS	14CP	14CS	17CP	18DP	13CK	15DS	19DP	19DS	113
112	6	7	8AS	9AS	10AS	10AK	11BK	11BP	10BS	11BP	13CS	13CP	14BK	14CP	16CK	17DK	12CS	15CP	19DK	18DP	112
111	6	7	8AP	9AP	10AP	10AS	11AS	11BK	10BP	10BK	13CP	12CK	14BS	14CK	16CS	17CS	12CP	15CK	18DS	18DS	111
110	6	7	8AK	9AK	10AK	10AP	11AP	11BS	10BK	10BS	13CK	12CS	14BP	13CS	16CP	17CP	12CK	14CS	18DP	18DP	110
109	6	7	8	9AS	10	9AK	11AK	10BP	10BS	10BP	12BS	12CP	14BK	13CP	16CK	17CK	12CS	14CP	18DK	17DS	109
108	6	7	8	8AP	10	9AS	11AS	10BK	10BP	10BK	10BP	12CK	13BS	13CK	15CS	16CS	11CP	14CK	18DS	17DP	108
107	6	7	7	8AK	9	9AP	10AP	10BS	9AK	9BS	12BK	11CS	13BP	13CS	15CP	16CP	11CK	13CS	17DP	17DS	107
106	6	7	7	8AS	9	9AK	10AK	10BP	9AS	9BP	12BS	11CP	13BK	13CP	15CK	16CK	11CS	13CP	17DK	16DP	106
105	6	6	7	8AP	9	9AS	10AS	10BK	9AP	9BK	12BP	11CK	13BS	13CK	15CS	15CS	11CP	13CK	17DS	16DS	105
104	5	6	7	8AK	9	9	10AP	9BS	9AK	9BS	11BK	11CS	13BP	12CS	14CP	15CP	10BK	13CS	17DP	16DP	104
103	5	6	7	8AS	9	9	10AK	9BP	9AS	9BP	11BS	10CP	13BK	12CP	14CK	15CK	10BS	12CP	16DK	15DK	103
102	5	6	7	7AP	9	8	9AS	9AK	9AP	8BK	11BP	10CK	12BS	12BK	14BS	15CS	10BP	12BK	16DS	15DS	102
101	5	6	7	7AK	9	8	9AP	9AS	8AK	8BS	11BK	10BS	12BP	12BS	14BP	14CP	10BK	12BS	16DP	15CP	101
100	5	6	7	7AS	8	8	9AK	9AP	8AS	8AP	10BS	10BP	12BK	12BP	13BK	14CK	9BS	11BP	16CK	14CK	100
99	5	6	6	7	8	8	9	8AK	8AP	8AK	10BP	9BK	12BS	11BK	13BS	14BS	9BP	11BK	15CS	14CS	99
98	5	6	6	7	8	8	9	8AS	8AK	8AS	10BK	9BS	12BP	11BS	13BP	13BP	9AK	11BS	15CP	14CP	98
97	5	6	6	7	8	8	9	8AP	8AS	7AP	10BS	9BP	12AK	11BP	13BK	13BK	9AS	11BP	15CK	13CK	97
96	5	6	6	7	8	7	8	8AK	8AP	7AK	9BP	8BK	11AS	11BK	12BS	13BS	8AP	10BK	14CS	13CS	96
95	5	6	6	6	8	7	8	8AS	7AK	7AS	9AS	8BS	11AP	12BS	12BP	12BP	8AK	10BS	14CP	12CP	95
94	5	5	6	6	8	7	8	7AP	7	7AP	9AS	8BP	11AK	11BP	12BK	12BK	8	10AP	14CK	12CK	94
93	5	5	6	6	7	7	8	7AK	7	7AK	9AP	8BK	11AS	10BK	12BS	12BS	7	9AK	14CS	12BS	93
92	5	5	6	6	7	7	8	7AS	7	6AS	8AK	7BS	11AP	10BS	11BP	12BP	7	9AS	13CP	12BP	92
91	5	5	5	6	7	7	7	7AP	7	6AP	8AS	7BP	11AK	10BP	11BP	11BK	7	9AP	13CK	11BK	91
90	5	5	5	6	7	7	7	7AK	7	6AK	8AP	7BK	10AS	10BK	11BS	11BS	7	9AK	13CS	11BS	90
89	4	5	5	6	7	6	7	6	6	6	8AK	7BS	10AP	10BS	11BP	11BP	6	8	13CP	11BP	89
88	4	5	5	5	7	6	7	6	6	5	7AS	6BP	10AK	10AP	11BK	11BK	6	8	12BK	10AK	88
87	4	5	5	5	7	6	7	6	6	5	7AP	6BK	10AS	9AK	10BS	10BS	6	8	12BS	10AS	87
86	4	5	5	5	6	6	6	6	6	5	7AK	6BS	10AP	9AS	10AP	10BP	6	7	12BP	10AP	86
85	4	5	5	5	6	6	6	6	6	5	7AS	6AP	10AK	9AP	10AK	10BK	5	7	12BK	9AK	85
84	4	5	5	5	6	6	6	5	6	5	6	5AK	9	9AK	10AS	9BS	5	7	11BS	9	84
83	4	4	5	5	6	6	6	5	5	4	6	5AS	9	9AS	9AP	9AP	5	7	11BP	9	83
82	4	4	4	5	6	5	6	5	5	4	6	5AP	9	8AP	9AK	9AK	5	6	11BK	8	82
81	4	4	4	4	6	5	6	5	5	4	6	5AK	9	8AK	9AS	8AS	4	6	11BS	8	81
80	4	4	4	4	6	5	5	5	5	4	5	4AS	9	8AS	9AP	8AP	4	6	10AP	8	80
79	4	4	4	4	5	5	5	4	5	4	5	4AP	9	8	8AK	8AK	4	0	10AK	0	79
78	4	4	4	4	5	5	5	4	5	3	5	4AK	8	8	8AS	8AS	4	0	10AS	0	78
77	4	4	4	4	5	5	5	4	4	3	5	4AS	8	8	8AP	7AP	3	0	10AP	0	77
76	4	4	4	4	5	5	5	4	4	3	4	3AP	8	7	8AK	7AK	3	0	9AK	0	76
75	4	4	4	4	5	4	4	4	4	3	4	3AK	8	7	7AS	7AS	3	0	9AS	0	75
74	3	4	3	3	5	4	4	3	4	3	4	3	8	7	7	6AP	0	0	9	0	74
73	3	4	3	3	5	4	4	3	4	2	4	3	8	7	7	6AK	0	0	9	0	73
72	3	3	3	3	4	4	4	3	4	2	3	2	7	7	7	6AS	0	0	8	0	72
71	3	3	3	3	4	4	4	3	3	2	3	2	7	7	6	6AP	0	0	8	0	71
70	3	3	3	3	4	4	3	3	3	2	3	2	7	6	6	5AK	0	0	8	0	70
69	3	3	3	3	4	3	3	2	3	0	3	0	7	6	6	5	0	0	0	0	69
68	3	3	3	3	4	3	3	2	3	0	2	0	7	6	6	5	0	0	0	0	68
67	3	3	3	2	4	3	3	2	3	0	2	0	7	6	5	4	0	0	0	0	67
66	3	3	3	2	4	3	3	2	3	0	2	0	6	6	5	4	0	0	0	0	66
65	3	3	2	2	3	3	3	2	2	0	2	0	6	5	5	4	0	0	0	0	65
64	3	3	2	2	3	3	2	1	2	0	0	0	6	5	5	0	0	0	0	0	64
63	3	3	2	2	3	3	2	1	2	0	0	0	6	5	4	0	0	0	0	0	63
62	3	3	2	2	3	2	2	1	2	0	0	0	6	5	4	0	0	0	0	0	62
61	3	2	2	2	3	2	2	1	2	0	0	0	6	5	4	0	0	0	0	0	61
60	3	2	2	1	3	2	2	1	2	0	0	0	5	5	4	0	0	0	0	0	60
59	2	2	2	1	3	2	1	0	0	0	0	0	5	4	0	0	0	0	0	0	59
58	2	2	2	1	2	2	1	0	0	0	0	0	5	4	0	0	0	0	0	0	58
57	2	2	1	1	2	2	1	0	0	0	0	0	5	4	0	0	0	0	0	0	57
56	2	2	1	1	2	2	1	0	0	0	0	0	5	4	0	0	0	0	0	0	56
55	2	2	1	1	2	1	1	0	0	0	0	0	5	4	0	0	0	0	0	0	55
54	2	2	1	0	2	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	54
53	2	2	1	0	2	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	53
52	2	2	1	0	2	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	52
51	2	2	1	0	1	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	51
50	2	1	1	0	1	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	50
49	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
48	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
47	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
46	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
45	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
44	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
40-43	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40-43
30-39	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30-39
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	

	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
150	5CK	7DK	9EK	11EK	10EK	10EK	13EK	13ES	11EK	13EK	17ES	17ES	16EK	16ES	21ES	24ES	18ES	21ES	24ES	26ES	150
149	5CK	7CK	9EK	11ES	10EK	10EK	13EK	13EP	11EK	13EK	17ES	17ES	16EP	16EP	21ES	24ES	18ES	21ES	24ES	26ES	149
148	5CK	7CK	9DK	11EK	10DK	10DK	13EK	13ES	11EK	13EK	17ES	17ES	16EK	16ES	21ES	24ES	18ES	21ES	24ES	26ES	148
147	5BK	7CK	9DK	11ES	10DK	10DK	13DK	13EP	11EK	13EK	17ES	17ES	16EP	16EP	21ES	24ES	18ES	21ES	24ES	26ES	147
146	5BK	7CK	9DS	11DK	10DK	10DK	13DK	13EK	11EK	13EK	17ES	17ES	16EK	16ES	21ES	24ES	18ES	21ES	24ES	26ES	146
145	5BK	7BK	9CP	11DS	10DK	10DK	13DS	13ES	11DK	13EK	17ES	17ES	16EP	16EP	21EP	23ES	18ES	21ES	24ES	25ES	145
144	5BK	7BK	9CK	11DP	10CK	10DK	13DP	13DP	11DK	13EK	16ES	16ES	16EK	16EK	20ES	23ES	17ES	20ES	23ES	25ES	144
143	5AK	7BK	9CS	11DK	10CK	10CK	13DK	12DK	11DK	13EK	16ES	16ES	16EP	16ES	20EP	23ES	17ES	20ES	23ES	25ES	143
142	5AK	7BK	9CP	11DS	10CK	10CK	12CS	12DS	11DK	12DK	16DS	16EP	16EK	15EP	20ES	23ES	17ES	20ES	23ES	25ES	142
141	5AK	7BK	9CK	10DP	10CK	10CK	12CP	12DP	11DK	12DK	16DS	16ES	15ES	15EK	20EP	22ES	17ES	20ES	23ES	24ES	141
140	5AK	7BP	9CS	10CK	10CK	10CK	12CK	12DK	10DK	12DK	16DP	16EP	15DP	15ES	20ES	22ES	17ES	20ES	23ES	24ES	140
139	5AK	7AK	9BP	10CS	9CK	9CK	12CS	12DS	10CK	12DK	16DS	15ES	15DK	15EP	19EP	22ES	16ES	19ES	22ES	24ES	139
138	5AK	7AP	8BK	10CP	9BK	9CK	12CP	12DP	10CK	12DK	15DP	15DP	15DS	15DK	19ES	22ES	16ES	19ES	22ES	24ES	138
137	5AP	7AK	8BS	10CK	9BK	9CK	12CK	12DK	10CK	12DK	15DS	15DS	15DP	15DS	19EP	22ES	16ES	19ES	22ES	23ES	137
136	5AK	7AS	8BP	10CS	9BK	9BP	12CS	11CS	10CK	12DK	15DP	15DP	15DK	15DP	19DS	21ES	16ES	19ES	22ES	23ES	136
135	5AS	7AP	8BK	10CP	9BK	9BK	11CP	11CP	10CK	11DS	15DK	15DS	15DS	15DK	19DP	21ES	16ES	19ES	22ES	23ES	135
134	5	6AK	8BS	10CK	9BK	9BP	11CK	11CK	10CK	11DP	15DS	15DP	15DP	14DS	19DS	21DS	16DS	18ES	22ES	23ES	134
133	5	6AS	8BP	10CS	9BK	9BK	11CS	11CS	10CK	11CK	15DP	14DS	14DK	14DP	18DP	21DS	15DS	18ES	21ES	23ES	133
132	5	6AP	8BK	9BP	9BK	9BP	11CP	11CP	10CK	11CS	14DK	14DP	14DS	14DK	18DS	20DS	15DS	18ES	21ES	22ES	132
131	5	6AK	8AS	9BK	9AK	9BK	11BK	11CK	10CK	11CP	14CS	14DS	14DP	14DS	18DP	20DS	15DS	18DS	21ES	22ES	131
130	5	6AS	8AP	9BS	9AP	9BS	11BS	11CS	9CK	11CK	14CP	14DP	14CK	14DP	18DK	20DS	15DS	18DS	21ES	22ES	130
129	5	6	8AK	9BP	9AK	8BP	11BP	10CP	9CS	11CS	14CK	14DS	14CS	14DK	18DS	20DS	15DS	17DS	21ES	22ES	129
128	5	6	8AS	9BK	8AS	8BK	11BK	10CK	9CP	10CP	14CS	13DP	14CP	14DS	17DP	20DS	14DS	17DS	20ES	21ES	128
127	5	6	7AP	9BS	8AP	8AS	10BS	10CS	9CK	10CK	13CP	13DS	14CK	14DP	17DK	19DS	14DS	17DS	20ES	21ES	127
126	5	6	7AK	9BP	8AK	8AP	10BP	10CP	9BS	10CS	13CK	13DP	14CS	13DK	17DS	19DS	14DK	17DS	20EK	21ES	126
125	4	6	7AS	9BK	8AS	8AK	10BK	10BK	9BP	10CP	13CS	13DS	14CP	13DS	17DP	19DS	14DS	17DS	20ES	21ES	125
124	4	6	7AP	9BS	8AP	8AS	10BS	10BS	9BK	10CK	13CP	13CP	13CK	13DP	17DK	19DS	14DP	16DS	20EK	20ES	124
123	4	6	7AK	8AP	8AK	8AP	10BP	10BP	9BS	10CS	13CK	12CK	13CS	13CK	17DS	18DS	13DK	16DS	19ES	20DS	123
122	4	6	7AS	8AK	8AS	8AK	10AK	9BK	9BP	10CP	13CS	12CS	13CP	13CS	16DP	18DS	13DS	16DS	19DK	20DS	122
121	4	6	7AP	8AS	8AP	8AS	10AS	9BS	8BK	9CK	12CP	12CP	13CK	13CP	16CK	18DS	13DP	16DS	19DS	20DS	121
120	4	6	7AK	8AP	8AK	8AP	9AP	9BP	8BS	9CS	12CK	12CK	13CS	13CK	16CS	18DS	13CK	16DS	19DK	19DS	120
119	4	6	7	8AK	8	7AK	9AK	9BK	8BP	9BP	12CS	12CS	13CP	13CS	16CP	18DS	13CS	15DS	19DS	19DS	119
118	4	5	7	8AS	7	7AS	9AS	9BS	8BK	9BK	12CP	12CP	13CK	12CP	16CK	17DK	13CP	15DP	19DK	19DS	118
117	4	5	7	8AP	7	7AP	9AP	9BP	8BS	9BS	12CK	11CK	13CS	12CK	15CS	17CS	12CK	15DS	18DS	19DS	117
116	4	5	6	8AK	7	7AK	9AK	9BK	8BP	9BP	12CS	11CS	12CP	12CS	15CP	17CP	12CS	15DP	18DP	19DS	116
115	4	5	6	7AS	7	7AS	9AS	8BS	8BK	9BK	11BP	11CP	12CK	12CP	15CK	17CK	12CP	15CS	18DK	18DS	115
114	4	5	6	7AP	7	7	9AP	8BP	8BS	8BS	11BK	11CK	12BS	12CK	15CS	16CS	12CK	14CP	18DS	18DP	114
113	4	5	6	7AK	7	7	8AK	8AK	8AP	8BP	11BS	11CS	12BP	12CS	15CP	16CP	12CS	14CK	18DP	18DS	113
112	4	5	6	7AS	7	7	8AS	8AS	8AK	8BK	11BP	10CP	12BK	12CP	15CK	16CK	11CP	14CS	17DK	18DP	112
111	4	5	6	7AP	7	7	8AP	8AP	7AS	8BS	11BK	10CK	12BS	12CK	15CS	16CS	11CK	14CP	17DS	17DS	111
110	4	5	6	7AK	7	7	8AK	8AK	7AP	8BP	10BS	10CS	12BP	11CS	14CP	16CP	11CS	14CK	17DP	17DP	110
109	4	5	6	7	7	6	8	8AS	7AK	8BK	10BP	10CP	12BK	11CP	14CK	15CK	11CP	13CS	17DK	17DS	109
108	4	5	6	7	7	6	8	7AP	7AS	8BS	10BK	10CK	11BS	11CK	14CS	15CS	11CK	13CP	17DS	17DP	108
107	4	5	6	7	6	6	8	7AK	7AP	7BP	10BS	9BS	11BP	11CS	14CP	15CP	10CS	13CK	16DP	16DS	107
106	4	5	6	6	6	6	8	7AS	7AK	7BK	10BP	9BP	11BK	11CP	13CK	15CK	10BP	13CS	16DK	16DP	106
105	4	5	5	6	6	6	7	7AP	7AS	7AS	10BK	9BK	11BS	11BK	13BS	14CS	10BK	13CP	16DS	16CS	105
104	4	5	5	6	6	6	7	7AK	7AP	7AP	9BS	9BS	11BP	11BS	13BP	14BP	10BS	12CK	16DP	16CP	104
103	4	5	5	6	6	6	7	7AS	7AK	7AK	9BP	9BP	11BK	11BP	13BK	14BK	10BP	12BS	16CK	15CS	103
102	4	4	5	6	6	6	7	7AP	6AS	7AS	9AK	9BK	11BS	10BK	13BS	14BS	10BK	12BP	16CS	15CP	102
101	3	4	5	6	6	6	7	6AK	6AP	7AP	9AS	8BS	11BP	10BS	13BP	14BP	9BS	12BK	15CP	15CK	101
100	3	4	5	6	6	6	7	6AS	6AK	7AK	9AP	8BP	11BK	10BP	12BK	13BK	9BP	12BS	15CK	15CS	100
99	3	4	5	6	6	5	7	6	6	6AS	9AK	8BK	10BS	10BK	12BS	13BS	9BK	11BP	15CS	15CP	99
98	3	4	5	6	6	5	6	6	6	6AP	8AS	8BS	10AP	10BS	12BP	13BP	9AS	11BK	15CP	14CK	98
97	3	4	5	5	5	5	6	6	6	6AK	8AP	8BP	10AK	10BP	12BK	13BK	9AP	11BS	15CK	14CS	97
96	3	4	5	5	5	5	6	6	6	6AS	8AK	7BK	10AS	10BK	12BS	12BS	8AK	11BP	14CS	14CP	96
95	3	4	5	5	5	5	6	6	6	6AP	8AS	7BS	10AP	10BS	11BP	12BP	8AS	11BK	14CP	14BK	95
94	3	4	5	5	5	5	6	5	6	6	8AP	7BP	10AK	9BP	11BK	12BK	8AP	10BS	14CK	13BS	94
93	3	4	4	5	5	5	6	5	6	6	7AK	7BK	10AS	9BK	11BS	12BS	8AK	10AP	14CS	13BP	93
92	3	4	4	5	5	5	6	5	5	5	7AS	7AS	10AP	9BS	11BP	12BP	8AS	10AK	14CP	13BK	92
91	3	4	4	5	5	5	6	5	5	5	7AP	7AP	9AK	9BP	11BK	11BK	8AP	10AS	13CK	13BS	91
90	3	4	4	5	5	5	5	5	5	5	7AK	6AK	9AS	9AK	11BS	11BS	7AK	10AP	13CS	12BP	90
89	3	4	4	5	5	4	5	5	5	5	7	6AS	9AP	9AS	10BP	11BP	7	9AK	13BP	12BK	89
88	3	4	4	4	5	4	5	5	5	5	7	6AP	9AK	9AP	10AK	11BK	7	9AS	13BK	12BS	88
87	3	4	4	4	5	4	5	4	5	5	6	6AK	9AS	9AK	10AS	10AS	7	9AP	13BS	12AP	87
86	3	3	4	4	4	4	5	4	5	5	6	6AS	9AP	8AS	10AP	10AP	7	9AK	13BP	11AK	86
85	3	3	4	4	4	4	5	4	5	4	6	5AP	9AK	8AP	10AK	10AK	6	9AS	12BK	11AS	85
84	3	3	4	4	4	4	5	4	5	4	6	5AK	9	8AK	9AS	10AS	6	8	12BS	11AP	84
83	3	3	4	4	4	4	4	4	5	4	6	5AS	9	8AS	9AP	10AP	6	8	12BP	11AK	83
82	3	3	3	4	4	4	4	4	4	4	6	5AP	8	8AP	9AK	9AK	6	8	12BK	11AS	82
81	3	3	3	4	4	4	4	4	4	4	5	5AK	8	8AK	9AS	9AS	6	8	12BS	10AP	81
80	3	3	3	3	4	4	4	3	4	4	5	4AS	8	8AS	9AP	9AP	5	8	11BP	10AK	80
79	3	3	3	3	4	3	4	3	4	4	5	4	8	8	9AK	9AK	5	7	11BK	10	79
78	3	3	3	3	4	3	4	3	4	3	5	4	8	7	8AS	8AS	5	7	11AS	10	78
77	2	3	3	3	4	3	4	3	4	3	5	4	8	7	8AP	8AP	5	7	11AP	9	77
76	2	3	3	3	4	3	3	3	4	3	4	4	8	7	8AK	8AK	5	7	11AK	9	76
75	2	3	3	3	3	3	3	3	4	3	4	4	8	7	8AS	8AS	5	7	10AS	9	75
74	2	3	3	3	3	3	3	3	4	3	4	3	7	7	8	8AP	4	6	10AP	9	74
73	2	3	3	3	3	3	3	2	3	3	4	3	7	7	7	7AK	4	6	10AK	8	73
72	2	3	3	3	3	3	3	2	3	3	4	3	7	7	7	7AS	4	6	10AS	8	72
71	2	3	2	2	3	3	3	2	3	2	4	3	7	7	7	7AP	4	6	10AP	8	71
70	2	2	2	2	3	3	3	2	3	2	3	3	7	6	7	7AK	4	6	10AK	8	70
69	2	2	2	2	3	2	3	2	3	2	3	2	7	6	7	6	3	0	9	0	69
68	2	2	2	2	3	2	2	2	3	2	3	2	7	6	7	6	3	0	9	0	68
67	2	2	2	2	3	2	2	2	3	2	3	2	7	6	6	6	3	0	9	0	67
66	2	2	2	2	3	2	2	1	3	2	3	2	6	6	6	6	3	0	9	0	66
65	2	2	2	2	2	2	2	1	3	2	3	2	6	6	6	6	3	0	9	0	65
64	2	2	2	2	2	2	2	1	3	0	2	0	6	6	6	5	0	0	8	0	64
63	2	2	2	2	2	2	2	1	2	0	2	0	6	6	6	5	0	0	8	0	63
62	2	2	2	1	2	2	2	1	2	0	2	0	6	5	5	5	0	0	8	0	62
61	2	2	2	1	2	2	1	1	2	0	2	0	6	5	5	5	0	0	8	0	61
60	2	2	1	1	2	2	1	1	2	0	2	0	6	5	5	4	0	0	8	0	60
59	2	2	1	1	2	1	1	0	2	0	0	0	6	5	5	4	0	0	0	0	59
58	2	2	1	1	2	1	1	0	2	0	0	0	6	5	5	4	0	0	0	0	58
57	2	2	1	1	2	1	1	0	2	0	0	0	5	5	5	4	0	0	0	0	57
56	2	2	1	1	2	1	1	0	2	0	0	0	5	5	4	0	0	0	0	0	56
55	2	2	1	1	2	1	1	0	2	0	0	0	5	5	4	0	0	0	0	0	55
54	2	1	1	0	1	1	0	0	0	0	0	0	5	4	4	0	0	0	0	0	54
53	1	1	1	0	1	1	0	0	0	0	0	0	5	4	4	0	0	0	0	0	53
52	1	1	1	0	1	1	0	0	0	0	0	0	5	4	4	0	0	0	0	0	52
51	1	1	1	0	1	1	0	0	0	0	0	0	5	4	0	0	0	0	0	0	51
50	1	1	1	0	1	1	0	0	0	0	0	0	5	4	0	0	0	0	0	0	50
49	1	1	0	0	1	0	0	0	0	0	0	0	4	4	0	0	0	0	0	0	49
48	1	1	0	0	1	0	0	0	0	0	0	0	4	4	0	0	0	0	0	0	48
47	1	1	0	0	1	0	0	0	0	0	0	0	4	4	0	0	0	0	0	0	47
46	1	1	0	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	46
45	1	1	0	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	45
42-44	1	1	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	42-44
40-41	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40-41
30-39	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30-39
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	

8.3.8 SHORT SWORD ATTACK TABLE

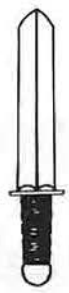
Weapon Type: One-Handed Slashing

Length: 1.5-2 feet

Weight: 2-4 pounds

Fumble Range: 01-02 UM

Range (OB Mod): 1'-10' (–30)



8.4.1 ARMORED FIST ATTACK TABLE

Weapon Type: One-handed Concussion

Length: —

Weight: —

Fumble Range: 01-01 UM

Range (OB Mod): —

	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
150	2AK	2AK	5CK	5EK	2CK	2CK	6DK	5EK	2EK	2EK	5EK	5EK	4EK	4EK	7EK	9EK	4EK	7EK	8EK	10EK	150
149	2	2	5BK	5DK	2BK	2CK	5CK	5EK	2DK	2EK	5EK	5EK	4EK	4EK	7EK	9EK	4EK	7EK	8EK	10EK	149
148	2	2	5AK	5CK	2AK	2BK	5CK	5DK	2CK	2DK	5DK	5EK	4EK	4EK	7EK	9EK	4EK	7EK	8EK	10EK	148
147	2	2	5AK	5CK	2AK	2BK	5CK	5DK	2CK	2DK	5DK	5EK	4DK	4EK	7EK	9EK	4EK	7EK	8EK	10EK	147
146	2	2	5AK	4CK	2AK	2BK	5CK	5CK	2CK	2CK	5DK	5DK	4DK	4DK	7DK	9EK	4DK	7EK	8EK	10EK	146
145	2	2	5AK	5BK	2AK	2AK	5BK	5CK	2CK	2CK	5CK	5DK	4DK	4DK	7DK	9EK	4DK	7EK	8EK	10EK	145
144	2	2	5	5BK	2	2AK	5BK	5CK	2CK	2CK	5CK	5DK	4CK	4DK	7DK	9DK	4DK	7DK	8EK	10EK	144
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142	2	2	5	5BK	2	2AK	5BK	5CK	2BK	2CK	5CK	5DK	4CK	4DK	7DK	9DK	4CK	7DK	8EK	9EK	142
141	2	2	5	5AK	2	2AK	5AK	5CK	2BK	2CK	5CK	5CK	4CK	4CK	7CK	8DK	4CK	7DK	8EK	9DK	141
140	2	2	5	5AK	2	2AK	5AK	5BK	2BK	2BK	5CK	5CK	4CK	4CK	7CK	8DK	4CK	7DK	8EK	9DK	140
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	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	



	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
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114	6	7	8	9AK	10	10	11AK	11BK	8AK	9BK	11BK	11CK	10BK	10BK	12BK	13CK	8AK	11BK	14CK	14CK	114
113	6	7	8	9AK	10	10	11AK	11AK	8AK	9BK	11BK	11CK	10BK	9BK	12BK	13BK	8AK	11BK	14CK	14CK	113
112	6	7	8	9AK	10	10	11AK	11AK	8AK	8BK	11BK	10BK	10AK	9BK	12BK	13BK	8AK	11AK	14CK	14BK	112
111	6	7	8	9AK	10	9	11AK	10AK	8AK	8BK	11BK	10BK	9AK	9BK	12BK	13BK	8AK	10AK	14CK	14BK	111
110	6	7	8	9AK	10	9	11AK	10AK	8AK	8AK	11BK	10BK	9AK	9BK	12BK	13BK	8AK	10AK	14CK	13BK	110
109	6	7	8	9AK	9	9	10	10AK	8AK	8AK	10BK	10BK	9AK	9BK	11BK	12BK	8	10AK	13CK	13BK	109
108	6	7	8	8AK	9	9	10	10AK	8AK	8AK	10BK	10BK	9AK	9BK	11BK	12BK	7	10AK	13CK	13BK	108
107	6	7	7	8AK	9	9	10	9AK	7AK	8AK	10AK	9BK	9AK	9BK	11BK	12BK	7	10AK	13CK	13BK	107
106	6	7	7	8AK	9	9	10	9AK	7AK	7AK	10AK	9BK	9AK	9BK	11BK	12BK	7	9AK	13CK	12AK	106
105	6	6	7	8AK	9	8	10	9AK	7AK	7AK	9AK	9BK	9AK	9BK	11BK	11BK	7	9AK	13BK	12AK	105
104	5	6	7	8	9	8	9	9AK	7	7AK	9AK	9BK	9AK	9BK	10BK	11BK	7	9	13BK	12AK	104
103	5	6	7	8	9	8	9	9AK	7	7AK	9AK	8BK	9AK	8AK	10BK	11BK	7	9	12BK	12AK	103
102	5	6	7	7	8	8	9	8AK	7	7AK	9AK	8BK	8AK	8AK	10AK	11BK	6	9	12BK	12AK	102
101	5	6	7	7	8	8	9	8AK	7	6AK	9AK	8BK	8AK	8AK	10AK	11BK	6	9	12BK	11AK	101
100	5	6	7	7	8	8	9	8AK	7	6AK	8AK	8BK	8AK	8AK	10AK	10BK	6	8	12BK	11AK	100
99	5	6	6	7	8	8	8	8	6	6	8AK	7BK	8	8AK	10AK	10BK	6	8	12BK	11	99
98	5	6	6	7	8	7	8	8	6	6	8AK	7BK	8	8AK	9AK	10AK	6	8	12BK	11	98
97	5	6	6	7	8	7	8	7	6	6	8AK	7AK	8	8AK	9AK	10AK	6	8	11BK	10	97
96	5	6	6	7	7	7	8	7	6	6	7AK	7AK	8	8AK	9AK	9AK	5	8	11AK	10	96
95	5	6	6	6	7	7	8	7	6	5	7AK	6AK	8	7AK	9AK	9AK	5	7	11AK	10	95
94	5	5	6	6	7	7	7	7	6	5	7	6AK	8	7	9AK	9AK	5	7	11AK	10	94
93	5	5	6	6	7	7	7	7	6	5	7	6AK	8	7	9AK	9AK	5	7	11AK	10	93
92	5	5	6	6	7	6	7	6	5	5	7	6AK	7	7	8AK	9AK	5	7	11AK	9	92
91	5	5	5	6	7	6	7	6	5	5	6	6AK	7	7	8AK	8AK	5	7	10AK	9	91
90	5	5	5	6	7	6	7	6	5	4	6	5AK	7	7	8AK	8AK	4	7	10AK	9	90
89	4	5	5	6	6	6	6	6	5	4	6	5AK	7	7	8	8AK	4	6	10	9	89
88	4	5	5	5	6	6	6	6	5	4	6	5AK	7	7	8	8AK	4	6	10	8	88
87	4	5	5	5	6	6	6	5	5	4	5	5AK	7	7	8	7AK	4	6	10	8	87
86	4	5	5	5	6	5	6	5	5	4	5	4AK	7	6	7	7AK	4	6	10	8	86
85	4	5	5	5	6	5	6	5	4	4	5	4AK	7	6	7	7AK	4	6	9	8	85
84	4	5	5	5	6	5	5	5	4	3	5	4	7	6	7	7	3	0	9	0	84
83	4	4	5	5	6	5	5	4	4	3	5	4	7	6	7	7	3	0	9	0	83
82	4	4	4	5	5	5	5	4	4	3	4	3	6	6	7	6	3	0	9	0	82
81	4	4	4	4	5	5	5	4	4	3	4	3	6	6	6	6	3	0	9	0	81
80	4	4	4	4	5	5	5	4	4	3	4	3	6	6	6	6	3	0	9	0	80
79	4	4	4	4	5	4	4	4	4	2	4	3	6	6	6	6	0	0	8	0	79
78	4	4	4	4	5	4	4	3	3	2	3	2	6	6	6	5	0	0	8	0	78
77	4	4	4	4	5	4	4	3	3	2	3	2	6	5	6	5	0	0	8	0	77
76	4	4	4	4	5	4	4	3	3	2	3	2	6	5	6	5	0	0	8	0	76
75	4	4	4	4	4	4	4	3	3	2	3	2	6	5	5	5	0	0	8	0	75
74	3	4	3	3	4	4	3	3	3	0	3	0	6	5	5	5	0	0	0	0	74
73	3	4	3	3	4	3	3	2	3	0	2	0	5	5	5	4	0	0	0	0	73
72	3	3	3	3	4	3	3	2	3	0	2	0	5	5	5	4	0	0	0	0	72
71	3	3	3	3	4	3	3	2	2	0	2	0	5	5	5	4	0	0	0	0	71
70	3	3	3	3	4	3	3	2	2	0	2	0	5	5	5	4	0	0	0	0	70
69	3	3	3	3	3	3	2	2	2	0	0	0	5	5	4	0	0	0	0	0	69
68	3	3	3	3	3	3	2	1	2	0	0	0	5	4	4	0	0	0	0	0	68
67	3	3	3	2	3	3	2	1	2	0	0	0	5	4	4	0	0	0	0	0	67
66	3	3	3	2	3	2	2	1	2	0	0	0	5	4	4	0	0	0	0	0	66
65	3	3	2	2	3	2	2	1	2	0	0	0	5	4	4	0	0	0	0	0	65
64	3	3	2	2	3	2	1	0	2	0	0	0	5	4	0	0	0	0	0	0	64
63	3	3	2	2	3	2	1	0	0	0	0	0	5	4	0	0	0	0	0	0	63
62	3	3	2	2	3	2	1	0	0	0	0	0	4	4	0	0	0	0	0	0	62
61	3	2	2	2	2	2	1	0	0	0	0	0	4	4	0	0	0	0	0	0	61
60	3	2	2	1	2	1	1	0	0	0	0	0	4	4	0	0	0	0	0	0	60
59	2	2	2	1	2	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	59
58	2	2	2	1	2	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	58
57	2	2	1	1	2	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	57
56	2	2	1	1	2	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	56
55	2	2	1	1	1	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	55
54	2	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54
53	2	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53
52	2	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52
51	2	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51
50	2	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
49	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
48	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
47	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
46	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
45	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
44	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
40-43	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40-43
30-39	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30-39
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	

8.4.2 CLUB ATTACK TABLE

Weapon Type:
One-Handed Concussion

Length:
3-5 feet

Weight:
3-7 pounds

Fumble Range:
01-04 UM

Range (OB Mod):
1'-10' (-40)



8.4.3 WAR HAMMER ATTACK TABLE

Weapon Type: One-Handed Concussion

Length: 1.5-4 feet

Weight: 4-7 pounds

Fumble Range: 01-04 UM

Range (OB Mod):
1'-10' (–20)
11'-25' (–40)
26'-50' (–60)



	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
150	12EK	14EK	16EK	18EK	19EK	19EK	22EK	22EK	18EK	20EK	24EK	24EK	17EK	17EK	22EK	25EK	18EK	21EK	24EK	26EK	150
149	12EP	14EP	16EP	18EP	19EP	19EP	22EP	22EP	18EP	20EP	24EP	24EP	17EP	17EP	22EP	25EP	18EP	21EP	24EP	26EP	149
148	12EK	14EK	16EK	18EK	19EK	19EK	22EK	22EK	18EK	20EK	24EK	24EK	17EK	17EK	22EK	25EK	18EK	21EK	24EK	26EK	148
147	12EP	14EP	16EP	18EP	19EP	19EP	22EP	22EP	18EP	20EP	24EP	24EP	17EP	17EP	22EP	25EP	18EP	21EP	24EP	26EP	147
146	12EK	14EK	16EK	18EK	19EK	19EK	22EK	22EK	18EK	20EK	23EK	23EK	17EK	17EK	22EK	24EK	18EK	21EK	24EK	25EK	146
145	12EP	14EP	16EP	18EP	19EP	19EP	21EP	21EP	18EP	19EP	23EP	23EP	17EP	17EP	21EP	24EP	17EP	20EP	23EP	25EP	145
144	12EK	14EK	16EK	17EK	18EK	18EK	21EK	21EK	17EK	19EK	23EK	23EK	17EK	17EK	21EK	24EK	17EK	20EK	23EK	25EK	144
143	12DP	14DP	15EP	17EP	18EP	18EP	21EP	21EP	17EP	19EP	23EP	23EP	17EP	16EP	21EP	24EP	17EP	20EP	23EP	24EP	143
142	12DK	14DK	15EK	17EK	18EK	18EK	21EK	21EK	17EK	19EK	22EK	22EK	16EK	16EK	21EK	23EK	17EK	20EK	23EK	24EK	142
141	12DP	13DP	15DP	17EP	18EP	18EP	21EP	20EP	17DP	19EP	22EP	22EP	16EP	16EP	21EP	23EP	16EP	19EP	22EP	24EP	141
140	12DK	13DK	15DK	17EK	18DK	18EK	20EK	20EK	17DK	18EK	22EK	22EK	16DK	16EK	20EK	23EK	16EK	19EK	22EK	24EK	140
139	11DP	13DP	15DP	17EP	18DP	18DP	20DP	20EP	17DP	18EP	22EP	22EP	16DP	16EP	20EP	23EP	16EP	19EP	22EP	23EP	139
138	11DK	13DK	15DK	16DK	17DK	17DK	20DK	20EK	16DK	18DK	21DK	21EK	16DK	16EK	20EK	22EK	16EK	19EK	22EK	23EK	138
137	11CP	13CP	15DP	16DP	17DP	17DP	20DP	20EP	16DP	18DP	21EP	21EP	16DP	16DP	20EP	22EP	16EP	18EP	22EP	23EP	137
136	11CK	13CK	14DK	16DK	17DK	17DK	19DK	19DK	16DK	17DK	21DK	21EK	16DK	15DK	20EK	22EK	15EK	18EK	21EK	22EK	136
135	11CP	13CP	14DP	16DP	17DP	17DP	19DP	19DP	16DP	17DP	21DP	20EP	15DP	15DP	19DP	22EP	15DP	18EP	21EP	22EP	135
134	11CK	13CK	14DK	16DK	17DK	17DK	19DK	19DK	16DK	17DK	20DK	20DK	15DK	15DK	19DK	21EK	15DK	17EK	21EK	22EK	134
133	11CP	12CP	14DP	15DP	17DP	16DP	19DP	19DP	15DP	17DP	20DP	20DP	15DP	15DP	19DP	21EP	15DP	17EP	21EP	22EP	133
132	11CK	12CK	14CK	15DK	16DK	16DK	19DK	18DK	15CK	17DK	20DK	20DK	15DK	15DK	19DK	21DK	14DK	17DK	20EK	21EK	132
131	11CP	12CP	14CP	15DP	16DP	16DP	18DP	18DP	15CP	16DP	20DP	19DP	15DP	15DP	19DP	21DP	14DP	17DP	20EP	21EP	131
130	11CK	12CK	13CK	15DK	16DK	16DK	18DK	18DK	15CK	16DK	19DK	19DK	15CK	15DK	18DK	20DK	14DK	17DK	20EK	21EK	130
129	10BP	12CP	13CP	15DP	16CP	16DP	18DP	18DP	15CP	16DP	19DP	19DP	15CP	14DP	18DP	20DP	14DP	16DP	20EP	20EP	129
128	10BK	12BK	13CK	15DK	16CK	16DK	18DK	17DK	15CK	16DK	19DK	19DK	14CK	14DK	18DK	20DK	14DK	16DK	20EK	20EK	128
127	10BP	12BP	13CP	14DP	16CP	15CP	17CP	17DP	14CP	15DP	19DP	18DP	14DP	14CP	18DP	20DP	13DP	16DP	19EP	20EP	127
126	10BK	12BK	13CK	14DK	15CK	15CK	17CK	17DK	14CK	15CK	18DK	18DK	14CK	14DK	17DK	19DK	13DK	16DK	19EK	20EK	126
125	10BP	11BP	13CP	14CP	15CP	15CP	17CP	17DP	14CP	15CP	18DP	18DP	14CP	14DP	17DP	19DP	13DP	15DP	19EP	19DP	125
124	10AK	11BK	13CK	14CK	15CK	15CK	17CK	17DK	14CK	15CK	18CK	18DK	14CK	14DK	17DK	19DK	13DK	15DK	19EK	19DK	124
123	10AP	11BP	12CP	14CP	15CP	15CP	17CP	16DP	14CP	15CP	18CP	17DP	14CP	14DP	17DP	19DP	12DP	15DP	18DP	19DP	123
122	10AK	11BK	12CK	14CK	15CK	14CK	16CK	16DK	14CK	14CK	17CK	17DK	14CK	13DK	17DK	18DK	12CK	15DK	18DK	18DK	122
121	10AP	11AP	12BP	13CP	15CP	14CP	16CP	16DP	13CP	14CP	17CP	17DP	13CP	13DP	16DP	18DP	12CP	14DP	18DP	18DP	121
120	10AK	11AK	12BK	13CK	14CK	14CK	16CK	16CK	13CK	14CK	17CK	16DK	13CK	13CK	16DK	18DK	12CK	14DK	18DK	18DK	120
119	10AP	11AP	12BP	13CP	14CP	14CP	16CP	15CP	13CP	14CP	17CP	16DP	13CP	13CP	16CP	18DP	12CP	14DP	18DP	18DP	119
118	9AK	11AK	12BK	13CK	14BK	14CK	16CK	15CK	13BK	13CK	16CK	16DK	13CK	13CK	16CK	17DK	11CK	14CK	17DK	17DK	118
117	9AP	11AP	12BP	13CP	14BP	14CP	15CP	15CP	13BP	13CP	16CP	16CP	13CP	13CP	16CP	17DP	11CP	13CP	17DP	17DP	117
116	9AK	10AK	11BK	12CK	14BK	13CK	15CK	15CK	12BK	13CK	16CK	15CK	13CK	13CK	15CK	17DK	11CK	13CK	17DK	17DK	116
115	9AS	10AP	11BP	12CP	14BP	13BP	15CP	14CP	12BP	13CP	16CP	15CP	13CP	12CP	15CP	17DP	11CP	13CP	17DP	16DP	115
114	9	10AK	11BK	12CK	13BK	13BK	15CK	14CK	12BK	13CK	15CK	15CK	13BK	12CK	15CK	16DK	10CK	13CK	16DK	16DK	114
113	9	10AP	11BP	12BP	13BP	13BP	14CP	14CP	12BP	12CP	15CP	15CP	12BP	12CP	15CP	16CP	10CP	13CP	16DP	16DP	113
112	9	10AK	11AK	12BK	13BK	13BK	14CK	14CK	12BK	12BK	15CK	14CK	12BK	12CK	15CK	16CK	10CK	12CK	16DK	16DK	112
111	9	10AP	11AP	12BP	13AP	13BP	14CP	14CP	12BP	12BP	15CP	14CP	12BP	12CP	14CP	16CP	10BP	12CP	16DP	15DP	111
110	9	10AK	10AK	11BK	13AK	12BK	14BK	13CK	11BK	12BK	14CK	14CK	12BK	12CK	14CK	15CK	9BK	12CK	16DK	15DK	110
109	9	10	10AP	11BP	12AP	12BP	14BP	13CP	11BP	11BP	14CP	14CP	12BP	12CP	14CP	15CP	9BP	12BP	15DP	15DP	109
108	8	9	10AK	11BK	12AK	12BK	13BK	13CK	11BK	11BK	14CK	13CK	12BK	11CK	14CK	15CK	9BK	11BK	15DK	14CK	108
107	8	9	10AP	11BP	12AP	12BP	13BP	13CP	11BP	11BP	14BP	13CP	12BP	11CP	14CP	14CP	9BP	11BP	15DP	14CP	107
106	8	9	10AK	11BK	12AK	12AK	13BK	13CK	11BK	11BK	13BK	13CK	11BK	11CK	13CK	14CK	9BK	11BK	15DK	14CK	106
105	8	9	10AP	10BP	12AP	11AP	13BP	12CP	11AP	11BP	13BP	12CP	11BP	11CP	13CP	14CP	8AP	11BP	14CP	14CP	105
104	8	9	10AK	10AK	12AK	11AK	12BK	12BK	10AK	10BK	13BK	12CK	11BK	11CK	13BK	14CK	8AK	10BK	14CK	13CK	104
103	8	9	9AP	10AP	11AP	11AP	12BP	12BP	10AP	10BP	13BP	12CP	11BP	11BP	13BP	13CP	8AP	10BP	14CP	13CP	103
102	8	9	9AK	10AK	11AK	11AK	12BK	11BK	10AK	10BK	12BK	12CK	11BK	10BK	12BK	13CK	8AK	10AK	14CK	13CK	102
101	8	9	9AP	10AP	11AP	11AP	12AP	11BP	10AP	10BP	12BP	11CP	11BP	10BP	12BP	13BP	7AP	10AP	14CP	12CP	101
100	8	9	9AK	10AK	11AK	11AK	12AK	11BK	10AK	9BK	12BK	11CK	11BK	10BK	12BK	13BK	7AK	9AK	13CK	12BK	100
99	8	8	9	9AP	11	10AP	11AP	11BP	9AP	9AP	12BP	11BP	10AP	10BP	12BP	12BP	7	9AP	13CP	12BP	99
98	8	8	9	9AK	11	10AK	11AK	11BK	9AK	9AK	11BK	11BK	10AK	10BK	12BK	12BK	7	9AK	13CK	12BK	98
97	7	8	8	9AP	10	10AP	11AP	10BP	9AP	9AP	11BP	10BP	10AP	10BP	11BP	12BP	7	9AP	13CP	11BP	97
96	7	8	8	9AK	10	10AK	11AK	10BK	9AK	9AK	11BK	10BK	10AK	10BK	11BK	12BK	6	8AK	12CK	11BK	96
95	7	8	8	9AP	10	10AS	11AP	10BP	9AS	8AP	11BP	10BP	10AP	9BP	11BP	11BP	6	8AS	12CP	11BP	95
94	7	8	8	9AK	10	9	10AK	10BK	9	8AK	10AK	10BK	10AK	9BK	11BK	11BK	6	8	12BK	10AK	94
93	7	8	8	8AP	10	9	10AP	9AP	8	8AP	10AP	9BP	10AP	9BP	11BP	11BP	6	8	12BP	10AP	93
92	7	7	8	8AK	10	9	10AK	9AK	8	8AK	10AK	9BK	9AK	9BK	10BK	11BK	5	7	12BK	10AK	92
91	7	7	8	8AP	9	9	10AP	9AP	8	7AP	10AP	9BP	9AP	9BP	10BP	10BP	5	7	11BP	10AP	91
90	7	7	7	8AK	9	9	9AK	9AK	8	7AK	9AK	8BK	9AK	9BK	10BK	10BK	5	7	11BK	9AK	90
89	7	7	7	8	9	9	9	9AP	8	7	9AP	8BP	9AP	9AP	10BP	10BP	5	7	11BP	9	89
88	7	7	7	7	9	8	9	8AK	8	7	8AK	8BK	9AK	8AK	10AK	10BK	5	6	11BK	9	88
87	6	7	7	7	9	8	9	8AP	7	7	9AP	8BP	9AP	8AP	9AP	9BP	4	6	10BP	8	87
86	6	7	7	7	9	8	9	8AK	7	6	8AK	7BK	9AK	8AK	9AK	9BK	4	6	10AK	8	86
85	6	7	7	7	8	8	8	8AP	7	6	8AS	7BP	8AS	8AP	9AP	9BP	4	6	10AP	8	85
84	6	7	7	7	8	8	8	7AK	7	6	8	7AK	8	8AK	9AK	9AK	4	0	10AK	0	84
83	6	6	6	7	8	7	8	7AP	7	6	8	7AP	8	8AP	9AP	8AP	3	0	10AP	0	83
82	6	6	6	6	8	7	8	7AK	6	5	7	6AK	8	8AK	8AK	8AK	3	0	9AK	0	82
81	6	6	6	6	8	7	7	7AP	6	5	7	6AP	8	7AP	8AP	8AP	3	0	9AP	0	81
80	6	6	6	6	8	7	7	6AK	6	5	7	6AK	8	7AK	8AK	8AK	3	0	9AK	0	80
79	6	6	6	6	7	7	7	6	6	5	7	6AP	8	7	8AP	7AP	0	0	9	0	79
78	6	6	6	6	7	7	7	6	6	5	6	5AK	8	7	7AK	7AK	0	0	8	0	78
77	6	6	5	5	7	6	7	6	6	4	6	5AP	7	7	7AP	7AP	0	0	8	0	77
76	5	6	5	5	7	6	6	6	5	4	6	5AK	7	7	7AK	7AK	0	0	8	0	76
75	5	5	5	5	7	6	6	5	5	4	6	4AS	7	7	7AS	6AP	0	0	8	0	75
74	5	5	5	5	6	6	6	5	5	4	5	4	7	6	7	6AK	0	0	0	0	74
73	5	5	5	5	6	6	6	5	5	3	5	4	7	6	6	6AP	0	0	0	0	73
72	5	5	5	5	6	6	6	5	5	3	5	4	7	6	6	6AK	0	0	0	0	72
71	5	5	5	4	6	5	5	4	5	3	5	3	7	6	6	5AP	0	0	0	0	71
70	5	5	4	4	6	5	5	4	4	3	4	3	6	6	6	5AK	0	0	0	0	70
69	5	5	4	4	6	5	5	4	4	3	4	3	6	6	6	5	0	0	0	0	69
68	5	5	4	4	5	5	5	4	4	2	4	3	6	6	5	5	0	0	0	0	68
67	5	4	4	4	5	5	4	3	4	2	4	2	6	5	5	4	0	0	0	0	67
66	4	4	4	4	5	4	4	3	4	2	3	2	6	5	5	4	0	0	0	0	66
65	4	4	4	3	5	4	4	3	3	2	3	2	6	5	5	4	0	0	0	0	65
64	4	4	4	3	5	4	4	3	3	0	3	0	6	5	5	0	0	0	0	0	64
63	4	4	3	3	5	4	4	3	3	0	3	0	5	5	4	0	0	0	0	0	63
62	4	4	3	3	4	4	3	2	3	0	2	0	5	5	4	0	0	0	0	0	62
61	4	4	3	3	4	4	3	2	3	0	2	0	5	5	4	0	0	0	0	0	61
60	4	4	3	2	4	3	3	2	3	0	2	0	5	4	4	0	0	0	0	0	60
59	4	4	3	2	4	3	3	2	3	0	0	0	5	4	0	0	0	0	0	0	59
58	4	3	3	2	4	3	2	1	2	0	0	0	5	4	0	0	0	0	0	0	58
57	4	3	2	2	4	3	2	1	2	0	0	0	5	4	0	0	0	0	0	0	57
56	4	3	2	2	3	3	2	1	2	0	0	0	4	4	0	0	0	0	0	0	56
55	3	3	2	2	3	2	2	1	2	0	0	0	4	4	0	0	0	0	0	0	55
54	3	3	2	1	3	2	2	0	0	0	0	0	4	0	0	0	0	0	0	0	54
53	3	3	2	1	3	2	1	0	0	0	0	0	4	0	0	0	0	0	0	0	53
52	3	3	2	1	3	2	1	0	0	0	0	0	4	0	0	0	0	0	0	0	52
51	3	3	2	1	3	2	1	0	0	0	0	0	4	0	0	0	0	0	0	0	51
50	3	2	1	1	2	2	1	0	0	0	0	0	4	0	0	0	0	0	0	0	50
49	3	2	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
48	3	2	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
46-47	3	2	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46-47
45	2	2	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
43-44	2	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43-44
40-42	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40-42
35-39	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35-39
25-34	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25-34
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	

	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
150	12EK	14EK	16EK	18EK	19EK	19EK	22EK	22EK	14EK	16EK	20EK	20EK	15EK	15EK	20EK	23EK	15EK	18EK	21EK	23EK	150
149	12EK	14EK	16EK	18EK	19EK	19EK	22EK	22EK	14EK	16EK	20EK	20EK	15EK	15EK	20EK	23EK	15EK	18EK	21EK	23EK	149
148	12EK	14EK	16EK	18EK	19EK	19EK	22EK	22EK	14EK	16EK	20EK	20EK	15EK	15EK	20EK	23EK	15EK	18EK	21EK	23EK	148
147	12EK	14EK	16EK	18EK	19EK	19EK	22EK	22EK	14EK	16EK	20EK	20EK	15EK	15EK	20EK	23EK	15EK	18EK	21EK	23EK	147
146	12EK	14EK	16EK	18EK	19EK	19EK	22EK	22EK	14EK	16EK	20EK	20EK	15EK	15EK	20EK	23EK	15EK	18EK	21EK	22EK	146
145	12DK	14DK	16EK	18EK	19EK	19EK	21EK	21EK	14EK	16EK	19EK	19EK	15EK	15EK	20EK	22EK	15EK	17EK	21EK	22EK	145
144	12DK	14DK	16EK	17EK	19EK	18EK	21EK	21EK	14EK	15EK	19EK	19EK	15EK	15EK	19EK	22EK	14EK	17EK	20EK	22EK	144
143	12DK	14DK	15DK	17EK	18EK	18EK	21EK	21EK	13DK	15EK	19EK	19EK	15EK	15EK	19EK	22EK	14EK	17EK	20EK	22EK	143
142	12DK	14DK	15DK	17EK	18EK	18EK	21EK	21EK	13DK	15EK	19EK	19EK	14DK	14EK	19EK	22EK	14EK	17EK	20EK	21EK	142
141	12DK	13DK	15DK	17EK	18DK	18DK	21DK	21EK	13DK	15DK	19DK	18EK	14DK	14EK	19EK	21EK	14EK	17EK	20EK	21EK	141
140	12CK	13CK	15DK	17EK	18DK	18DK	20DK	20EK	13DK	15DK	18DK	18EK	14DK	14DK	19EK	21EK	14EK	16EK	20EK	21EK	140
139	11CK	13CK	15DK	17DK	18DK	18DK	20DK	20EK	13DK	14DK	18DK	18EK	14DK	14DK	18EK	21EK	13DK	16EK	19EK	21EK	139
138	11CK	13CK	15DK	16DK	18DK	17DK	20DK	20EK	13DK	14DK	18DK	18EK	14DK	14DK	18DK	21EK	13DK	16EK	19EK	20EK	138
137	11CK	13CK	15DK	16DK	17DK	17DK	20DK	20DK	13DK	14DK	18DK	17EK	14DK	14DK	18DK	20EK	13DK	16EK	19EK	20EK	137
136	11CK	13CK	14DK	16DK	17DK	17DK	20DK	19DK	13DK	14DK	17DK	17DK	14DK	14DK	18DK	20DK	13DK	16DK	19EK	20EK	136
135	11CK	13CK	14CK	16DK	17DK	17DK	19DK	19DK	13CK	14DK	17DK	17DK	14DK	14DK	18DK	20DK	13DK	15DK	19EK	20EK	135
134	11BK	13CK	14CK	16DK	17DK	17DK	19DK	19DK	12CK	14DK	17DK	17DK	13CK	13DK	17DK	20DK	12DK	15DK	18EK	19EK	134
133	11BK	13BK	14CK	16DK	17DK	17DK	19DK	19DK	12CK	13DK	17DK	17DK	13CK	13DK	17DK	19DK	12DK	15DK	18EK	19EK	133
132	11BK	12BK	14CK	15DK	17DK	16DK	19DK	19DK	12CK	13DK	17DK	16DK	13CK	13DK	17DK	19DK	12DK	15DK	18EK	19EK	132
131	11BK	12BK	14CK	15DK	16CK	16DK	19DK	18DK	12CK	13DK	16DK	16DK	13CK	13DK	17DK	19DK	12DK	15DK	18EK	19EK	131
130	11BK	12BK	14CK	15DK	16CK	16CK	18CK	18DK	12CK	13CK	16DK	16DK	13CK	13DK	17DK	19DK	12DK	14DK	18EK	18DK	130
129	11AK	12BK	13CK	15DK	16CK	16CK	18CK	18DK	11CK	13CK	16DK	16DK	13CK	13DK	16DK	18DK	11CK	14DK	17EK	18DK	129
128	10AK	12BK	13CK	15DK	16CK	16CK	18CK	18DK	11CK	12CK	16CK	15DK	13CK	13DK	16DK	18DK	11CK	14DK	17DK	18DK	128
127	10AK	12BK	13CK	15CK	16CK	16CK	18CK	17DK	11CK	12CK	15CK	15DK	13CK	12CK	16DK	18DK	11CK	14DK	17DK	18DK	127
126	10AK	12AK	13BK	14CK	16CK	15CK	18CK	17DK	11CK	12CK	15CK	15DK	12CK	12CK	16DK	18DK	11CK	14DK	17DK	17DK	126
125	10AK	12AK	13BK	14CK	15CK	15CK	17CK	17DK	11CK	12CK	15CK	15DK	12CK	12CK	16CK	17DK	11CK	13CK	17DK	17DK	125
124	10AK	11AK	13BK	14CK	15CK	15CK	17CK	17DK	11CK	12CK	15CK	14DK	12CK	12CK	15CK	17DK	11CK	13CK	17DK	17DK	124
123	10AK	11AK	13BK	14CK	15CK	15CK	17CK	17DK	11CK	11CK	15CK	14DK	12CK	12CK	15CK	17DK	10CK	13CK	16DK	17DK	123
122	10AK	11AK	12BK	14CK	15BK	15CK	17CK	16CK	10CK	11CK	14CK	14DK	12CK	12CK	15CK	17DK	10CK	13CK	16DK	16DK	122
121	10AK	11AK	12BK	14CK	15BK	15CK	16CK	16CK	10BK	11CK	14CK	14DK	12CK	12CK	15CK	16CK	10CK	13CK	16DK	16DK	121
120	10AK	11AK	12BK	13CK	15BK	14BK	16CK	16CK	10BK	11CK	14CK	13CK	12CK	12CK	15CK	16CK	10CK	12CK	16DK	16DK	120
119	10	11AK	12BK	13CK	14BK	14BK	16CK	16CK	10BK	11CK	14CK	13CK	12BK	11CK	14CK	16CK	10CK	12CK	16DK	16DK	119
118	10	11AK	12BK	13CK	14BK	14BK	16CK	16CK	10BK	11CK	13CK	13CK	11BK	11CK	14CK	16CK	9CK	12CK	15DK	15DK	118
117	9	11AK	12AK	13CK	14BK	14BK	16CK	15CK	10BK	10CK	13CK	13CK	11BK	11CK	14CK	15CK	9BK	12CK	15DK	15CK	117
116	9	11AK	12AK	13BK	14BK	14BK	15CK	15CK	10BK	10BK	13CK	13CK	11BK	11CK	14CK	15CK	9BK	11CK	15DK	15CK	116
115	9	10AK	11AK	13BK	14AK	14BK	15BK	15CK	9BK	10BK	13CK	12CK	11BK	11CK	14CK	15CK	9BK	11CK	15DK	15CK	115
114	9	10	11AK	12BK	14AK	13BK	15BK	15CK	9BK	10BK	13CK	12CK	11BK	11CK	13CK	15CK	9BK	11BK	15DK	14CK	114
113	9	10	11AK	12BK	13AK	13BK	15BK	14CK	9BK	10BK	12CK	12CK	11BK	11CK	13CK	14CK	8BK	11BK	14CK	14CK	113
112	9	10	11AK	12BK	13AK	13BK	15BK	14CK	9BK	9BK	12CK	12CK	11BK	10CK	13CK	14CK	8BK	11BK	14CK	14CK	112
111	9	10	11AK	12BK	13AK	13AK	14BK	14CK	9BK	9BK	12BK	11CK	11BK	10BK	13CK	14CK	8BK	10BK	14CK	14CK	111
110	9	10	11AK	12BK	13AK	13AK	14BK	14CK	9BK	9BK	12BK	11CK	10BK	10BK	13BK	14CK	8BK	10BK	14CK	13CK	110
109	9	10	11AK	12BK	13AK	12AK	14BK	14CK	9BK	9BK	11BK	11CK	10BK	10BK	12BK	13BK	8AK	10BK	14CK	13CK	109
108	9	10	10AK	11BK	13AK	12AK	14BK	13BK	8BK	9BK	11BK	11CK	10BK	10BK	12BK	13BK	7AK	10BK	13CK	13CK	108
107	9	10	10AK	11AK	12AK	12AK	14BK	13BK	8AK	9BK	11BK	10CK	10BK	10BK	12BK	13BK	7AK	10BK	13CK	13BK	107
106	8	9	10AK	11AK	12AK	12AK	13AK	13BK	8AK	8BK	11BK	10CK	10BK	10BK	12BK	13BK	7AK	9BK	13CK	12BK	106
105	8	9	10AK	11AK	12AK	12AK	13AK	13BK	8AK	8BK	11BK	10CK	10BK	10BK	12BK	12BK	7AK	9AK	13CK	12BK	105
104	8	9	10	11AK	12	12AK	13AK	12BK	8AK	8BK	10BK	10CK	10AK	9BK	11BK	12BK	7AK	9AK	13CK	12BK	104
103	8	9	10	11AK	12	11AK	13AK	12BK	8AK	8BK	10BK	9CK	10AK	9BK	11BK	12BK	7AK	9AK	12CK	12BK	103
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101	8	9	9	10AK	11	11AK	12AK	12BK	7AK	7AK	10BK	9BK	9AK	9BK	11BK	11BK	6AK	8AK	12CK	11BK	101
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98	8	8	9	10AK	11	11	12AK	11BK	7AK	7AK	9BK	8BK	9AK	9BK	10BK	11BK	6	8AK	12BK	10AK	98
97	8	8	9	9AK	11	10	11AK	11AK	7AK	7AK	9AK	8BK	9AK	9AK	10BK	10BK	5	8AK	11BK	10AK	97
96	8	8	9	9AK	11	10	11AK	11AK	7AK	6AK	9AK	8BK	9AK	8AK	10BK	10BK	5	7AK	11BK	10AK	96
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94	7	8	8	9	10	10	11	10AK	6	6AK	8AK	7BK	8AK	8AK	9AK	10BK	5	7	11BK	9AK	94
93	7	8	8	9	10	10	11	10AK	6	6AK	8AK	7BK	8AK	8AK	9AK	9BK	5	7	11BK	9AK	93
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87	7	7	7	8	9	9	9	9AK	5	5	7AK	6BK	8	7AK	8AK	8AK	3	0	9AK	0	87
86	7	7	7	8	9	9	9	9AK	5	5	6AK	5AK	7	7AK	8AK	8AK	3	0	9AK	0	86
85	7	7	7	7	9	8	9	8AK	5	4	6AK	5AK	7	7AK	8AK	7AK	3	0	9AK	0	85
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83	6	7	7	7	9	8	9	8	5	4	6	5AK	7	7	7AK	7AK	3	0	9AK	0	83
82	6	7	7	7	8	8	8	8	5	4	5	5AK	7	7	7AK	7AK	0	0	8AK	0	82
81	6	7	7	7	8	8	8	7	5	4	5	4AK	7	6	7AK	6AK	0	0	8AK	0	81
80	6	6	6	7	8	8	8	7	4	4	5	4AK	7	6	7AK	6AK	0	0	8AK	0	80
79	6	6	6	6	8	7	8	7	4	3	5	4AK	7	6	6	6AK	0	0	8	0	79
78	6	6	6	6	8	7	8	7	4	3	5	4AK	6	6	6	6AK	0	0	8	0	78
77	6	6	6	6	8	7	7	7	4	3	4	3AK	6	6	6	5AK	0	0	0	0	77
76	6	6	6	6	7	7	7	6	4	3	4	3AK	6	6	6	5AK	0	0	0	0	76
75	6	6	6	6	7	7	7	6	4	3	4	3AK	6	6	6	5AK	0	0	0	0	75
74	6	6	6	6	7	6	7	6	4	2	4	3	6	5	5	5	0	0	0	0	74
73	5	6	5	5	7	6	7	6	3	2	3	2	6	5	5	4	0	0	0	0	73
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67	5	5	5	4	6	5	5	4	3	0	2	0	5	5	4	0	0	0	0	0	67
66	5	5	4	4	6	5	5	4	2	0	2	0	5	4	4	0	0	0	0	0	66
65	5	5	4	4	6	5	5	4	2	0	2	0	5	4	4	0	0	0	0	0	65
64	5	5	4	4	5	5	5	4	2	0	0	0	5	4	0	0	0	0	0	0	64
63	5	4	4	4	5	5	4	4	2	0	0	0	5	4	0	0	0	0	0	0	63
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61	4	4	4	3	5	4	4	3	2	0	0	0	4	4	0	0	0	0	0	0	61
60	4	4	4	3	5	4	4	3	2	0	0	0	4	4	0	0	0	0	0	0	60
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58	4	4	3	3	4	4	3	2	0	0	0	0	4	0	0	0	0	0	0	0	58
57	4	4	3	3	4	4	3	2	0	0	0	0	4	0	0	0	0	0	0	0	57
56	4	4	3	3	4	3	3	2	0	0	0	0	4	0	0	0	0	0	0	0	56
55	4	4	3	2	4	3	3	2	0	0	0	0	4	0	0	0	0	0	0	0	55
54	4	3	3	2	4	3	3	2	0	0	0	0	0	0	0	0	0	0	0	0	54
53	4	3	3	2	4	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	53
52	4	3	2	2	3	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	52
51	3	3	2	2	3	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	51
50	3	3	2	2	3	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	50
49	3	3	2	1	3	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	49
48	3	3	2	1	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	48
47	3	3	2	1	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	47
45-46	3	2	2	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	45-46
40-44	3	2	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40-44
35-39	2	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35-39
30-34	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30-34
18-29	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18-29
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	

8.4.4 MACE ATTACK TABLE

Weapon Type:
One-handed Concussion

Length:
2-3 feet

Weight:
3.5-8 pounds

Fumble Range:
01-02 UM

Range (OB Mod):
1'-10' (–35)



8.4.5 MORNING STAR ATTACK TABLE

Weapon Type:
One-handed Concussion

Length:
2.5-4 feet

Weight:
4-8 pounds

Fumble Range:
01-08 UM

Range (OB Mod):
—



	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
150	15EK	17EK	19EK	21EK	22EK	22EK	25EK	25EK	21EK	23EK	27EK	27EK	25EK	25EK	30EK	33EK	27K	30EK	33EK	35EK	150
149	15EK	17EK	19EK	21EK	22EK	22EK	25EK	25EK	21EK	23EK	27EK	27EK	25EK	25EK	30EK	33EK	27EK	30EK	33EK	35EK	149
148	15EK	17EK	19EK	21EK	22EK	22EK	25EK	25EK	21EK	23EK	27EK	27EK	25EK	25EK	30EK	33EK	27EK	30EK	33EK	35EK	148
147	15EK	17EK	19EK	21EK	22EK	22EK	25EK	25EK	21EK	23EK	27EK	27EK	25EK	25EK	30EK	33EK	27EK	30EK	33EK	34EK	147
146	15EK	17EK	19EK	21EK	22EK	22EK	25EK	25EK	21EK	23EK	26EK	26EK	25EK	25EK	29EK	32EK	26EK	29EK	32EK	34EK	146
145	15DK	17DK	19EK	21EK	22EK	22EK	24EK	24EK	21EK	22EK	26EK	26EK	24EK	24EK	29EK	32EK	26EK	29EK	32EK	34EK	145
144	15DK	17DK	18EK	20EK	21EK	21EK	24EK	24EK	20EK	22EK	26EK	26EK	24EK	24EK	29EK	32EK	26EK	29EK	32EK	33EK	144
143	15DK	17DK	18DK	20EK	21EK	21EK	24EK	24EK	20EK	22EK	26EK	25EK	24EK	24EK	29EK	31EK	25EK	28EK	31EK	33EK	143
142	15DP	16DK	18DK	20EK	21DK	21DK	24EK	24EK	20EK	22EK	25EK	25EK	24EK	24EK	28EK	31EK	25EK	28EK	31EK	33EK	142
141	14DK	16DP	18DK	20EK	21DK	21DK	23DK	23EK	20EK	21EK	25EK	25EK	24EK	24EK	28EK	31EK	25EK	28EK	31EK	32EK	141
140	14CP	16CK	18DK	20EK	21DK	21DK	23DK	23EK	20EK	21EK	25EK	25EK	23EK	23EK	28EK	30EK	24EK	27EK	30EK	32EK	140
139	14CK	16CP	18DP	19DK	20DP	20DK	23DK	23EK	19DK	21EK	25EK	24EK	23EK	23EK	27EK	30EK	24EK	27EK	30EK	31EK	139
138	14CP	16CK	17DK	19DK	20DK	20DP	23DK	23EK	19DK	21EK	24EK	24EK	23EK	23EK	27EK	30EK	24EP	27EK	30EK	31EK	138
137	14CK	16CP	17DP	19DP	20DP	20DK	22DP	22DK	19DP	20EK	24DK	24EK	23DK	23EK	27EK	29EK	23EK	26EP	30EK	31EK	137
136	14CP	16CK	17DK	19DK	20DK	20DP	22DK	22DK	19DK	20DP	24DK	23EK	23DP	22EK	27EK	29EK	23EP	26EK	29EK	30EP	136
135	14CK	15CP	17CP	19DP	20DP	20DK	22DP	22DP	19DP	20DK	23DK	23EK	22DK	22DP	26EK	29EK	23EK	26EP	29EK	30EK	135
134	14CP	15CK	17CK	18DK	19DK	19DP	22DK	22DK	18DK	20DP	23DK	23EK	22DP	22DK	26EP	29EK	23EP	25EK	29EP	30EP	134
133	14CK	15CP	17CP	18DP	19DP	19DK	21DP	21DP	18DP	19DK	23DP	23EP	22DK	22DP	26EK	29EP	22EK	25EP	28EK	29EK	133
132	13BP	15BK	16CK	18DK	19DK	19DP	21DK	21DK	18DK	19DP	23DK	22DK	22DP	22DK	25DP	28EK	22EP	25EK	28EP	29EP	132
131	13BK	15BP	16CP	18DP	19CP	19DK	21DP	21DP	18DP	19DK	22DP	22DP	22DK	21DP	25DK	27EP	22DK	24EP	28EK	28EK	131
130	13BP	15BK	16CK	18DK	19CK	19CP	21DK	21DK	18DK	19DP	22DK	22DK	21DP	21DK	25DP	27EK	21DP	24EK	27EP	28EP	130
129	13BK	15BP	16CP	17DP	19CP	18CK	21CP	20DP	17DP	18DK	22DP	21DP	21DK	21DP	25DK	27DP	21DK	24DP	27EK	28EK	129
128	13BP	14BK	16CK	17DK	18CK	18CP	20CK	20DK	17CK	18DP	22DK	21DK	21DP	21DK	24DP	26DK	21DP	23DK	27EP	27EP	128
127	13BK	14BP	16CP	17CP	18CP	18CK	20CP	20DP	17CP	18DK	21DP	21DP	21DK	20DP	24DK	26DP	20DK	23DP	27EK	27EK	127
126	13BP	14BK	15CK	17CK	18CK	18CP	20CK	20DK	17CK	18DP	21DK	21DK	21DP	20DK	24DP	26DK	20DP	23DK	26EP	27EP	126
125	13AK	14BP	15BP	17CP	18CP	18CK	20CP	19DP	17CP	17DK	21DP	20DP	20CK	20DP	23DK	25DP	20DK	22DP	26EK	26EK	125
124	13AP	14AK	15BK	16CK	18CK	17CP	19CK	19DK	16CK	17DP	20DK	20DK	20CP	20DK	23DP	25DK	19DP	22DK	26EP	26EP	124
123	12AK	14AP	15BP	16CP	17CP	17CK	19CP	19DP	16CP	17DK	20DP	20DP	20CK	20DP	23DK	25DP	19DK	22DP	25EK	26EK	123
122	12AP	14AK	15BK	16CK	17CK	17CP	19DK	19DK	16CK	17CP	20DK	19DK	20CP	19DK	23DP	24DK	19DP	21DK	25EP	25EP	122
121	12AK	13AP	15BP	16CP	17CP	17CK	19CP	18CP	16CP	16CK	20CP	19DP	19CK	19DP	22DK	24DP	19DK	21DP	25EK	25EK	121
120	12AP	13AK	14BK	16CK	17BK	17CP	18CK	18CK	16CK	16CP	19CK	19DK	19CP	19DK	22DP	24DK	18DP	21DK	24EP	24DP	120
119	12AK	13AP	14BP	15CP	17BP	16CK	18CP	18CP	15CP	15CK	19CP	19DP	19CK	19DP	22DK	23DP	18DK	20DP	24DK	24DK	119
118	12AP	13AK	14BK	15CK	16BK	16BP	18CK	18CK	15CK	16CP	19CK	18DK	19CP	19DK	21DP	23DK	18DP	20DK	24DP	24DP	118
117	12AK	13AP	14BP	15CP	16BP	16BK	18CP	17CP	15CP	16CK	19CP	18DP	19CK	18CP	21DK	23DP	17DK	20DP	24DK	23DK	117
116	12AP	13AK	14BK	15CK	16BK	16BP	17CK	17CK	15CK	15CP	18CK	18DK	18CP	18CK	21DP	22DK	17CP	19DK	23DP	23DP	116
115	11AK	13AP	14AP	15BP	16BP	16BK	17CP	17CP	15CP	15CK	18CP	17DP	18CK	18CP	21DK	22DP	17CK	19DP	23DK	23DK	115
114	11	12AK	13AK	14BK	16BK	15BP	17CK	17CK	14CK	15CP	18CK	17DK	18CP	18CK	20CP	22DK	16CP	19DK	23DP	22DP	114
113	11	12AP	13AP	14BP	15BP	15BK	17CP	16CP	14CP	15CK	17CP	17CP	18CK	17CP	20CK	22DP	16CK	18DP	22DK	22DK	113
112	11	12AK	13AK	14BK	15AK	15BP	17BK	16CK	14BK	14CP	17CK	17CK	18CP	17CK	20CP	21DK	16CP	18CK	22DP	21DP	112
111	11	12AP	13AP	14BP	15AP	15BK	16BP	16CP	14BP	14CK	17CP	16CP	17CK	17CP	20CK	21DP	16CK	18CP	22DK	21DK	111
110	11	12AK	13AK	14BK	15AK	15BP	16BK	16CK	14BK	14CP	17CK	16CK	17CP	17CK	19CP	20DK	15CP	17CK	21DP	21DP	110
109	11	12	12AP	13BP	15AP	14BK	16BP	15CP	13BP	14CK	16CP	16CP	17BK	17CP	19CK	20DP	15CK	17CP	21DK	20DK	109
108	11	12	12AK	13BK	15AK	14AP	16BK	15CK	13BK	13CP	16CK	15CK	17BP	16CK	19CP	20CK	15CP	17CK	21DP	20DP	108
107	11	11	12AP	13BP	14AP	14AK	15BP	15CP	13BP	13CK	16CP	15CP	17BK	16CP	18CK	19CP	14CK	16CP	20DK	20DK	107
106	10	11	12AK	13BK	14AK	14AP	15BK	15CK	13BK	13BP	16CK	15CK	16BP	16CK	18CP	19CK	14CP	16CK	20DP	19DP	106
105	10	11	12AP	13BP	14AP	14AK	15BP	14BP	13BP	13BK	15CP	15CP	16BK	16CP	18CK	19CP	14CK	16CP	20DK	19DK	105
104	10	11	12AK	12AK	14AK	13AP	15BK	14BK	12BK	12BP	15CK	14CK	16BP	15CK	18CP	18CK	13BP	15CK	20DP	19DP	104
103	10	11	11AP	12AP	14AP	13AK	14BP	14BP	12BP	12BK	15CP	14CP	16BK	15CP	17CK	18CP	13BK	15CP	19DK	18DK	103
102	10	11	11AK	12AK	13AK	13AP	14BK	14BK	12BK	12BP	14BK	14CK	16BP	15CK	17CP	18CK	13BP	15BK	19DP	18DP	102
101	10	11	11AP	12AP	13AP	13AK	14AP	13BP	12BP	12BK	14BP	13CP	15BK	15CP	17CK	17CP	12BK	14BP	19DK	17DK	101
100	10	10	11AK	12AK	13AK	13AP	14AK	13BK	12BK	11BP	14BK	13CK	15BP	15CK	16CP	17CK	12BP	14BK	18DP	17CP	100
99	10	10	11	11AP	13	12AK	13AP	13BP	11AP	11BK	14BP	13CP	15BK	14BP	16CK	17CP	12AK	14BP	18CK	17CK	99
98	10	10	11	11AK	13	12AP	13AK	13BK	11AK	11BP	13BK	13CK	15BP	14BK	16BP	16CK	11AP	13BK	18CP	16CP	98
97	9	10	10	11AP	12	12AK	13AP	12BP	11AP	11BK	13BP	12CP	14BK	14BP	16BK	16CP	11AK	13BP	17CK	16CK	97
96	9	10	10	11AK	12	12AP	13AK	12BK	11AK	10BP	13BK	12CK	14AP	14BK	15BP	16CK	11AP	13BK	17CP	16CP	96
95	9	10	10	11AP	12	12AK	13AP	12BP	11AP	10BK	13BP	12CP	14AK	14BP	15BK	15BP	11AK	12AP	17CK	15CK	95
94	9	10	10	10AK	12	11	12AK	12BK	10AK	10BP	12BK	11CK	14AP	13BK	15BP	15BK	10	12AK	17CP	15CP	94
93	9	9	10	10AP	12	11	12AP	11BP	10AP	10AK	12BP	11BP	14AK	13BP	14BK	15BP	10	12AP	16CK	14CK	93
92	9	9	10	10AK	11	11	12AK	11AK	10AK	9AP	12BK	11BK	13AP	13BK	14BP	14BK	10	11AK	16CP	14BP	92
91	9	9	9	10AP	11	11	12AP	11AP	10AP	9AK	12BP	11BP	13AK	13BP	14BK	14BP	9	11AP	16CK	14BK	91
90	9	9	9	10AK	11	11	11AK	11AK	10AK	9AP	11AK	10BK	13AP	12BK	14BP	14BK	9	11AK	15CP	13BP	90
89	9	9	9	9	11	10	11	10AP	9	9AK	11AP	10BP	13AK	12BP	13BK	13BP	9	10	15CK	13BK	89
88	8	9	9	9	11	10	11	10AK	9	9AP	11AK	10BK	13AP	12BK	13BP	13BK	8	10	15CP	13BP	88
87	8	9	9	9	11	10	11	10AP	9	8AK	10AP	9BP	12AK	12AP	13BK	13BP	8	10	14BK	12AK	87
86	8	9	9	9	10	10	10	10AK	9	8AP	10AK	9BK	12AP	12AK	12BP	13BK	8	9	14BP	12AP	86
85	8	8	8	9	10	10	10	9AP	9	8AK	10AP	9BP	12AK	11AP	12BK	12BP	7	9	14BK	12AK	85
84	8	8	8	8	10	9	10	9AK	8	8	10AK	9BK	12	11AK	12AP	12BK	7	9	14BP	11	84
83	8	8	8	8	10	9	10	9AP	8	7	9AP	8BP	12	11AP	12AK	11BP	7	8	13BK	11	83
82	8	8	8	8	10	9	9	9AK	8	7	9AK	8BK	11	11AK	11AP	11BK	7	8	13BP	10	82
81	8	8	8	8	9	9	9	8AP	8	7	9AP	8BP	11	10AP	11AK	11AP	6	8	13BK	10	81
80	7	8	8	8	9	9	9	8AK	8	7	9AK	7BK	11	10AK	11AP	10AK	6	7	12BP	10	80
79	7	8	7	7	9	8	9	8	7	6	8	7AP	11	10	11AK	10AP	6	7	12AK	9	79
78	7	7	7	7	9	8	9	8	7	6	8	7AK	11	10	10AP	10AK	5	7	12AP	9	78
77	7	7	7	7	9	8	8	7	7	6	8	7AP	10	10	10AK	9AP	5	6	11AK	9	77
76	7	7	7	7	8	8	8	7	7	6	7	6AK	10	9	10AP	9AK	5	6	11AP	8	76
75	7	7	7	7	8	8	8	7	7	5	7	6AP	10	9	9AK	9AP	4	6	11AK	8	75
74	7	7	6	6	8	7	8	7	6	5	7	6AK	10	9	9	9AK	4	0	11	0	74
73	7	7	6	6	8	7	7	6	6	5	7	5AP	10	9	9	8AP	4	0	10	0	73
72	7	7	6	6	8	7	7	6	6	5	6	5AK	9	9	9	8AK	3	0	10	0	72
71	6	6	6	6	8	7	7	6	6	4	6	5AP	9	8	8	7AP	3	0	10	0	71
70	6	6	6	6	7	7	7	6	6	4	6	5AK	9	8	8	7AK	3	0	9	0	70
69	6	6	6	5	7	6	6	5	5	4	6	4	9	8	8	7	0	0	9	0	69
68	6	6	5	5	7	6	6	5	5	4	5	4	8	8	7	6	0	0	9	0	68
67	6	6	5	5	7	6	6	5	5	3	5	4	8	7	7	6	0	0	8	0	67
66	6	6	5	5	7	6	6	5	5	3	5	3	8	7	7	6	0	0	8	0	66
65	6	6	5	5	6	6	5	4	5	3	4	3	8	7	7	5	0	0	8	0	65
64	6	5	5	4	6	5	5	4	4	3	4	3	8	7	6	5	0	0	0	0	64
63	6	5	5	4	6	5	5	4	4	3	4	3	7	7	6	5	0	0	0	0	63
62	6	5	4	4	6	5	5	4	4	2	4	2	7	6	6	4	0	0	0	0	62
61	5	5	4	4	6	5	5	3	4	2	3	2	7	6	6	4	0	0	0	0	61
60	5	5	4	4	5	5	4	3	4	2	3	2	7	6	5	4	0	0	0	0	60
59	5	5	4	3	5	4	4	3	3	0	3	0	7	6	5	0	0	0	0	0	59
58	5	5	4	3	5	4	4	3	3	0	3	0	6	5	5	0	0	0	0	0	58
57	5	4	4	3	5	4	4	2	3	0	2	0	6	5	4	0	0	0	0	0	57
56	5	4	3	3	5	4	3	2	3	0	2	0	6	5	4	0	0	0	0	0	56
55	5	4	3	3	4	4	3	2	3	0	2	0	6	5	4	0	0	0	0	0	55
54	5	4	3	2	4	3	3	2	2	0	0	0	6	5	0	0	0	0	0	0	54
53	4	4	3	2	4	3	3	1	2	0	0	0	5	4	0	0	0	0	0	0	53
52	4	4	3	2	4	3	2	1	2	0	0	0	5	4	0	0	0	0	0	0	52
51	4	4	3	2	4	3	2	1	2	0	0	0	5	4	0	0	0	0	0	0	51
50	4	3	2	2	4	3	2	1	2	0	0	0	5	4	0	0	0	0	0	0	50
49	4	3	2	1	3	2	2	0	0	0	0	0	5	0	0	0	0	0	0	0	49
48	4	3	2	1	3	2	1	0	0	0	0	0	4	0	0	0	0	0	0	0	48
47	4	3	2	1	3	2	1	0	0	0	0	0	4	0	0	0	0	0	0	0	47
45-46	4	3	2	1	3	2	1	0	0	0	0	0	4	0	0	0	0	0	0	0	45-46
40-44	3	2	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40-44
35-39	3	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35-39
28-34	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28-34
18-27	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18-27
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	

	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
150	2AK	4CK	6DK	8EK	8DK	8EK	11EK	11EK	7EK	9EK	13EK	13EK	10EK	10EK	15EK	18EK	19EK	22EK	25EK	27EK	150
149	2	4BK	6CK	8EK	8CK	8DK	11DK	11EK	7EK	9EK	13EK	13EK	10EK	10EK	15EK	18EK	19EK	22EK	25EK	27EK	149
148	2	4AK	6CK	8DK	8CK	8DK	11DK	11EK	7EK	9EK	13EK	13EK	10EK	10EK	15EK	18EK	19EK	22EK	25EK	27EK	148
147	2	4AK	6CK	8DK	8CK	8CK	11CK	11DK	7DK	9EK	13EK	13EK	10EK	10EK	15EK	18EK	19EK	22EK	25EK	27EK	147
146	2	4AK	6BK	8CK	8BK	8CK	11CK	11DK	7DK	9DK	13DK	13EK	10EK	10EK	15EK	18EK	19EK	22EK	25EK	27EK	146
145	2	4AK	6BK	8CK	8BK	8CK	11CK	11DK	7DK	9DK	13DK	13EK	10EK	10EK	15EK	18EK	19EK	22EK	25EK	26EK	145
144	2	4	6BK	8CK	8BK	8CK	11CK	11DK	7CK	9DK	13DK	13EK	10DK	10EK	15EK	18EK	18EK	21EK	24EK	26EK	144
143	2	4	6BK	8CK	8BK	8CK	11CK	11CK	7CK	9DK	13DK	13DK	10DK	10DK	15EK	17EK	18EK	21EK	24EK	26EK	143
142	2	4	6AK	8CK	8AK	8BK	11CK	11CK	7CK	9CK	13DK	12DK	10DK	10DK	15DK	17EK	18DK	21EK	24EK	26EK	142
141	2	4	6AK	8BK	8AK	8BK	11CK	11CK	7CK	9CK	12DK	12DK	10DK	10DK	14DK	17EK	18DK	21EK	24EK	25EK	141
140	2	4	6AK	8BK	8AK	8BK	11BK	10CK	7CK	9CK	12CK	12DK	10DK	10DK	14DK	17DK	18DK	21DK	24EK	25EK	140
139	2	4	6AK	8BK	8AK	8BK	10BK	10CK	7CK	9CK	12CK	12DK	10DK	10DK	14DK	17DK	17DK	20DK	23EK	25EK	139
138	2	4	6AK	8BK	8AK	8BK	10BK	10CK	7CK	8CK	12CK	12DK	10CK	10DK	14DK	17DK	17DK	20DK	23EK	25EK	138
137	2	4	6AK	8BK	8AK	8AK	10BK	10CK	7CK	8CK	12CK	12DK	10CK	10DK	14DK	16DK	17DK	20DK	23EK	24EK	137
136	2	4	6AK	7BK	8AK	8AK	10BK	10CK	7CK	8CK	12CK	12DK	10CK	9DK	14DK	16DK	17DK	20DK	23EK	24DK	136
135	2	4	6AK	7AK	8AK	7AK	10BK	10BK	7CK	8CK	12CK	12CK	9CK	9DK	14DK	16DK	17CK	20DK	23EK	24DK	135
134	2	4	6	7AK	7	7AK	10AK	10BK	7CK	8CK	12CK	11CK	9CK	9CK	14DK	16DK	17CK	19DK	22DK	24DK	134
133	2	4	6	7AK	7	7AK	10AK	10BK	7BK	8CK	11CK	11CK	9CK	9CK	13CK	16DK	16CK	19DK	22DK	24DK	133
132	2	4	6	7AK	7	7AK	10AK	10BK	6BK	8CK	11CK	11CK	9CK	9CK	13CK	16DK	16CK	19CK	22DK	23DK	132
131	2	4	6	7AK	7	7AK	10AK	10BK	6BK	8CK	11CK	11CK	9CK	9CK	13CK	15DK	16CK	19CK	22DK	23DK	131
130	2	4	5	7AK	7	7AK	10AK	9BK	6BK	8CK	11CK	11CK	9CK	9CK	13CK	15DK	16CK	19CK	22DK	23DK	130
129	2	4	5	7AK	7	7	9AK	9BK	6BK	8BK	11CK	11CK	9CK	9CK	13CK	15CK	16CK	18CK	22DK	23DK	129
128	2	4	5	7AK	7	7	9AK	9BK	6BK	8BK	11CK	11CK	9CK	9CK	13CK	15CK	15CK	18CK	21DK	22DK	128
127	2	4	5	7AK	7	7	9AK	9BK	6BK	8BK	11CK	11CK	9CK	9CK	13CK	15CK	15CK	18CK	21DK	22CK	127
126	2	4	5	7AK	7	7	9AK	9AK	6BK	7BK	11BK	10CK	9CK	9CK	13CK	15CK	15CK	18CK	21DK	22CK	126
125	2	4	5	7AK	7	7	9AK	9AK	6BK	7BK	11BK	10CK	9CK	9CK	12CK	15CK	15CK	18CK	21DK	22CK	125
124	2	4	5	7	7	7	9	9AK	6BK	7BK	10BK	10CK	9BK	9CK	12CK	14CK	15BK	17CK	21DK	21CK	124
123	2	4	5	7	7	7	9	9AK	6BK	7BK	10BK	10CK	9BK	9CK	12CK	14CK	14BK	17CK	20CK	21CK	123
122	2	4	5	6	7	7	9	9AK	6AK	7BK	10BK	10CK	9BK	8CK	12CK	14CK	14BK	17CK	20CK	21CK	122
121	2	4	5	6	7	6	9	8AK	6AK	7BK	10BK	10CK	8BK	8CK	12CK	14CK	14BK	17BK	20CK	21CK	121
120	2	4	5	6	7	6	9	8AK	6AK	7BK	10BK	10BK	8BK	8CK	12CK	14CK	14BK	17BK	20CK	21CK	120
119	2	4	5	6	6	6	8	8AK	6AK	7BK	10BK	10BK	8BK	8CK	12CK	14CK	14BK	16BK	20CK	20CK	119
118	2	3	5	6	6	6	8	8AK	6AK	7AK	10BK	9BK	8BK	8BK	12BK	13CK	14BK	16BK	19CK	20CK	118
117	2	3	5	6	6	6	8	8AK	6AK	7AK	10BK	9BK	8BK	8BK	11BK	13CK	13BK	16BK	19CK	20CK	117
116	2	3	5	6	6	6	8	8AK	6AK	7AK	9BK	9BK	8BK	8BK	11BK	13CK	13BK	16BK	19CK	20BK	116
115	2	3	5	6	6	6	8	8AK	6AK	7AK	9BK	9BK	8BK	8BK	11BK	13BK	13AK	16BK	19CK	19BK	115
114	2	3	5	6	6	6	8	8	5AK	6AK	9BK	9BK	8BK	8BK	11BK	13BK	13AK	15BK	19CK	19BK	114
113	2	3	5	6	6	6	8	8	5AK	6AK	9AK	9BK	8BK	8BK	11BK	13BK	13AK	15BK	19CK	19BK	113
112	2	3	5	6	6	6	8	8	5AK	6AK	9AK	9BK	8BK	8BK	11BK	12BK	12AK	15BK	18CK	19BK	112
111	2	3	4	6	6	6	8	7	5AK	6AK	9AK	8BK	8BK	8BK	11BK	12BK	12AK	15AK	18CK	18BK	111
110	2	3	4	6	6	6	8	7	5AK	6AK	9AK	8BK	8AK	8BK	11BK	12BK	12AK	15AK	18BK	18BK	110
109	2	3	4	6	6	6	7	7	5	6AK	9AK	8BK	8AK	8BK	10BK	12BK	12AK	14AK	18BK	18BK	109
108	2	3	4	5	6	6	7	7	5	6AK	9AK	8BK	8AK	7BK	10BK	12BK	12AK	14AK	18BK	18BK	108
107	2	3	4	5	6	6	7	7	5	6AK	8AK	8BK	8AK	7BK	10BK	12BK	11AK	14AK	17BK	17BK	107
106	2	3	4	5	6	5	7	7	5	6AK	8AK	8BK	7AK	7BK	10BK	12BK	11AK	14AK	17BK	17AK	106
105	2	3	4	5	6	5	7	7	5	6AK	8AK	8AK	7AK	7BK	10BK	11BK	11AK	14AK	17BK	17AK	105
104	2	3	4	5	5	5	7	7	5	6	8AK	8AK	7AK	7AK	10BK	11BK	11AK	13AK	17BK	17AK	104
103	2	3	4	5	5	5	7	7	5	6	8AK	8AK	7AK	7AK	10BK	11BK	11	13AK	17BK	17AK	103
102	2	3	4	5	5	5	7	7	5	5	8AK	7AK	7AK	7AK	10AK	11BK	11	13AK	16BK	16AK	102
101	2	3	4	5	5	5	7	6	5	5	8AK	7AK	7AK	7AK	9AK	11BK	10	13AK	16BK	16AK	101
100	2	3	4	5	5	5	7	6	5	5	8AK	7AK	7AK	7AK	9AK	11BK	10	13AK	16BK	16AK	100
99	2	3	4	5	5	5	6	6	5	5	7	7AK	7AK	7AK	9AK	10BK	10	12AK	16BK	16AK	99
98	2	3	4	5	5	5	6	6	5	5	7	7AK	7AK	7AK	9AK	10AK	10	12	16AK	15AK	98
97	2	3	4	5	5	5	6	6	4	5	7	7AK	7AK	7AK	9AK	10AK	10	12	16AK	15AK	97
96	2	3	4	5	5	5	6	6	4	5	7	7AK	7AK	7AK	9AK	10AK	9	12	15AK	15AK	96
95	2	3	4	5	5	5	6	6	4	5	7	7AK	7AK	7AK	9AK	10AK	9	12	15AK	15AK	95
94	2	3	4	4	5	5	6	6	4	5	7	6AK	7	6AK	9AK	10AK	9	11	15AK	14AK	94
93	2	3	4	4	5	5	6	6	4	5	7	6AK	7	6AK	9AK	9AK	9	11	15AK	14	93
92	2	3	3	4	5	4	6	5	4	5	7	6AK	6	6AK	8AK	9AK	9	11	15AK	14	92
91	2	3	3	4	5	4	6	5	4	5	6	6AK	6	6AK	8AK	9AK	8	11	14AK	14	91
90	2	3	3	4	5	4	6	5	4	4	6	6AK	6	6AK	8AK	9AK	8	11	14AK	14	90
89	2	3	3	4	4	4	5	5	4	4	6	6	6	6	8AK	9AK	8	10	14AK	13	89
88	2	3	3	4	4	4	5	5	4	4	6	6	6	6	8AK	9AK	8	10	14AK	13	88
87	2	2	3	4	4	4	5	5	4	4	6	6	6	6	8AK	9AK	8	10	14AK	13	87
86	2	2	3	4	4	4	5	5	4	4	6	5	6	6	8AK	8AK	8	10	13AK	13	86
85	2	2	3	4	4	4	5	5	4	4	6	5	6	6	8AK	8AK	7	10	13AK	12	85
84	2	2	3	4	4	4	5	5	4	4	6	5	6	6	7	8AK	7	9	13AK	12	84
83	2	2	3	4	4	4	5	5	4	4	6	5	6	6	7	8AK	7	9	13	12	83
82	1	2	3	4	4	4	5	4	4	4	5	5	6	6	7	8AK	7	9	13	12	82
81	1	2	3	4	4	4	5	4	4	4	5	5	6	6	7	8AK	7	9	13	11	81
80	1	2	3	3	4	4	5	4	4	4	5	5	6	5	7	7AK	6	9	12	11	80
79	1	2	3	3	4	4	4	4	3	4	5	5	6	5	7	7	6	8	12	11	79
78	1	2	3	3	4	4	4	4	3	3	5	4	6	5	7	7	6	8	12	11	78
77	1	2	3	3	4	3	4	4	3	3	5	4	5	5	7	7	6	8	12	11	77
76	1	2	3	3	4	3	4	4	3	3	5	4	5	5	6	7	6	8	12	11	76
75	1	2	3	3	4	3	4	4	3	3	5	4	5	5	6	7	5	8	11	10	75
74	1	2	3	3	3	3	4	4	3	3	4	4	5	5	6	6	5	7	11	10	74
73	1	2	3	3	3	3	4	4	3	3	4	4	5	5	6	6	5	7	11	10	73
72	1	2	2	3	3	3	4	3	3	3	4	4	5	5	6	6	5	7	11	9	72
71	1	2	2	3	3	3	4	3	3	3	4	4	5	5	6	6	5	7	11	9	71
70	1	2	2	3	3	3	4	3	3	3	4	3	5	5	6	6	5	7	10	9	70
69	1	2	2	3	3	3	3	3	3	3	4	3	5	5	6	6	4	6	10	9	69
68	1	2	2	3	3	3	3	3	3	3	4	3	5	5	5	6	4	6	10	8	68
67	1	2	2	3	3	3	3	3	3	3	4	3	5	5	5	5	4	6	10	8	67
66	1	2	2	2	3	3	3	3	3	2	4	3	5	4	5	5	4	6	10	8	66
65	1	2	2	2	3	3	3	3	3	2	3	3	5	4	5	5	4	6	10	8	65
64	1	2	2	2	3	3	3	3	3	2	3	3	5	4	5	5	3	0	9	0	64
63	1	2	2	2	3	2	3	2	3	2	3	3	4	4	5	5	3	0	9	0	63
62	1	2	2	2	3	2	3	2	3	2	3	2	4	4	5	5	3	0	9	0	62
61	1	2	2	2	3	2	3	2	2	2	3	2	4	4	5	4	3	0	9	0	61
60	1	2	2	2	3	2	3	2	2	2	3	2	4	4	4	4	3	0	9	0	60
59	1	2	2	2	2	2	2	2	2	2	3	2	4	4	4	4	0	0	8	0	59
58	1	2	2	2	2	2	2	2	2	2	3	2	4	4	4	4	0	0	8	0	58
57	1	2	2	2	2	2	2	2	2	2	2	2	4	4	4	4	0	0	8	0	57
56	1	2	2	2	2	2	2	2	2	2	2	2	4	4	4	4	0	0	8	0	56
55	1	1	2	2	2	2	2	2	2	2	2	2	4	4	4	3	0	0	8	0	55
54	1	1	2	2	2	2	2	2	2	0	2	0	4	4	4	3	0	0	0	0	54
53	1	1	1	2	2	2	2	1	2	0	2	0	4	4	4	3	0	0	0	0	53
52	1	1	1	1	2	2	2	1	2	0	2	0	4	3	3	3	0	0	0	0	52
51	1	1	1	1	2	2	2	1	2	0	2	0	4	3	3	3	0	0	0	0	51
50	1	1	1	1	2	2	2	1	2	0	2	0	4	3	3	3	0	0	0	0	50
49	1	1	1	1	2	2	1	1	2	0	0	0	4	3	3	0	0	0	0	0	49
48	1	1	1	1	2	1	1	1	2	0	0	0	3	3	3	0	0	0	0	0	48
45-47	1	1	1	1	2	1	1	1	2	0	0	0	3	3	3	0	0	0	0	0	45-47
40-44	1	1	1	1	1	1	1	0	0	0	0	0	3	3	0	0	0	0	0	0	40-44
35-39	1	1	1	0	1	1	0	0	0	0	0	0	3	0	0	0	0	0	0	0	35-39
30-34	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30-34
25-29	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25-29
15-24	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15-24
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	

8.4.6 WHIP ATTACK TABLE

Weapon Type:
One-Handed Concussion

Length:
6-9 feet

Weight:
2-5 pounds

Fumble Range:
01-06 UM

Range (OB Mod):
—



8.5.1 BOLA ATTACK TABLE

Weapon Type: Missile

Length: 3-6 feet

Weight: 2-6 pounds

Fumble Range: 01-07 UM

Range (OB Mod):
1'-50' (+0)
51'-100' (–20)
101'-150' (–40)

	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
150	8CK	10CK	12EK	14EK	15EK	15EK	18EK	18EK	16EK	18EK	22EK	22EK	10EK	10EK	15EK	18EK	12EK	15EK	18EK	20EK	150
149	8CK	10CK	12DK	14EK	15EK	15EK	18EK	18EK	16EK	18EK	22EK	22EK	10EK	10EK	15EK	18EK	12EK	15EK	18EK	20EK	149
148	8BK	10CK	12DK	14EK	15EK	15EK	18EK	18EK	16EK	18EK	22EK	22EK	10EK	10EK	15EK	18EK	12EK	15EK	18EK	20EK	148
147	8BK	10BK	12CK	14DK	15DK	15DK	18EK	18EK	16EK	18EK	22EK	22EK	10EK	10EK	15EK	18EK	12EK	15EK	18EK	20EK	147
146	8BK	10BK	12CK	14DK	15DK	15DK	18EK	18EK	16EK	18EK	21EK	21EK	10EK	10EK	15EK	18EK	12EK	15EK	18EK	20EK	146
145	8AK	10BK	12CK	14DK	15DK	15DK	18DK	17EK	16DK	17EK	21EK	21EK	10EK	10EK	15EK	18EK	12EK	15EK	18EK	20EK	145
144	8AK	10BK	12CK	14DK	15DK	15DK	17DK	17EK	15DK	17EK	21EK	21EK	10EK	10EK	15EK	17EK	12EK	15EK	18EK	19EK	144
143	8AK	10AK	12CK	13DK	14DK	14DK	17DK	17DK	15DK	17DK	21DK	21EK	10EK	10EK	15EK	17EK	12EK	14EK	18EK	19EK	143
142	8AK	10AK	12BK	13CK	14CK	14DK	17DK	17DK	15DK	17DK	20DK	20EK	10EK	10EK	14EK	17EK	11EK	14EK	17EK	19EK	142
141	8AK	10AK	11BK	13CK	14CK	14CK	17CK	17DK	15DK	16DK	20DK	20EK	10EK	10EK	14EK	17EK	11EK	14EK	17EK	19EK	141
140	8	10AK	11BK	13CK	14CK	14CK	17CK	16DK	15DK	16DK	20DK	20EK	10EK	10EK	14EK	17EK	11EK	14EK	17EK	19EK	140
139	8	9AK	11BK	13CK	14CK	14CK	16CK	16DK	15CK	16DK	20DK	19DK	10DK	10EK	14EK	17EK	11EK	14EK	17EK	18EK	139
138	8	9AK	11BK	13CK	14CK	14CK	16CK	16DK	14CK	16DK	19DK	19DK	10DK	10EK	14EK	16EK	11EK	14EK	17EK	18EK	138
137	8	9AK	11BK	13CK	14CK	13CK	16CK	16DK	14CK	16DK	19DK	19DK	10DK	9DK	14EK	16EK	11EK	14EK	17EK	18EK	137
136	8	9AK	11AK	12BK	13BK	13CK	16CK	16DK	14CK	15DK	19DK	19DK	9DK	9DK	14EK	16EK	11EK	13EK	17EK	18EK	136
135	7	9	11AK	12BK	13BK	13CK	16CK	15DK	14CK	15CK	19DK	18DK	9DK	9DK	13DK	16EK	10DK	13EK	16EK	18EK	135
134	7	9	11AK	12BK	13BK	13BK	15CK	15DK	14CK	15CK	18DK	18DK	9DK	9DK	13DK	16EK	10DK	13EK	16EK	18EK	134
133	7	9	10AK	12BK	13BK	13BK	15CK	15CK	13CK	15CK	18CK	18DK	9DK	9DK	13DK	16EK	10DK	13EK	16EK	17EK	133
132	7	9	10AK	12BK	13BK	13BK	15CK	15CK	13CK	14CK	18CK	17DK	9DK	9DK	13DK	15DK	10DK	13DK	16EK	17EK	132
131	7	9	10AK	12BK	13BK	13BK	15CK	15CK	13CK	14CK	18CK	17DK	9DK	9DK	13DK	15DK	10DK	13DK	16EK	17EK	131
130	7	9	10AK	12BK	13AK	12BK	15BK	14CK	13CK	14CK	17CK	17DK	9DK	9DK	13DK	15DK	10DK	13DK	16EK	17EK	130
129	7	9	10AK	11BK	12AK	12BK	14BK	14CK	13CK	14CK	17CK	17DK	9CK	9DK	13DK	15DK	10DK	12DK	16EK	17EK	129
128	7	8	10AK	11AK	12AK	12BK	14BK	14CK	13CK	14CK	17CK	16DK	9CK	9DK	13DK	15DK	10DK	12DK	16EK	16EK	128
127	7	8	10AK	11AK	12AK	12BK	14BK	14CK	12BK	13CK	16CK	16DK	9CK	9DK	12DK	14DK	9DK	12DK	15EK	16EK	127
126	7	8	10AK	11AK	12AK	12AK	14BK	14CK	12BK	13CK	16CK	16CK	9CK	9DK	12DK	14DK	9DK	12DK	15EK	16DK	126
125	7	8	9	11AK	12AK	12AK	14BK	13CK	12BK	13CK	16CK	15CK	9CK	9DK	12DK	14DK	9DK	12DK	15EK	16DK	125
124	7	8	9	11AK	12AK	11AK	13BK	13CK	12BK	13CK	16CK	15CK	9CK	8DK	12DK	14DK	9DK	12DK	15DK	16DK	124
123	7	8	9	10AK	12AK	11AK	13BK	13BK	12BK	12DK	15CK	15CK	8CK	8DK	12DK	14DK	9DK	12DK	15DK	16DK	123
122	7	8	9	10AK	11AK	11AK	13AK	13BK	12BK	12BK	15CK	15CK	8CK	8CK	12DK	14DK	9CK	11DK	15DK	15DK	122
121	7	8	9	10AK	11AK	11AK	13AK	12BK	11BK	12BK	15CK	14CK	8CK	8CK	12DK	13DK	9CK	11DK	14DK	15DK	121
120	6	8	9	10AK	11AK	11AK	13AK	12BK	11BK	12BK	15CK	14CK	8CK	8CK	11CK	13DK	8CK	11DK	14DK	15DK	120
119	6	8	9	10AK	11	11AK	12AK	12BK	11BK	11BK	14CK	14CK	8CK	8CK	11CK	13DK	8CK	11CK	14DK	15DK	119
118	6	7	8	10AK	11	10AK	12AK	12BK	11BK	11BK	14BK	13CK	8CK	8CK	11CK	13DK	8CK	11CK	14DK	14DK	118
117	6	7	8	10AK	11	10AK	12AK	11BK	11BK	11BK	14BK	13CK	8CK	8CK	11CK	13DK	8CK	11CK	14DK	14DK	117
116	6	7	8	9AK	10	10AK	12AK	11BK	10BK	11BK	14BK	13CK	8CK	8CK	11CK	13DK	8CK	11CK	14DK	14DK	116
115	6	7	8	9	10	10AK	12AK	11BK	10AK	11BK	13BK	13CK	8BK	8CK	11CK	12DK	8CK	10CK	14DK	14DK	115
114	6	7	8	9	10	10	11AK	11BK	10AK	10BK	13BK	12CK	8BK	8CK	11CK	12CK	8CK	10CK	14DK	14DK	114
113	6	7	8	9	10	10	11AK	11AK	10AK	10BK	13BK	12CK	8BK	8CK	11CK	12CK	8CK	10CK	13DK	14DK	113
112	6	7	8	9	10	10	11AK	11AK	10AK	10BK	13BK	12CK	8BK	8CK	10CK	12CK	7BK	10CK	13DK	14DK	112
111	6	7	8	9	10	9	11AK	10AK	10AK	10AK	12BK	12CK	8BK	7CK	10CK	12CK	7BK	10CK	13DK	13DK	111
110	6	7	8	9	10	9	11AK	10AK	9AK	9AK	12BK	11BK	8BK	7CK	10CK	12CK	7BK	10CK	13DK	13DK	110
109	6	7	8	8	9	9	10	10AK	9AK	9AK	12BK	11BK	7BK	7CK	10CK	11CK	7BK	10BK	13DK	13CK	109
108	6	7	7	8	9	9	10	10AK	9AK	9AK	11BK	11BK	7BK	7CK	10CK	11CK	7AK	9BK	13DK	13CK	108
107	6	7	7	8	9	9	10	10AK	9AK	9AK	11BK	10BK	7BK	7BK	10CK	11CK	7AK	9BK	13DK	13CK	107
106	6	6	7	8	9	9	10	9AK	9AK	9AK	11AK	10BK	7BK	7BK	10BK	11CK	7AK	9BK	12CK	12CK	106
105	5	6	7	8	9	9	10	9AK	9AK	8AK	11AK	10BK	7BK	7BK	9BK	11CK	6AK	9BK	12CK	12CK	105
104	5	6	7	8	9	8	9	9AK	8	8AK	10AK	10BK	7AK	7BK	9BK	10CK	6	9AK	12CK	12CK	104
103	5	6	7	7	9	8	9	9AK	8	8AK	10AK	9BK	7AK	7BK	9BK	10BK	6	9AK	12CK	12CK	103
102	5	6	7	7	8	8	9	9AK	8	8AK	10AK	9BK	7AK	7BK	9BK	10BK	6	9AK	12CK	12CK	102
101	5	6	7	7	8	8	9	8AK	8	7AK	10AK	9BK	7AK	7BK	9BK	10BK	6	8AK	12CK	12BK	101
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98	5	6	6	7	8	7	8	8	7	7	9AK	8BK	7AK	6BK	9BK	9BK	6	8	11CK	11BK	98
97	5	6	6	7	8	7	8	8	7	6	9AK	8BK	7AK	6AK	8BK	9BK	5	8	11CK	11AK	97
96	5	6	6	6	8	7	8	7	7	6	8AK	7AK	6AK	6AK	8BK	9BK	5	8	11CK	11AK	96
95	5	5	6	6	7	7	8	7	7	6	8AK	7AK	6AK	6AK	8BK	9BK	5	8	11BK	10AK	95
94	5	5	6	6	7	7	8	7	7	6	8	7AK	6	6AK	8AK	9BK	5	7	11BK	10	94
93	5	5	6	6	7	7	7	7	6	6	8	7AK	6	6AK	8AK	9BK	5	7	11BK	10	93
92	5	5	5	6	7	7	7	6	6	5	7	6AK	6	6AK	8AK	8BK	5	7	10BK	10	92
91	5	5	5	6	7	6	7	6	6	5	7	6AK	6	6AK	8AK	8AK	5	7	10BK	10	91
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83	4	4	4	5	6	5	5	5	5	3	5	4	5	5	7	7AK	4	6	9	8	83
82	4	4	4	4	5	5	5	4	4	6	5	5	5	5	6	7AK	3	6	9	8	82
81	4	4	4	4	5	5	5	4	4	3	4	3	5	5	6	6AK	3	6	9	8	81
80	4	4	4	4	5	5	5	4	4	3	4	3	5	5	6	6AK	3	5	9	8	80
79	4	4	4	4	5	5	5	4	4	2	4	3	5	5	6	6	3	5	9	8	79
78	4	4	4	4	5	4	4	4	4	2	4	2	5	5	6	6	3	5	9	7	78
77	4	4	4	4	5	4	4	3	4	2	3	2	5	5	6	6	3	5	8	7	77
76	4	4	4	3	5	4	4	3	3	2	3	2	5	5	6	6	3	5	8	7	76
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74	3	4	3	3	4	4	4	3	3	0	3	0	5	5	5	5	2	5	8	7	74
73	3	3	3	3	4	4	3	3	3	0	2	0	5	4	5	5	2	0	8	0	73
72	3	3	3	3	4	3	3	2	3	0	2	0	5	4	5	5	2	0	8	0	72
71	3	3	3	3	4	3	3	2	3	0	2	0	5	4	5	5	2	0	8	0	71
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69	3	3	3	2	4	3	3	2	2	0	0	0	4	4	5	4	2	0	7	0	69
68	3	3	3	2	3	3	2	2	2	0	0	0	4	4	5	4	0	0	7	0	68
67	3	3	2	2	3	3	2	1	2	0	0	0	4	4	4	4	0	0	7	0	67
66	3	3	2	2	3	3	2	1	2	0	0	0	4	4	4	4	0	0	7	0	66
65	3	3	2	2	3	2	2	1	0	0	0	0	4	4	4	4	0	0	7	0	65
64	3	3	2	2	3	2	2	1	0	0	0	0	4	4	4	4	0	0	7	0	64
63	3	3	2	2	3	2	1	0	0	0	0	0	4	4	4	3	0	0	0	0	63
62	3	2	2	1	3	2	1	0	0	0	0	0	4	4	4	3	0	0	0	0	62
61	3	2	2	1	2	2	1	0	0	0	0	0	4	4	4	3	0	0	0	0	61
60	2	2	2	1	2	2	1	0	0	0	0	0	4	3	3	3	0	0	0	0	60
59	2	2	1	1	2	1	1	0	0	0	0	0	4	3	3	3	0	0	0	0	59
58	2	2	1	1	2	1	0	0	0	0	0	0	4	3	3	0	0	0	0	0	58
57	2	2	1	1	2	1	0	0	0	0	0	0	4	3	3	0	0	0	0	0	57
56	2	2	1	0	2	1	0	0	0	0	0	0	3	3	3	0	0	0	0	0	56
55	2	2	1	0	2	1	0	0	0	0	0	0	3	3	3	0	0	0	0	0	55
54	2	2	1	0	1	1	0	0	0	0	0	0	3	3	3	0	0	0	0	0	54
53	2	2	1	0	1	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	53
52	2	2	1	0	1	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	52
51	2	1	0	0	1	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	51
50	2	1	0	0	1	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	50
49	2	1	0	0	1	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	49
48	2	1	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	48
47	2	1	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	47
46	2	1	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	46
45	1	1	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	45
44	1	1	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	44
42-43	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42-43
32-41	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32-41
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	



	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
150	11EP	13EP	15EP	17EP	22EP	22EP	25EP	25EP	20EP	22EP	26EP	26EP	21EP	21EP	26EP	29EP	17EP	20EP	23EP	27EP	150
149	11EP	13EP	15EP	17EP	22EP	22EP	25EP	25EP	20EP	22EP	26EP	26EP	21EP	21EP	26EP	29EP	17EP	20EP	23EP	27EP	149
148	11EP	13EP	15EP	17EP	22EP	22EP	25EP	25EP	20EP	22EP	26EP	26EP	21EP	21EP	26EP	29EP	17EP	20EP	23EP	27EP	148
147	11EP	13EP	15EP	17EP	22EP	22EP	25EP	25EP	20EP	22EP	25EP	25EP	21EP	21EP	26EP	29EP	17EP	20EP	23EP	26EP	147
146	11EP	13EP	15EP	17EP	22EP	21EP	24EP	24EP	19EP	21EP	25EP	25EP	21EP	21EP	25EP	28EP	17EP	19EP	23EP	26EP	146
145	11DP	13DP	15EP	16EP	21EP	21EP	24EP	24EP	19EP	21EP	25EP	25EP	20EP	20EP	25EP	28EP	16EP	19EP	22EP	26EP	145
144	11DP	13DP	14EP	16EP	21EP	21EP	24EP	24EP	19EP	21EP	24EP	24EP	20EP	20EP	25EP	28EP	16EP	19EP	22EP	25EP	144
143	11DP	12DP	14DP	16EP	21EP	21EP	23EP	23EP	19DP	20EP	24EP	24EP	20EP	20EP	24EP	27EP	16EP	19EP	22EP	25EP	143
142	11DP	12DP	14DP	16EP	21DP	20EP	23EP	23EP	18DP	20EP	24EP	24EP	20EP	20EP	24EP	27EP	16EP	18EP	22EP	25EP	142
141	11DP	12DP	14DP	15EP	20DP	20DP	23DP	23EP	18DP	20EP	23EP	23EP	20EP	19EP	24EP	27EP	15EP	18EP	21EP	24EP	141
140	10CP	12CP	14DP	15EP	20DP	20DP	22DP	22EP	18DP	19DP	23DP	23EP	19EP	19EP	24EP	26EP	15EP	18EP	21EP	24EP	140
139	10CP	12CP	13DP	15DP	20DP	20DP	22DP	22EP	18DP	19DP	23DP	23EP	19DP	19EP	23EP	26EP	15EP	18EP	21EP	24EP	139
138	10CP	12CP	13DP	15DP	20DP	19DP	22DP	22EP	17DP	19DP	22DP	22EP	19DP	19EP	23EP	26EP	15EP	17EP	21EP	23EP	138
137	10CP	12CP	13DP	15DP	19DP	19DP	21DP	21DP	17DP	18DP	22DP	22DP	19DP	19EP	23EP	25EP	14DP	17EP	21EP	23EP	137
136	10CP	11CP	13DP	14DP	19DP	19DP	21DP	21DP	17DP	18DP	22DP	22DP	19DP	18DP	22EP	25EP	14DP	17EP	20EP	23EP	136
135	10CP	11CP	13CP	14DP	19DP	19DP	21DP	21DP	17CP	18DP	21DP	21DP	18DP	18DP	22EP	25EP	14DP	16EP	20EP	22EP	135
134	10BP	11CP	13CP	14DP	19DP	18DP	21DP	20DP	16CP	17DP	21DP	21DP	18DP	18DP	22DP	24DP	14DP	16DP	20EP	22EP	134
133	10BP	11BP	12CP	14DP	18DP	18DP	20DP	20DP	16CP	17DP	21DP	21DP	18DP	18DP	22DP	24DP	13DP	16DP	20EP	22EP	133
132	10BP	11BP	12CP	13DP	18DP	18DP	20DP	20DP	16CP	17DP	20DP	20DP	18DP	17DP	21DP	24DP	13DP	16DP	19EP	21EP	132
131	9BP	11BP	12CP	13DP	18CP	18DP	20DP	19DP	16CP	16DP	20DP	20DP	18DP	17DP	21DP	23DP	13DP	15DP	19EP	21EP	131
130	9BP	11BP	12CP	13DP	18CP	17CP	19DP	19DP	15CP	16DP	19DP	20DP	17DP	17DP	21DP	23DP	13DP	15DP	19EP	21EP	130
129	9AP	10BP	12CP	13DP	17CP	17CP	19CP	19DP	15CP	16DP	19DP	19DP	17DP	17DP	20DP	23DP	12DP	15DP	19EP	20DP	129
128	9AP	10BP	11CP	13DP	17CP	17CP	19CP	18DP	15CP	15CP	19DP	19DP	17CP	17DP	20DP	22DP	12DP	15DP	18EP	20DP	128
127	9AP	10BP	11CP	12CP	17CP	17CP	18CP	18DP	15CP	15CP	18DP	19DP	17CP	16DP	20DP	22DP	12DP	14DP	18EP	20DP	127
126	9AP	10AP	11BP	12CP	17CP	16CP	18CP	18DP	14CP	15CP	18CP	18DP	16CP	16DP	20DP	22DP	12DP	14DP	18DP	19DP	126
125	9AP	10AP	11BP	12CP	16CP	16CP	18CP	17DP	14CP	15CP	18CP	18DP	16CP	16DP	19DP	21DP	11CP	14DP	18DP	19DP	125
124	9AP	10AP	11BP	12CP	16CP	16CP	17CP	17DP	14CP	14CP	17CP	17DP	16CP	16DP	19DP	21DP	11CP	14DP	18DP	19DP	124
123	9AP	10AP	10BP	11CP	16CP	16CP	17CP	17DP	14CP	14CP	17CP	17DP	16CP	15DP	19DP	21DP	11CP	13DP	17DP	18DP	123
122	8AP	9AP	10BP	11CP	16CP	15CP	17CP	16DP	13CP	14CP	17CP	17DP	16CP	15DP	18DP	20DP	11CP	13DP	17DP	18DP	122
121	8AP	9AP	10BP	11CP	15CP	15CP	17CP	16CP	13BP	13CP	16CP	16CP	15CP	15DP	18DP	20DP	10CP	13CP	17DP	17DP	121
120	8AK	9AP	10BP	11CP	15BP	15CP	16CP	16CP	13BP	13CP	16CP	16CP	15CP	15DP	18DP	20DP	10CP	12CP	17DP	17DP	120
119	8	9AP	10BP	11CP	15BP	15CP	16CP	15CP	13BP	13CP	16CP	16CP	15CP	15DP	18DP	19DP	10CP	12CP	16DP	17DP	119
118	8	9AP	10BP	10CP	15BP	14BP	16CP	15CP	12BP	12CP	15CP	15CP	15CP	14CP	17DP	19DP	10CP	12CP	16DP	16DP	118
117	8	9AP	9AP	10CP	15BP	14BP	15CP	15CP	12BP	12CP	15CP	15CP	15CP	14CP	17CP	19DP	9CP	12CP	16DP	16DP	117
116	8	9AP	9AP	10BP	14BP	14BP	15CP	14CP	12BP	12CP	15CP	15CP	14CP	14CP	17CP	18DP	9CP	11CP	16DP	16DP	116
115	8	8AK	9AP	10BP	14BP	14BP	15CP	14CP	12BP	11CP	14CP	14CP	14CP	14CP	16CP	18CP	9CP	11CP	15DP	15CP	115
114	8	8	9AP	9BP	14BP	13BP	14CP	14CP	11BP	11BP	14CP	14CP	14CP	13CP	16CP	18CP	9CP	11CP	15DP	15CP	114
113	7	8	9AP	9BP	14BP	13BP	14CP	13CP	11BP	11BP	13CP	14CP	14CP	13CP	16CP	17CP	8BP	11CP	15DP	15CP	113
112	7	8	8AP	9BP	13AP	13BP	14BP	13CP	11BP	10BP	13CP	13CP	14CP	13CP	16CP	17CP	8BP	10CP	15DP	14CP	112
111	7	8	8AP	9BP	13AP	13BP	13BP	13CP	11BP	10BP	13CP	13CP	13BP	13CP	15CP	17CP	8BP	10BP	15DP	14CP	111
110	7	8	8AP	9BP	13AP	12BP	13BP	12CP	10BP	10BP	12CP	13CP	13BP	13CP	15CP	16CP	8BP	10BP	14CP	14CP	110
109	7	8	8AP	8BP	13AP	12BP	13BP	12CP	10BP	9BP	12BP	12CP	13BP	12CP	15CP	16CP	7BP	10BP	14CP	13CP	109
108	7	7	8AP	8BP	12AP	12AP	13BP	12CP	10BP	9BP	12BP	12CP	13BP	12CP	14CP	16CP	7BP	9BP	14CP	13CP	108
107	7	7	8AP	8AP	12AP	11AP	12BP	11CP	10AP	9BP	11BP	12CP	12BP	12CP	14CP	16CP	7BP	9BP	14CP	13BP	107
106	7	7	7AP	8AP	12AP	11AP	12BP	11CP	9AP	8BP	11BP	11CP	12BP	12CP	14CP	15CP	7AP	9BP	13CP	12BP	106
105	7	7	7AK	7AP	12AP	11AP	12BP	11BP	9AP	8BP	11BP	11CP	12BP	11CP	14CP	15CP	6AP	8BP	13CP	12BP	105
104	6	7	7	7AP	11AP	11AP	11BP	10BP	9AP	8BP	10BP	11BP	12BP	11CP	13CP	15CP	6AP	8BP	13CP	12BP	104
103	6	7	7	7AP	11AP	10AP	11BP	10BP	9AP	8BP	10BP	10BP	12BP	11CP	13CP	14BP	6AP	8AP	13CP	11BP	103
102	6	6	7	7AP	11AP	10AP	11BP	10BP	8AP	7BP	10BP	10BP	11BP	11CP	13CP	14BP	6AP	8AP	13CP	11BP	102
101	6	6	6	7AP	11AP	10AP	10AP	9BP	8AP	7BP	9BP	9BP	11BP	11CP	12BP	14BP	5AP	7AP	12CP	11BP	101
100	6	6	6	6AP	10AK	10AP	10AP	9BP	8AP	7AP	9BP	9BP	11BP	10CP	12BP	13BP	5AK	7AP	12CP	10AP	100
99	6	6	6	6AP	10	9AP	10AP	9BP	8AP	6AP	9BP	9BP	11BP	10BP	12BP	13BP	5	7AP	12CP	10AP	99
98	6	6	6	6AP	10	9AP	9AP	8BP	7AP	6AP	8BP	8BP	11BP	10BP	12BP	13BP	5	7AP	12BP	10AP	98
97	6	6	6	6AP	10	9AP	9AP	8BP	7AP	6AP	8BP	8BP	10BP	10BP	11BP	12BP	4	6AP	11BP	9AP	97
96	6	6	5	5AP	9	9AP	9AP	8BP	7AP	5AP	7BP	9BP	10BP	9BP	11BP	12BP	4	6AP	11BP	9AP	96
95	6	6	5	5AK	9	8AK	9AP	7BP	7AK	5AP	7AP	7BP	10AP	9BP	11BP	12BP	4	6AK	11BP	9AP	95
94	5	5	5	5	9	8	8AP	7BP	6	5AP	7AP	7BP	10AP	9BP	10BP	11BP	4	0	11BP	8AK	94
93	5	5	5	5	9	8	8AP	7BP	6	4AP	6AP	7BP	10AP	9BP	10BP	11BP	3	0	10BP	8	93
92	5	5	5	5	8	8	8AP	6AP	6	4AP	6AP	6BP	9AP	9BP	10BP	11BP	3	0	10BP	0	92
91	5	5	5	4	8	7	7AP	6AP	6	4AP	5AP	6BP	9AP	8BP	10BP	10BP	3	0	10BP	0	91
90	5	5	4	4	8	7	7AK	6AP	5	3AK	5AP	6BP	9AP	8BP	9BP	10BP	3	0	10BP	0	90
89	5	5	4	4	8	7	7	5AP	5	3	5AP	5AP	9AP	8BP	9BP	10BP	0	0	10AP	0	89
88	5	5	4	4	8	7	6	5AP	5	3	5AP	5AP	9AP	8BP	9BP	9BP	0	0	9AP	0	88
87	5	4	4	3	7	6	6	5AP	5	2	4AP	5AP	8AP	7BP	8BP	9AP	0	0	9AP	0	87
86	5	4	4	3	7	6	6	4AP	4	2	4AP	4AP	8AP	7BP	8BP	9AP	0	0	9AP	0	86
85	4	4	3	3	7	6	5	4AP	4	2	4AK	4AP	8AP	7BP	8BP	8AP	0	0	9AP	0	85
84	4	4	3	3	7	6	5	4AP	4	0	3	4AP	8AP	7AP	8AP	8AP	0	0	8AP	0	84
83	4	4	3	3	6	5	5	3AP	4	0	3	3AP	7AP	7AP	7AP	8AP	0	0	8AP	0	83
82	4	4	3	2	6	5	5	3AP	3	0	3	3AP	7AP	6AP	7AP	7AP	0	0	8AK	0	82
81	4	4	3	2	6	5	4	3AP	3	0	2	3AP	7AP	6AP	7AP	7AP	0	0	8	0	81
80	4	3	3	2	6	5	4	2AK	3	0	2	2AK	7AK	6AP	6AP	7AP	0	0	0	0	80
79	4	3	2	2	5	4	4	2	3	0	0	2	7	6AP	6AP	6AP	0	0	0	0	79
78	4	3	2	1	5	4	3	2	2	0	0	0	6	5AP	6AP	6AP	0	0	0	0	78
77	4	3	2	1	5	4	3	1	2	0	0	0	6	5AP	6AP	6AP	0	0	0	0	77
76	3	3	2	1	5	4	3	1	2	0	0	0	6	5AP	5AP	5AP	0	0	0	0	76
75	3	3	2	1	4	3	2	1	2	0	0	0	6	5AK	5AP	5AP	0	0	0	0	75
74	3	3	1	0	4	3	2	0	0	0	0	0	6	5	5AP	5AP	0	0	0	0	74
73	3	2	1	0	4	3	2	0	0	0	0	0	5	4	4AP	4AP	0	0	0	0	73
72	3	2	1	0	4	3	1	0	0	0	0	0	5	4	4AK	4AK	0	0	0	0	72
71	3	2	1	0	3	2	1	0	0	0	0	0	5	4	4	4	0	0	0	0	71
70	3	2	1	0	3	2	1	0	0	0	0	0	5	4	0	0	0	0	0	0	70
69	3	2	0	0	3	2	0	0	0	0	0	0	5	0	0	0	0	0	0	0	69
68	3	2	0	0	3	2	0	0	0	0	0	0	4	0	0	0	0	0	0	0	68
67	2	2	0	0	2	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	67
66	2	1	0	0	2	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	66
65	2	1	0	0	2	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	65
64	2	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	64
63	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63
62	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62
61	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61
60	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60
59	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59
58	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58
57	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57
56	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56
55	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55
54	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54
53	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53
52	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52
51	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51
50	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	

8.5.2 COMPOSITE BOW ATTACK TABLE

Weapon Type:
Missile

Length:
2.5-4 feet

Weight:
2-3 pounds

Fumble Range:
01-04 UM

Range (OB Mod):
1'-10' (+25)
11'-100' (+0)
101'-200' (–35)
201'-300' (–60)



8.5.3 HEAVY CROSSBOW ATTACK TABLE

Weapon Type: Missile

Length: 3.5-4.5 feet

Weight: 8-12 pounds

Fumble Range: 01-05 UM

Range (OB Mod):
1'-20' (+30)
21'-100' (+0)
101'-200' (- 25)
201'-300' (- 40)
301'-360' (-55)



	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
150	14EP	16EP	18EP	20EP	24EP	24EP	27EP	27EP	23EP	25EP	29EP	29EP	23EP	23EP	28EP	31EP	25EP	28EP	31EP	33EP	150
149	14EP	16EP	18EP	20EP	24EP	24EP	27EP	27EP	23EP	25EP	29EP	29EP	23EP	23EP	28EP	31EP	25EP	28EP	31EP	33EP	149
148	14EP	16EP	18EP	20EP	24EP	24EP	27EP	27EP	23EP	25EP	29EP	29EP	23EP	23EP	28EP	31EP	25EP	28EP	31EP	33EP	148
147	14EP	16EP	18EP	20EP	24EP	24EP	27EP	26EP	23EP	24EP	28EP	28EP	23EP	23EP	28EP	31EP	24EP	27EP	31EP	32EP	147
146	14EP	16EP	18EP	20EP	23EP	23EP	26EP	26EP	22EP	24EP	28EP	28EP	23EP	23EP	27EP	30EP	24EP	27EP	30EP	32EP	146
145	14EP	16EP	18EP	19EP	23EP	23EP	26EP	26EP	22EP	24EP	28EP	28EP	22EP	22EP	27EP	30EP	24EP	27EP	30EP	31EP	145
144	14DP	16DP	17EP	19EP	23EP	23EP	26EP	25EP	22EP	23EP	27EP	27EP	22EP	22EP	27EP	30EP	23EP	26EP	30EP	31EP	144
143	14DP	15DP	17EP	19EP	23EP	23EP	25EP	25EP	22EP	23EP	27EP	27EP	22EP	22EP	26EP	29EP	23EP	26EP	29EP	31EP	143
142	13DP	15DP	17DP	19EP	22EP	22EP	25EP	25EP	21EP	23EP	27EP	27EP	22EP	22EP	26EP	29EP	23EP	25EP	29EP	30EP	142
141	13DP	15DP	17DP	18EP	22EP	22EP	25EP	24EP	21DP	22EP	26EP	26EP	22EP	21EP	26EP	29EP	22EP	25EP	29EP	30EP	141
140	13DP	15DP	17DP	18EP	22EP	22EP	24EP	24EP	21DP	22EP	26EP	26EP	21EP	21EP	26EP	28EP	22EP	25EP	28EP	29EP	140
139	13DP	15DP	16DP	18EP	22EP	22EP	24EP	24EP	21DP	22EP	25EP	25EP	21EP	21EP	25EP	28EP	22EP	24EP	28EP	29EP	139
138	13CP	15CP	16DP	18DP	21DP	21DP	24DP	23EP	20DP	21EP	25EP	25EP	21EP	21EP	25EP	28EP	21EP	24EP	28EP	29EP	138
137	13CP	14CP	16DP	17DP	21DP	21DP	23DP	23EP	20DP	21DP	25DP	25EP	21DP	20EP	25EP	27EP	21EP	24EP	27EP	28EP	137
136	13CP	14CP	16DP	17DP	21DP	21DP	23DP	23EP	20DP	21DP	24DP	24EP	20DP	20EP	24EP	27EP	21EP	23EP	27EP	28EP	136
135	13CP	14CP	16DP	17DP	21DP	21DP	23DP	22DP	19DP	20DP	24DP	24EP	20DP	20EP	24EP	27EP	20EP	23EP	27EP	27EP	135
134	12CP	14CP	15DP	17DP	20DP	20DP	22DP	22DP	19DP	20DP	24DP	24DP	20DP	20DP	24EP	26EP	20EP	22EP	26EP	27EP	134
133	12CP	14CP	15CP	17DP	20DP	20DP	22DP	22DP	19DP	20DP	23DP	23DP	20DP	20DP	23DP	26EP	20DP	22EP	26EP	27EP	133
132	12CP	14CP	15CP	16DP	20DP	20DP	22DP	21DP	19CP	19DP	23DP	23DP	20DP	19DP	23DP	26EP	19DP	22EP	26EP	26EP	132
131	12CP	13CP	15CP	16DP	20DP	19DP	22DP	21DP	18CP	19DP	22DP	23DP	19DP	19DP	23DP	25EP	19DP	21EP	25EP	26EP	131
130	12BP	13BP	15CP	16DP	19DP	19DP	21DP	21DP	18CP	19DP	22DP	22DP	19DP	19DP	23DP	25DP	19DP	21DP	25EP	25EP	130
129	12BP	13BP	14CP	16DP	19DP	19DP	21DP	20DP	18CP	18DP	22DP	22DP	19DP	19DP	22DP	25DP	18DP	21DP	25EP	25EP	129
128	12BP	13BP	14CP	15DP	19DP	19DP	21DP	20DP	18CP	18DP	21DP	21DP	19DP	18DP	22DP	24DP	18DP	20DP	24EP	25EP	128
127	12BP	13BP	14CP	15DP	19DP	18DP	20DP	20DP	17CP	18DP	21DP	21DP	18DP	18DP	22DP	24DP	17DP	20DP	24EP	24EP	127
126	11BP	13BP	14CP	15DP	18DP	18DP	20DP	19DP	17CP	17DP	21DP	21DP	18DP	18DP	21DP	24DP	17DP	19DP	24EP	24EP	126
125	11BP	13BP	14CP	15CP	18CP	18DP	20CP	19DP	17CP	17DP	20DP	20DP	18DP	18DP	21DP	23DP	17DP	19DP	23EP	23EP	125
124	11AP	12BP	13CP	14CP	18CP	18CP	19CP	19DP	16CP	17CP	20DP	20DP	18CP	17DP	21DP	23DP	16DP	19DP	23EP	23EP	124
123	11AP	12BP	13BP	14CP	18CP	17CP	19CP	18DP	16CP	16CP	20DP	20DP	18CP	17DP	21DP	23DP	16DP	18DP	23EP	23DP	123
122	11AP	12AP	13BP	14CP	17CP	17CP	19CP	18DP	16CP	16CP	19CP	19DP	17CP	17DP	20DP	22DP	16DP	18DP	23DP	22DP	122
121	11AP	12AP	13BP	14CP	17CP	17CP	18CP	18DP	16CP	16CP	19CP	19DP	17CP	17DP	20DP	22DP	15DP	18DP	22DP	22DP	121
120	11AP	12AP	13BP	14CP	17CP	17CP	18CP	17DP	15CP	15CP	18CP	19DP	17CP	17DP	20DP	22DP	15DP	17DP	22DP	21DP	120
119	11AP	12AP	12BP	13CP	17CP	16CP	18CP	17DP	15CP	15CP	18CP	18DP	17CP	16DP	19DP	21DP	15CP	17DP	22DP	21DP	119
118	10AP	11AP	12BP	13CP	16CP	16CP	17CP	17CP	15CP	15CP	18CP	18DP	16CP	16DP	19DP	21DP	14CP	16DP	21DP	21DP	118
117	10AP	11AP	12BP	13CP	16CP	16CP	17CP	16CP	15BP	14CP	17CP	17CP	16CP	16DP	19DP	21DP	14CP	16DP	21DP	20DP	117
116	10AP	11AP	12BP	13CP	16CP	16CP	17CP	16CP	14BP	14CP	17CP	17CP	16CP	16DP	18DP	20DP	14CP	16DP	21DP	20DP	116
115	10AK	11AP	12BP	12CP	16CP	15CP	17CP	16CP	14BP	14CP	17CP	17CP	16CP	15DP	18DP	20DP	13CP	15DP	20DP	19DP	115
114	10	11AP	11BP	12CP	15CP	15CP	16CP	15CP	14BP	13CP	16CP	16CP	16CP	15CP	18CP	20DP	13CP	15CP	20DP	19DP	114
113	10	11AP	11AP	12BP	15CP	15CP	16CP	15CP	13BP	13CP	16CP	16CP	15CP	15CP	18CP	19DP	13CP	15CP	20DP	19DP	113
112	10	10AP	11AP	12BP	15BP	14CP	16CP	15CP	13BP	13CP	15CP	16CP	15CP	15CP	17CP	19DP	12CP	14CP	19DP	18DP	112
111	10	10AP	11AP	11BP	15BP	14CP	15CP	14CP	13BP	12CP	15CP	15CP	15CP	14CP	17CP	19DP	12CP	14CP	19DP	18DP	111
110	9	10AK	11AP	11BP	14BP	14BP	15CP	14CP	13BP	12CP	15CP	15CP	15CP	14CP	17CP	18DP	12CP	13CP	19DP	17DP	110
109	9	10	10AP	11BP	14BP	14BP	15CP	14CP	12BP	12CP	14CP	15CP	14CP	14CP	16CP	18CP	11CP	13CP	18DP	17DP	109
108	9	10	10AP	11BP	14BP	13BP	14CP	13CP	12BP	11BP	14CP	14CP	14CP	14CP	16CP	18CP	11CP	13CP	18DP	17DP	108
107	9	10	10AP	10BP	14BP	13BP	14BP	13CP	12BP	11BP	14CP	14CP	14CP	13CP	16CP	17CP	11BP	12CP	18DP	16DP	107
106	9	10	10AP	10BP	13BP	13BP	14BP	13CP	12BP	11BP	13CP	13CP	14BP	13CP	16CP	17CP	10BP	12CP	17DP	16DP	106
105	9	9	10AP	10BP	13BP	13BP	13BP	12CP	11BP	10BP	13CP	13CP	14BP	13CP	15CP	17CP	10BP	12CP	17DP	15DP	105
104	9	9	9AP	10BP	13AP	12BP	13BP	12CP	11BP	10BP	13BP	13CP	13BP	13CP	15CP	16CP	9BP	11BP	17DP	15CP	104
103	9	9	9AP	10AP	13AP	12BP	13BP	12CP	11AP	10BP	12BP	12CP	13BP	13CP	15CP	16CP	9BP	11BP	16CP	15CP	103
102	8	9	9AP	9AP	12AP	12BP	12BP	11CP	10AP	9BP	12BP	12CP	13BP	12CP	14CP	16CP	9BP	10BP	16CP	14CP	102
101	8	9	9AP	9AP	12AP	12BP	12BP	11BP	10AP	9BP	11BP	12CP	13BP	12CP	14CP	15CP	8AP	10BP	16CP	14CP	101
100	8	9	9AK	9AP	12AP	11AP	12BP	11BP	10AP	9BP	11BP	11CP	13BP	12CP	14CP	15CP	8AP	10BP	15CP	13CP	100
99	8	8	8	9AP	12AP	11AP	11BP	10BP	10AP	8BP	11BP	11BP	12BP	12CP	13CP	15CP	8AP	9BP	15CP	13CP	99
98	8	8	8	8AP	11AP	11AP	11BP	10BP	9AP	8BP	10BP	11BP	12BP	11CP	13BP	14CP	7AP	9BP	15CP	13CP	98
97	8	8	8	8AP	11AP	11AP	11AP	10BP	9AP	8BP	10BP	10BP	12BP	11CP	13BP	14BP	7AP	9BP	15CP	12BP	97
96	8	8	8	8AP	11AP	10AP	11AP	9BP	9AP	7BP	10BP	10BP	12BP	11CP	13BP	14BP	7BP	8AP	14CP	12BP	96
95	8	8	8	8AP	11AK	10AP	10AP	9BP	9AP	7BP	9BP	9BP	11BP	11CP	12BP	13BP	6AK	8AP	14CP	11BP	95
94	7	8	7	7AP	10	10AP	10AP	9BP	8AP	7AP	9BP	9BP	11BP	10BP	12BP	13BP	6	7AP	14CP	11BP	94
93	7	7	7	7AP	10	9AP	10AP	8BP	8AP	6AP	8BP	9BP	11BP	10BP	12BP	13BP	6	7AP	13CP	11BP	93
92	7	7	7	7AP	10	9AP	9AP	8BP	8AP	6AP	8BP	8BP	11BP	10BP	11BP	12BP	5	7AP	13CP	10BP	92
91	7	7	7	7AP	10	9AP	9AP	8BP	7AP	6AP	8BP	8BP	11BP	10BP	11BP	12BP	5	6AP	13BP	10AP	91
90	7	7	7	7AK	9	9AK	9AP	7BP	7AK	5AP	7AP	8BP	10BP	10BP	11BP	12BP	5	6AK	12BP	9AP	90
89	7	7	6	6	9	8	8AP	7AP	7	5AP	7AP	7BP	10BP	9BP	11BP	11BP	4	0	12BP	9AP	89
88	7	7	6	6	9	8	8AP	7AP	7	5AP	7AP	7BP	10AP	9BP	10BP	11BP	4	0	12BP	9AP	88
87	7	7	6	6	9	8	8AP	6AP	6	4AP	6AP	7BP	10AP	9BP	10BP	11BP	4	0	11BP	8AK	87
86	6	6	6	6	8	8	7AP	6AP	6	4AP	6AP	6BP	9AP	9BP	10BP	10BP	3	0	11BP	8	86
85	6	6	6	5	8	7	7AK	6AP	6	4AK	6AP	6BP	9AP	8BP	9BP	10BP	3	0	11BP	0	85
84	6	6	5	5	8	7	7	5AP	6	3	5AP	5AP	9AP	8BP	9BP	10BP	0	0	10BP	0	84
83	6	6	5	5	8	7	6	5AP	5	3	5AP	5AP	9AP	8BP	9BP	9BP	0	0	10BP	0	83
82	6	6	5	5	7	7	6	5AP	5	3	4AP	5AP	9AP	8BP	8BP	9BP	0	0	10AP	0	82
81	6	6	5	4	7	6	6	4AP	5	2	4AP	4AP	8AP	7BP	8AP	9BP	0	0	9AP	0	81
80	6	5	5	4	7	6	6	4AP	4	2	4AK	4AP	8AP	7BP	8AP	8AP	0	0	9AP	0	80
79	6	5	4	4	7	6	5	4AP	4	0	3	4AP	8AP	7BP	8AP	8AP	0	0	9AP	0	79
78	5	5	4	4	6	6	5	3AP	4	0	3	3AP	8AP	7AP	7AP	8AP	0	0	8AP	0	78
77	5	5	4	4	6	5	5	3AP	4	0	3	3AP	7AP	7AP	7AP	7AP	0	0	8AK	0	77
76	5	5	4	3	6	5	4	3AP	3	0	2	3AP	7AP	6AP	7AP	7AP	0	0	8	0	76
75	5	5	4	3	6	5	4	2AK	3	0	2	2AK	7AK	6AP	6AP	7AP	0	0	0	0	75
74	5	4	3	3	5	4	4	2	3	0	0	2	7	6AP	6AP	6AP	0	0	0	0	74
73	5	4	3	3	5	4	3	2	3	0	0	0	7	6AP	6AP	6AP	0	0	0	0	73
72	5	4	3	2	5	4	3	1	2	0	0	0	6	5AP	6AP	6AP	0	0	0	0	72
71	5	4	3	2	5	4	3	1	2	0	0	0	6	5AP	5AP	5AP	0	0	0	0	71
70	4	4	3	2	4	3	2	1	2	0	0	0	6	5AK	5AP	5AP	0	0	0	0	70
69	4	4	2	2	4	3	2	0	0	0	0	0	6	5	5AP	5AP	0	0	0	0	69
68	4	4	2	1	4	3	2	0	0	0	0	0	5	4	4AP	4AP	0	0	0	0	68
67	4	3	2	1	4	3	1	0	0	0	0	0	5	4	4AK	4AK	0	0	0	0	67
66	4	3	2	1	3	2	1	0	0	0	0	0	5	4	4	4	0	0	0	0	66
65	4	3	2	1	3	2	1	0	0	0	0	0	5	4	0	0	0	0	0	0	65
64	4	3	1	0	3	2	0	0	0	0	0	0	5	0	0	0	0	0	0	0	64
63	4	3	1	0	3	2	0	0	0	0	0	0	4	0	0	0	0	0	0	0	63
62	3	3	1	0	2	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	62
61	3	2	1	0	2	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	61
60	3	2	1	0	2	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	60
59	3	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59
58	3	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58
57	3	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57
56	3	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56
55	3	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55
54	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54
53	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53
52	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52
51	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51
50	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
49	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
48	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
47	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
46	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
45	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	

8.54 LIGHT CROSSBOW ATTACK TABLE

Weapon Type: Missile

Length: 2-4 feet

Weight: 4-8 pounds

Fumble Range: 01-05 UM

Range (OB Mod):
1'-10' (+15)
11'-100' (+0)
101'-200' (–35)
201'-300' (–50)
301'-360' (–75)

	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
150	10EP	12EP	14EP	16EP	21EP	21EP	24EP	24EP	19EP	21EP	25EP	25EP	20EP	20EP	25EP	28EP	18EP	21EP	24EP	26EP	150
149	10DP	12EP	14EP	16EP	21EP	21EP	24EP	24EP	19EP	21EP	25EP	25EP	20EP	20EP	25EP	28EP	18EP	21EP	24EP	26EP	149
148	10DP	12DP	14EP	16EP	21EP	21EP	24EP	24EP	19EP	21EP	25EP	25EP	20EP	20EP	25EP	28EP	18EP	21EP	24EP	26EP	148
147	10CP	12DP	14EP	16EP	21EP	21EP	24EP	24EP	19EP	21EP	24EP	24EP	20EP	20EP	25EP	28EP	18EP	21EP	24EP	26EP	147
146	10CP	12DP	14DP	16EP	21EP	21EP	23EP	23EP	19EP	20EP	24EP	24EP	20EP	20EP	24EP	27EP	17EP	20EP	24EP	25EP	146
145	10CP	12CP	14DP	15EP	20EP	20EP	23EP	23EP	18EP	20EP	24EP	24EP	20EP	19EP	24EP	27EP	17EP	20EP	23EP	25EP	145
144	10CP	12CP	13DP	15EP	20EP	20EP	23EP	23EP	18EP	20EP	23EP	23EP	19EP	19EP	24EP	27EP	17EP	20EP	23EP	25EP	144
143	10BP	12CP	13DP	15DP	20DP	20DP	22DP	22EP	18DP	19EP	23EP	23EP	19EP	19EP	23EP	26EP	17EP	19EP	23EP	24EP	143
142	10BP	11CP	13DP	15DP	20DP	20DP	22DP	22EP	18DP	19EP	23EP	23EP	19EP	19EP	23EP	26EP	16EP	19EP	23EP	24EP	142
141	10BP	11CP	13CP	15DP	19DP	19DP	22DP	22EP	17DP	19EP	22EP	22EP	19EP	19EP	23EP	26EP	16EP	19EP	22EP	24EP	141
140	10BP	11BP	13CP	14DP	19DP	19DP	22DP	21EP	17DP	18DP	22DP	22EP	19EP	18EP	23EP	25EP	16EP	19EP	22EP	23EP	140
139	9BP	11BP	13CP	14DP	19DP	19DP	21DP	21DP	17DP	18DP	22DP	22EP	18DP	18EP	22EP	25EP	16EP	18EP	22EP	23EP	139
138	9BP	11BP	12CP	14DP	19DP	19DP	21DP	21DP	17DP	18DP	21DP	21EP	18DP	18EP	22EP	25EP	15EP	18EP	22EP	23EP	138
137	9AP	11BP	12CP	14DP	18DP	18DP	21DP	20DP	16DP	18DP	21DP	21DP	18DP	18DP	22EP	24EP	15EP	18EP	21EP	22EP	137
136	9AP	11BP	12CP	14DP	18DP	18DP	20DP	20DP	16DP	17DP	21DP	21DP	18DP	18DP	21EP	24EP	15DP	17EP	21EP	22EP	136
135	9AP	11BP	12CP	13DP	18DP	18DP	20DP	20DP	16CP	17DP	20DP	20DP	18DP	17DP	21DP	24EP	15DP	17EP	21EP	22EP	135
134	9AP	10BP	12BP	13DP	18CP	18DP	20DP	19DP	16CP	17DP	20DP	20DP	17DP	17DP	21DP	23EP	14DP	17EP	21EP	21EP	134
133	9AP	10BP	12BP	13CP	18CP	17CP	19CP	19DP	15CP	16DP	20DP	20DP	17DP	17DP	21DP	23DP	14DP	17DP	20EP	21EP	133
132	9AP	10AP	11BP	13CP	17CP	17CP	19CP	19DP	15CP	16DP	19DP	19DP	17DP	17DP	20DP	23DP	14DP	16DP	20EP	21EP	132
131	9AP	10AP	11BP	13CP	17CP	17CP	19CP	18DP	15CP	16DP	19DP	19DP	17DP	17DP	20DP	22DP	14DP	16DP	20EP	20EP	131
130	9AP	10AP	11BP	12CP	17CP	17CP	19CP	18DP	15CP	15DP	19DP	19DP	17DP	16DP	20DP	22DP	13DP	16DP	20EP	20EP	130
129	8AP	10AP	11BP	12CP	17CP	16CP	18CP	18DP	15CP	15DP	18DP	18DP	16DP	16DP	19DP	22DP	13DP	15DP	19EP	20EP	129
128	8AP	10AP	11BP	12CP	16CP	16CP	18CP	18DP	14CP	15CP	18DP	18DP	16CP	16DP	19DP	21DP	13DP	15DP	19EP	20EP	128
127	8AP	10AP	11BP	12CP	16CP	16CP	18CP	17DP	14CP	15CP	18DP	18DP	16CP	16DP	19DP	21DP	12DP	15DP	19EP	19DP	127
126	8AP	9AP	10BP	12CP	16CP	16CP	17CP	17DP	14CP	14CP	17CP	17DP	16CP	15DP	19DP	21DP	12DP	15DP	19DP	19DP	126
125	8AK	9AP	10BP	11BP	16BP	15CP	17CP	17CP	14CP	14CP	17CP	17DP	16CP	15DP	18DP	20DP	12DP	14DP	18DP	19DP	125
124	8	9AP	10AP	11BP	15BP	15CP	17CP	16CP	13CP	14CP	17CP	17DP	15CP	15DP	18DP	20DP	12CP	14DP	18DP	18DP	124
123	8	9AP	10AP	11BP	15BP	15BP	16CP	16CP	13CP	13CP	16CP	16DP	15CP	15DP	18DP	20DP	11CP	14DP	18DP	18DP	123
122	8	9AP	10AP	11BP	15BP	15BP	16CP	16CP	13CP	13CP	16CP	16DP	15CP	15DP	17DP	19DP	11CP	13DP	18DP	18DP	122
121	8	9AP	10AP	11BP	15BP	14BP	16CP	15CP	13BP	13CP	16CP	16CP	15CP	14DP	17DP	19DP	11CP	13DP	17DP	17DP	121
120	8	9AK	9AP	10BP	15BP	14BP	16CP	15CP	12BP	12CP	15CP	15CP	15CP	14CP	17DP	19DP	11CP	13CP	17DP	17DP	120
119	7	8	9AP	10BP	14BP	14BP	15CP	15CP	12BP	12CP	15CP	15CP	14CP	14CP	17CP	18DP	10CP	13CP	17DP	17DP	119
118	7	8	9AP	10BP	14BP	14BP	15BP	14CP	12BP	12CP	15CP	15CP	14CP	14CP	16CP	18DP	10CP	12CP	17DP	16DP	118
117	7	8	9AP	10BP	14AP	13BP	15BP	14CP	12BP	11CP	14CP	14CP	14CP	14CP	16CP	18DP	10CP	12CP	16DP	16DP	117
116	7	8	9AP	10BP	14AP	13BP	14BP	14CP	11BP	11CP	14CP	14CP	14CP	13CP	16CP	17DP	10CP	12CP	16DP	16DP	116
115	7	8	9AP	9AP	13AP	13BP	14BP	13CP	11BP	11CP	14CP	14CP	14CP	13CP	15CP	17CP	9CP	11CP	16DP	15DP	115
114	7	8	8AP	9AP	13AP	13BP	14BP	13CP	11BP	11BP	13CP	13CP	13CP	13CP	15CP	17CP	9CP	11CP	16DP	15DP	114
113	7	8	8AP	9AP	13AP	12AP	14BP	13CP	11BP	10BP	13CP	13CP	13CP	13CP	15CP	16CP	9BP	11CP	16DP	15DP	113
112	7	8	8AP	9AP	13AP	12AP	13BP	12CP	10BP	10BP	13CP	13CP	13BP	13CP	14CP	16CP	9BP	11CP	15DP	14CP	112
111	7	7	8AP	8AP	12AP	12AP	13BP	12BP	10BP	10BP	12CP	12CP	13BP	12CP	14CP	16CP	8BP	10BP	15DP	14CP	111
110	7	7	8AK	8AP	12AP	12AP	13BP	12BP	10BP	9BP	12CP	12CP	13BP	12CP	14CP	16CP	8BP	10BP	15CP	14CP	110
109	7	7	8	8AP	12AP	11AP	12BP	12BP	10BP	9BP	12BP	12CP	12BP	12CP	14CP	15CP	8BP	10BP	15CP	14CP	109
108	6	7	7	8AP	12AP	11AP	12AP	11BP	10BP	9BP	11BP	11CP	12BP	12CP	13CP	15CP	7BP	9BP	14CP	13CP	108
107	6	7	7	8AP	12AP	11AP	12AP	11BP	9AP	8BP	11BP	11CP	12BP	11CP	13CP	15CP	7BP	9BP	14CP	13CP	107
106	6	7	7	7AP	11AP	11AP	11AP	11BP	9AP	8BP	11BP	11CP	12BP	11CP	13CP	14CP	7AP	9BP	14CP	13CP	106
105	6	7	7	7AP	11AK	11AP	11AP	10BP	9AP	8BP	10BP	10CP	12BP	11CP	12CP	14CP	7AP	9BP	14CP	12CP	105
104	6	7	7	7AP	11	10AP	11AP	10BP	9AP	8BP	10BP	10BP	11BP	11CP	12BP	14BP	6AP	8BP	13CP	12BP	104
103	6	6	7	7AP	11	10AP	11AP	10BP	8AP	7BP	10BP	10BP	11BP	11CP	12BP	13BP	6AP	8AP	13CP	12BP	103
102	6	6	6	7AP	10	10AP	10AP	9BP	8AP	7BP	9BP	9BP	11BP	10BP	12BP	13BP	6AP	8AP	13CP	11BP	102
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100	6	6	6	6AK	10	9AK	10AP	9BP	8AP	6AP	9BP	9BP	11BP	10BP	11BP	12BP	5AK	7AP	12CP	11BP	100
99	6	6	6	6	10	9	9AP	8AP	7AP	6AP	8BP	8BP	10BP	10BP	11BP	12BP	5	7AP	12BP	10BP	99
98	5	6	6	6	9	9	9AP	8AP	7AP	6AP	8BP	8BP	10BP	10BP	10BP	12BP	5	7AP	12BP	10BP	98
97	5	6	6	6	9	9	9AP	8AP	7AP	5AP	8BP	8BP	10AP	9BP	10BP	11BP	5	6AP	12BP	10AP	97
96	5	6	5	5	9	8	8AP	7AP	7AP	5AP	7BP	7BP	10AP	9BP	10BP	11BP	4	6AP	11BP	9AP	96
95	5	5	5	5	9	8	8AK	7AP	6AK	5AP	7AP	7BP	10AP	9BP	10BP	11BP	4	6AK	11BP	9AP	95
94	5	5	5	5	9	8	8	7AP	6	5AP	7AP	7BP	9AP	9BP	9BP	10BP	4	0	11BP	9AP	94
93	5	5	5	5	8	8	8	6AP	6	4AP	6AP	6BP	9AP	9BP	9BP	10BP	4	0	11BP	8AP	93
92	5	5	5	5	8	7	7	6AP	6	4AP	6AP	6BP	9AP	8BP	9BP	10BP	3	0	10BP	8AK	92
91	5	5	5	4	8	7	7	6AP	6	4AP	6AP	6BP	9AP	8BP	8BP	9BP	3	0	10BP	8	91
90	5	5	4	4	8	7	7	6AP	5	3AK	5AP	5BP	9AP	8BP	8BP	9BP	3	0	10AP	0	90
89	5	5	4	4	7	7	6	5AP	5	3	5AP	5AP	8AP	8BP	8BP	9BP	0	0	10AP	0	89
88	4	4	4	4	7	6	6	5AP	5	3	5AP	5AP	8AP	7AP	8AP	8AP	0	0	9AP	0	88
87	4	4	4	4	7	6	6	5AP	5	2	4AP	4AP	8AP	7AP	7AP	8AP	0	0	9AP	0	87
86	4	4	4	3	7	6	6	4AP	4	2	4AP	4AP	8AP	7AP	7AP	8AP	0	0	9AP	0	86
85	4	4	4	3	6	6	5	4AK	4	2	4AK	4AP	8AK	7AP	7AP	7AP	0	0	9AP	0	85
84	4	4	3	3	6	5	5	4	4	0	3	3AP	7	7AP	6AP	7AP	0	0	8AP	0	84
83	4	4	3	3	6	5	5	3	4	0	3	3AP	7	6AP	6AP	7AP	0	0	8AP	0	83
82	4	4	3	3	6	5	4	3	3	0	3	3AP	7	6AP	6AP	6AP	0	0	8AK	0	82
81	4	4	3	2	6	5	4	3	3	0	2	2AP	7	6AP	6AP	6AP	0	0	8	0	81
80	4	3	3	2	5	4	4	2	3	0	2	2AK	7	6AK	5AP	6AP	0	0	0	0	80
79	4	3	3	2	5	4	3	2	3	0	0	2	6	6	5AP	5AP	0	0	0	0	79
78	4	3	2	2	5	4	3	2	2	0	0	0	6	5	5AP	5AP	0	0	0	0	78
77	3	3	2	2	5	4	3	1	2	0	0	0	6	5	4AP	5AP	0	0	0	0	77
76	3	3	2	1	4	3	3	1	2	0	0	0	6	5	4AP	4AP	0	0	0	0	76
75	3	3	2	1	4	3	2	1	2	0	0	0	6	5	4AK	4AK	0	0	0	0	75
74	3	3	2	1	4	3	2	0	0	0	0	0	5	5	0	4	0	0	0	0	74
73	3	3	2	1	4	3	2	0	0	0	0	0	5	4	0	0	0	0	0	0	73
72	3	2	1	0	3	2	1	0	0	0	0	0	5	4	0	0	0	0	0	0	72
71	3	2	1	0	3	2	1	0	0	0	0	0	5	4	0	0	0	0	0	0	71
70	3	2	1	0	3	2	1	0	0	0	0	0	5	4	0	0	0	0	0	0	70
69	3	2	1	0	3	2	0	0	0	0	0	0	4	0	0	0	0	0	0	0	69
68	3	2	1	0	3	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	68
67	2	2	0	0	2	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	67
66	2	2	0	0	2	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	66
65	2	2	0	0	2	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	65
64	2	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	64
63	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63
62	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62
61	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61
60	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60
59	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59
58	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58
57	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57
56	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56
55	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55
54	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54
53	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53
52	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52
51	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51
50	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
49	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
48	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	



A L

8.5.5 LONG BOW ATTACK TABLE

Weapon Type:
Missile

Length:
5-7 feet

Weight:
2-3 pounds

Fumble Range:
01-05 UM

Range (OB Mod):
1'-10' (+20)
11'-100' (+0)
101'-200' (–30)
201'-300' (–40)
301'-400' (–50)



	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
150	12EP	14EP	16EP	18EP	23EP	23EP	26EP	26EP	21EP	23EP	27EP	27EP	22EP	22EP	27EP	30EP	20EP	23EP	26EP	28EP	150
149	12EP	14EP	16EP	18EP	23EP	23EP	26EP	26EP	21EP	23EP	27EP	27EP	22EP	22EP	27EP	30EP	20EP	23EP	26EP	28EP	149
148	12EP	14EP	16EP	18EP	23EP	23EP	26EP	26EP	21EP	23EP	27EP	27EP	22EP	22EP	27EP	30EP	20EP	23EP	26EP	28EP	148
147	12DP	14DP	16EP	18EP	23EP	23EP	25EP	25EP	21EP	22EP	26EP	26EP	22EP	22EP	27EP	29EP	20EP	23EP	26EP	27EP	147
146	12DP	14DP	16EP	18EP	22EP	22EP	22EP	25EP	20EP	22EP	26EP	26EP	22EP	22EP	26EP	29EP	19EP	22EP	25EP	27EP	146
145	12DP	14DP	15DP	17EP	22EP	22EP	25EP	25EP	20EP	22EP	26EP	26EP	21EP	21EP	26EP	29EP	19EP	22EP	25EP	27EP	145
144	12CP	14CP	15DP	17EP	22EP	22EP	24EP	24EP	20EP	21EP	25EP	25EP	21EP	21EP	26EP	28EP	19EP	22EP	25EP	26EP	144
143	12CP	13CP	15DP	17EP	22EP	22EP	24EP	24EP	20EP	21EP	25EP	25EP	21EP	21EP	25EP	28EP	18EP	21EP	25EP	26EP	143
142	12CP	13CP	15DP	17EP	21EP	21EP	24EP	24EP	19DP	21EP	25EP	25EP	21EP	21EP	25EP	28EP	18EP	21EP	24EP	26EP	142
141	11CP	13CP	15DP	16DP	21EP	21EP	23EP	23EP	19DP	20EP	24EP	24EP	20EP	20EP	25EP	27EP	18EP	21EP	24EP	25EP	141
140	11CP	13CP	14DP	16DP	21EP	21EP	23EP	23EP	19DP	20EP	24EP	24EP	20EP	20EP	24EP	27EP	17EP	20EP	24EP	25EP	140
139	11CP	13CP	14CP	16DP	21EP	20EP	23EP	23EP	18DP	20DP	23DP	24EP	20EP	20EP	24EP	27EP	17EP	20EP	24EP	25EP	139
138	11CP	13CP	14CP	16DP	20EP	20EP	22EP	22EP	18DP	19DP	23DP	23EP	20DP	20EP	24EP	26EP	17EP	20EP	23EP	24EP	138
137	11BP	12BP	14CP	15DP	20EP	20EP	22EP	22EP	18DP	19DP	23DP	23DP	20DP	19EP	24EP	26EP	16EP	20EP	23EP	24EP	137
136	11BP	12BP	14CP	15DP	20EP	20EP	22EP	22EP	18DP	19DP	22DP	22DP	19DP	19EP	23EP	26EP	16EP	19EP	23EP	24EP	136
135	11BP	12BP	13CP	15DP	20EP	19EP	21EP	21EP	17DP	18DP	22DP	22DP	19DP	19DP	23EP	25EP	16DP	19EP	23EP	23EP	135
134	11BP	12BP	13CP	15DP	19EP	19EP	21EP	21EP	17DP	18DP	22DP	22DP	19DP	19DP	23DP	25EP	16DP	19EP	22EP	23EP	134
133	10BP	12BP	13CP	14DP	19EP	19EP	21EP	21EP	17CP	18DP	21DP	21DP	19DP	18DP	22DP	25DP	15DP	18DP	22EP	23EP	133
132	10BP	12BP	13CP	14DP	19DP	19EP	20EP	20EP	17CP	17DP	21DP	21DP	18DP	18DP	22DP	24DP	15DP	18DP	22EP	22EP	132
131	10BP	11BP	13CP	14DP	19DP	18DP	20DP	20EP	16CP	17DP	20DP	21DP	18DP	18DP	22DP	24DP	15DP	18DP	21EP	22EP	131
130	10BP	11BP	12BP	14CP	18DP	18DP	20DP	20EP	16CP	17DP	20DP	20DP	18DP	18DP	21DP	24DP	14DP	17DP	21EP	22EP	130
129	10AP	11BP	12BP	13CP	18DP	18DP	19DP	19EP	16CP	16DP	20DP	20DP	18DP	18DP	21DP	23DP	14DP	17DP	21EP	21EP	129
128	10AP	11AP	12BP	13CP	18DP	17DP	19DP	19DP	15CP	16CP	19DP	20DP	17DP	17DP	21DP	23DP	14DP	17DP	21EP	21EP	128
127	10AP	11AP	12BP	13CP	17DP	17DP	19DP	19DP	15CP	16CP	19DP	19DP	17DP	17DP	21DP	23DP	13DP	16DP	20EP	21DP	127
126	10AP	11AP	12BP	13CP	17DP	17DP	18DP	18DP	15CP	15CP	19DP	19DP	17CP	17DP	20DP	22DP	13DP	16DP	20EP	20DP	126
125	9AP	11AP	11BP	12CP	17DP	17DP	18DP	18DP	15CP	15CP	18CP	18DP	17CP	17DP	20DP	22DP	13DP	16DP	20DP	20DP	125
124	9AP	10AP	11BP	12CP	17DP	16DP	18DP	17DP	14CP	15CP	18CP	18DP	17CP	16DP	20DP	22DP	12DP	16DP	20DP	20DP	124
123	9AP	10AP	11BP	12CP	16DP	16DP	17DP	17DP	14CP	14CP	17CP	18DP	16CP	16DP	19DP	21DP	12DP	15DP	19DP	19DP	123
122	9AP	10AP	11BP	12CP	16DP	16DP	17DP	17DP	14CP	14CP	17CP	17DP	16CP	16DP	19DP	21DP	12CP	15DP	19DP	19DP	122
121	9AP	10AP	11BP	11CP	16DP	15DP	17DP	16DP	14CP	14CP	17CP	17CP	16CP	16DP	19DP	21DP	11CP	15DP	19DP	19DP	121
120	9AP	10AP	10BP	11BP	16DP	15DP	16DP	16DP	13CP	13CP	16CP	17CP	16CP	15DP	18DP	20DP	11CP	14DP	19DP	18DP	120
119	9AP	10AP	10AP	11BP	15DP	15DP	16DP	16DP	13CP	13CP	16CP	16CP	15CP	15DP	18DP	20DP	11CP	14CP	18DP	18DP	119
118	9AP	9AP	10AP	11BP	15DP	15DP	16DP	15DP	13BP	13CP	16CP	16CP	15CP	15CP	18DP	20DP	11CP	14CP	18DP	18DP	118
117	8AK	9AP	10AP	10BP	15CP	14DP	15DP	15DP	12BP	12CP	15CP	16CP	15CP	15DP	18CP	19DP	10CP	13CP	18DP	17DP	117
116	8	9AP	10AP	10BP	15CP	14DP	15DP	15DP	12BP	12CP	15CP	15CP	15CP	14CP	17CP	19DP	10CP	13CP	18DP	17DP	116
115	8	9AP	9AP	10BP	14CP	14CP	15DP	14DP	12BP	12CP	14CP	15CP	14CP	14CP	17CP	19CP	10CP	13CP	17DP	17DP	115
114	8	9AP	9AP	10BP	14CP	14CP	14CP	14DP	12BP	11CP	14CP	14CP	14CP	14CP	17CP	18CP	9CP	13CP	17DP	16DP	114
113	8	9AP	9AP	9BP	14CP	13CP	14CP	14DP	11BP	11CP	14CP	14CP	14CP	14CP	16CP	18CP	9CP	12CP	17DP	16DP	113
112	8	8AK	9AP	9BP	14CP	13CP	14CP	13DP	11BP	11BP	13CP	14CP	14CP	13CP	16CP	18CP	9CP	12CP	16DP	16CP	112
111	8	8	8AP	9BP	13CP	13CP	13CP	13DP	11BP	10BP	13CP	13CP	14CP	13CP	16CP	17CP	8CP	12CP	16DP	15CP	111
110	8	8	8AP	9BP	13CP	12CP	13CP	13DP	11BP	10BP	13CP	13CP	13CP	13CP	15CP	17CP	8CP	11CP	16DP	15CP	110
109	7	8	8AP	8AP	13CP	12CP	13CP	12DP	10BP	10BP	12CP	13CP	13CP	13CP	15CP	17CP	8BP	11BP	16DP	15CP	109
108	7	8	8AP	8AP	13CP	12CP	12CP	12DP	10BP	9BP	12CP	12CP	13BP	13CP	15CP	16CP	7BP	11BP	15CP	14CP	108
107	7	8	8AP	8AP	12CP	12CP	12CP	12CP	10BP	9BP	12BP	12CP	13BP	12CP	15CP	16CP	7BP	10BP	15CP	14CP	107
106	7	7	7AP	8AP	12CP	11CP	12CP	11CP	9BP	9BP	11BP	12CP	12BP	12CP	14CP	16CP	7BP	10BP	15CP	14CP	106
105	7	7	7AP	7AP	12CP	11CP	11CP	11CP	9BP	8BP	11BP	11CP	12BP	12CP	14CP	15CP	7BP	10BP	15CP	13CP	105
104	7	7	7AP	7AP	11BP	11CP	11CP	11CP	9BP	8BP	10BP	11BP	12BP	12CP	14CP	15CP	6BP	9BP	14CP	13CP	104
103	7	7	7AP	7AP	11BP	10CP	11CP	10CP	9AP	8BP	10BP	11BP	12BP	11CP	13CP	15BP	6BP	9BP	14CP	13BP	103
102	7	7	7AK	7AP	11BP	10CP	10CP	10CP	8AP	7BP	10BP	10BP	12BP	11CP	13CP	14BP	6BP	9BP	14CP	12BP	102
101	6	7	6	6AP	11AP	10CP	10CP	10CP	8AP	7BP	9BP	10BP	11BP	11CP	13BP	14BP	5AP	9BP	14CP	12BP	101
100	6	7	6	6AP	10AP	10BP	10CP	9CP	8AP	7BP	9BP	9BP	11BP	11CP	12BP	14BP	5AP	8AP	13CP	12BP	100
99	6	6	6	6AP	10AP	9BP	9CP	9CP	8AP	6BP	9BP	9BP	11BP	10CP	12BP	13BP	5AP	8AP	13CP	11BP	99
98	6	6	6	6AP	10AP	9BP	9CP	8CP	7AP	6BP	8BP	9BP	11BP	10CP	12BP	13BP	4AP	8AP	13CP	11BP	98
97	6	6	6	5AP	10AK	9AP	9BP	8CP	7AP	6AP	8BP	8BP	10BP	10CP	12BP	13BP	4AP	7AP	13CP	11BP	97
96	6	6	5	5AP	9	9AP	8BP	8CP	7AP	5AP	7BP	8BP	10BP	10BP	11BP	12BP	4AP	7AP	12BP	10AP	96
95	6	6	5	5AP	9	8AP	8BP	7CP	6AP	5AP	7BP	8BP	10BP	9BP	11BP	12BP	3AP	7AP	12BP	10AP	95
94	6	6	5	5AP	9	8AP	8BP	7CP	6AP	5AP	7BP	7BP	10BP	9BP	11BP	12BP	3AP	6AP	12BP	10AP	94
93	6	5	5	4AP	9	8AP	7AP	7CP	6AP	4AP	6AP	7BP	9BP	9BP	10BP	11BP	3AK	6AK	11BP	9AP	93
92	5	5	5	4AK	8	7AK	7AP	6CP	6AK	4AP	6AP	7BP	9BP	9BP	10BP	11BP	0	6	11BP	9AP	92
91	5	5	4	4	8	7	7AP	6CP	5	4AP	6AP	6BP	9AP	8BP	10BP	11BP	0	0	11BP	9AP	91
90	5	5	4	4	8	7	6AP	6CP	5	3AP	5AP	6BP	9AP	8BP	9BP	10BP	0	0	11BP	8AK	90
89	5	5	4	3	8	7	6AP	5BP	5	3AP	5AP	5AP	9AP	8BP	9BP	10BP	0	0	10BP	8	89
88	5	5	4	3	7	6	6AP	5BP	5	3AP	4AP	5AP	8AP	8BP	9BP	10BP	0	0	10BP	0	88
87	5	4	4	3	7	6	5AK	5BP	4	2AK	4AP	5AP	8AP	8BP	9BP	9AP	0	0	10AP	0	87
86	5	4	3	3	7	6	5	4BP	4	2	4AP	4AP	8AP	7BP	8BP	9AP	0	0	10AP	0	86
85	5	4	3	2	7	5	5	4BP	4	0	3AP	4AP	8AP	7BP	8BP	9AP	0	0	9AP	0	85
84	4	4	3	2	6	5	4	4AP	3	0	3AP	4AP	7AP	7BP	8AP	8AP	0	0	9AP	0	84
83	4	4	3	2	6	5	4	3AP	3	0	3AP	3AP	7AP	7BP	7AP	8AP	0	0	9AP	0	83
82	4	4	3	2	6	5	4	3AP	3	0	2AK	3AP	7AP	6BP	7AP	8AP	0	0	9AP	0	82
81	4	4	2	1	5	4	3	3AP	3	0	2	3AP	7AP	6BP	7AP	7AP	0	0	8AP	0	81
80	4	3	2	1	5	4	3	2AP	2	0	0	2AK	6AP	6AP	6AP	7AP	0	0	8AK	0	80
79	4	3	2	1	5	4	3	2AP	2	0	0	2	6AP	6AP	6AP	7AP	0	0	8	0	79
78	4	3	2	1	5	4	2	2AP	2	0	0	0	6AP	5AP	6AP	6AP	0	0	0	0	78
77	4	3	2	0	4	3	2	1AK	0	0	0	0	6AK	5AP	6AP	6AP	0	0	0	0	77
76	3	3	1	0	4	3	2	1	0	0	0	0	6	5AP	5AP	6AP	0	0	0	0	76
75	3	3	1	0	4	3	1	0	0	0	0	0	5	5AP	5AP	5AP	0	0	0	0	75
74	3	2	1	0	4	2	1	0	0	0	0	0	5	4AP	5AP	5AP	0	0	0	0	74
73	3	2	1	0	3	2	1	0	0	0	0	0	5	4AP	4AP	5AP	0	0	0	0	73
72	3	2	0	0	3	2	0	0	0	0	0	0	5	4AK	4AK	4AK	0	0	0	0	72
71	3	2	0	0	3	2	0	0	0	0	0	0	4	4	4	4	0	0	0	0	71
70	3	2	0	0	3	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	70
69	3	2	0	0	2	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	69
68	2	1	0	0	2	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	68
67	2	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67
66	2	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66
65	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65
64	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	64
63	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63
62	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62
61	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61
60	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60
59	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59
58	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58
57	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57
56	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56
55	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55
54	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54
53	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53
52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52
51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51
50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	

	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
150	6DP	8EP	10EP	12EP	17EP	17EP	20EP	20EP	15EP	17EP	21EP	21EP	15EP	15EP	20EP	23EP	14EP	17EP	20EP	22EP	150
149	6CP	8DP	10EP	12EP	17EP	17EP	20EP	20EP	15EP	17EP	21EP	21EP	15EP	15EP	20EP	23EP	14EP	17EP	20EP	22EP	149
148	6CP	8DP	10EP	12EP	17EP	17EP	20EP	20EP	15EP	17EP	21EP	21EP	15EP	15EP	20EP	23EP	14EP	17EP	20EP	22EP	148
147	6CP	8CP	10DP	12EP	17EP	17EP	20EP	20EP	15EP	17EP	21EP	21EP	15EP	15EP	20EP	23EP	14EP	17EP	20EP	22EP	147
146	6CP	8CP	10DP	12EP	17DP	17DP	19EP	19EP	15EP	16EP	20EP	20EP	15EP	15EP	20EP	22EP	14EP	17EP	20EP	21EP	146
145	6CP	8CP	10DP	12EP	16DP	16DP	19DP	19EP	15EP	16EP	20EP	20EP	15EP	15EP	19EP	22EP	13EP	16EP	19EP	21EP	145
144	6BP	8CP	10DP	11DP	16DP	16DP	19DP	19EP	14DP	16EP	20EP	20EP	15EP	15EP	19EP	22EP	13EP	16EP	19EP	21EP	144
143	6BP	8CP	10CP	11DP	16DP	16DP	19DP	18EP	14DP	16EP	19EP	19EP	14EP	14EP	19EP	22EP	13EP	16EP	19EP	21EP	143
142	6BP	8CP	9CP	11DP	16DP	16DP	18DP	18EP	14DP	15EP	19EP	19EP	14EP	14EP	19EP	21EP	13EP	16EP	19EP	20EP	142
141	6BP	8BP	9CP	11DP	16DP	15DP	18DP	18DP	14DP	15DP	19DP	19EP	14EP	14EP	18EP	21EP	13EP	15EP	19EP	20EP	141
140	6BP	8BP	9CP	11DP	15DP	15DP	18DP	17DP	14DP	15DP	18DP	18EP	14DP	14EP	18EP	21EP	12EP	15EP	18EP	20EP	140
139	6BP	7BP	9CP	11DP	15CP	15DP	17DP	17DP	13DP	15DP	18DP	18EP	14DP	14EP	18EP	21EP	12DP	15EP	18EP	19EP	139
138	6BP	7BP	9CP	10DP	15CP	15CP	17DP	17DP	13DP	14DP	18DP	18DP	14DP	14DP	18EP	20EP	12DP	15EP	18EP	19EP	138
137	6AP	7BP	9CP	10DP	15CP	15CP	17DP	17DP	13CP	14DP	18DP	17DP	14DP	13DP	18DP	20EP	12DP	14EP	18EP	19EP	137
136	6AP	7BP	9CP	10DP	15CP	14CP	17CP	16DP	13CP	14DP	17DP	17DP	13DP	13DP	17DP	20EP	11DP	14DP	18EP	19EP	136
135	6AP	7BP	9BP	10CP	14CP	14CP	16CP	16DP	13CP	14DP	17DP	17DP	13DP	13DP	17DP	19DP	11DP	14DP	17EP	18EP	135
134	5AP	7BP	8BP	10CP	14CP	14CP	16CP	16DP	12CP	13DP	17DP	17DP	13DP	13DP	17DP	19DP	11DP	14DP	17EP	18EP	134
133	5AP	7AP	8BP	10CP	14CP	14CP	16CP	15DP	12CP	13DP	16DP	16DP	13DP	13DP	17DP	19DP	11DP	13DP	17EP	18EP	133
132	5AP	7AP	8BP	9CP	14BP	13CP	15CP	15DP	12CP	13DP	16DP	16DP	13DP	13DP	16DP	19DP	11DP	13DP	17EP	18EP	132
131	5AP	7AP	8BP	9CP	14BP	13CP	15CP	15DP	12CP	13CP	16DP	16DP	13DP	12DP	16DP	18DP	10DP	13DP	17EP	17DP	131
130	5AP	7AP	8BP	9CP	13BP	13BP	15CP	14DP	12CP	12CP	15DP	15DP	13CP	12DP	16DP	18DP	10CP	13DP	16EP	17DP	130
129	5AP	7AP	8BP	9CP	13BP	13BP	15CP	14DP	11CP	12CP	15CP	15DP	12CP	12DP	16DP	18DP	10CP	13DP	16DP	17DP	129
128	5AP	6AP	8BP	9CP	13BP	13BP	14CP	14CP	11CP	12CP	15CP	15DP	12CP	12DP	16DP	18DP	10CP	12DP	16DP	16DP	128
127	5AP	6AP	7BP	9CP	13BP	12BP	14CP	14CP	11CP	11CP	15CP	14DP	12CP	12DP	15DP	17DP	10CP	12DP	16DP	16DP	127
126	5AP	6AP	7BP	8BP	12BP	12BP	14CP	13CP	11BP	11CP	14CP	14DP	12CP	12DP	15DP	17DP	9CP	12DP	16DP	16DP	126
125	5AK	6AP	7AP	8BP	12BP	12BP	13CP	13CP	11BP	11CP	14CP	14DP	12CP	12DP	15DP	17DP	9CP	12CP	15DP	16DP	125
124	5	6AP	7AP	8BP	12BP	12BP	13CP	13CP	10BP	11CP	14CP	13CP	12CP	11DP	15DP	17DP	9CP	11CP	15DP	15DP	124
123	5	6AP	7AP	8BP	12AP	11BP	13CP	12CP	10BP	10CP	13CP	13CP	11CP	11CP	14CP	16DP	9CP	11CP	15DP	15DP	123
122	5	6AP	7AP	8BP	12AP	11BP	13BP	12CP	10BP	10CP	13CP	13CP	11CP	11CP	14CP	16DP	8CP	11CP	15DP	15DP	122
121	5	6AP	7AP	8BP	11AP	11BP	12BP	12CP	10BP	10CP	13CP	13CP	11CP	11CP	14CP	16DP	8CP	11CP	15DP	15DP	121
120	5	6AK	7AP	7BP	11AP	11BP	12BP	11CP	10BP	10CP	12CP	12CP	11CP	11CP	14CP	15DP	8BP	10CP	14DP	14DP	120
119	5	6	6AP	7BP	11AP	11AP	12BP	11CP	9BP	9BP	12CP	12CP	11CP	11CP	13CP	15CP	8BP	10CP	14DP	14DP	119
118	4	6	6AP	7BP	11AP	10AP	11BP	11CP	9BP	9BP	12CP	12CP	11CP	10CP	13CP	15CP	8BP	10CP	14DP	14CP	118
117	4	5	6AP	7BP	11AP	10AP	11BP	10CP	9BP	9BP	11CP	11CP	11CP	10CP	13CP	15CP	7BP	10CP	14DP	13CP	117
116	4	5	6AP	7BP	10AP	10AP	11BP	10CP	9BP	9BP	11CP	11CP	10CP	10CP	13CP	14CP	7BP	9BP	14DP	13CP	116
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113	4	5	6AP	6AP	10AP	9AP	10BP	9BP	8AP	8BP	10BP	10CP	10BP	10CP	12CP	14CP	7AP	9BP	13CP	12CP	113
112	4	5	5AP	6AP	10AP	9AP	10BP	9BP	8AP	8BP	10BP	10CP	10BP	9CP	12CP	13CP	6AP	9BP	13CP	12CP	112
111	4	5	5AP	6AP	9AP	9AP	10AP	9BP	8AP	7BP	10BP	9CP	10BP	9CP	12CP	13CP	6AP	8BP	13CP	12CP	111
110	4	5	5AK	6AP	9AK	9AP	9AP	8BP	8AP	7BP	9BP	9CP	10BP	9CP	11CP	13CP	6AP	8BP	12CP	12BP	110
109	4	5	5	6AP	9	8AP	9AP	8BP	7AP	7BP	9BP	9BP	9BP	9CP	11CP	13CP	6AP	8BP	12CP	11BP	109
108	4	5	5	5AP	9	8AP	9AP	8BP	7AP	6BP	9BP	9BP	9BP	9CP	11BP	12CP	5AP	8AP	12CP	11BP	108
107	4	4	5	5AP	8	8AP	8AP	7BP	7AP	6AP	8BP	8BP	9BP	9CP	11BP	12BP	5AP	7AP	12CP	11BP	107
106	4	4	5	5AP	8	8AP	8AP	7BP	7AP	6AP	8BP	8BP	9BP	9CP	11BP	12BP	5AP	7AP	12CP	10BP	106
105	4	4	5	5AP	8	7AK	8AP	7BP	7AK	6AP	8BP	8BP	9BP	8BP	10BP	11BP	5AK	7AP	11CP	10BP	105
104	4	4	4	5AP	8	7	8AP	7BP	6	5AP	8BP	7BP	9BP	8BP	10BP	11BP	5	7AP	11BP	10BP	104
103	4	4	4	5AP	8	7	7AP	6BP	6	5AP	7BP	7BP	9BP	8BP	10BP	11BP	4	6AP	11BP	10AP	103
102	3	4	4	4AP	7	7	7AP	6AP	6	5AP	7AP	7BP	8BP	8BP	10BP	11BP	4	6AP	11BP	9AP	102
101	3	4	4	4AP	7	7	7AP	6AP	6	5AP	7AP	6BP	8BP	8BP	9BP	10BP	4	6AP	11BP	9AP	101
100	3	4	4	4AK	7	6	6AK	5AP	6	4AK	6AP	6BP	8BP	8BP	9BP	10BP	4	6AK	10BP	9AP	100
99	3	4	4	4	7	6	6	5AP	5	4	6AP	6BP	8BP	7BP	9BP	10BP	4	0	10BP	9AP	99
98	3	4	4	4	7	6	6	5AP	5	4	6AP	5BP	8AP	7BP	9BP	10BP	3	0	10BP	8AP	98
97	3	4	4	4	6	6	6	4AP	5	4	5AP	5BP	8AP	7BP	8BP	9BP	3	0	10BP	8AK	97
96	3	3	3	3	6	5	5	4AP	5	3	5AP	5AP	7AP	7BP	8BP	9BP	3	0	10BP	8	96
95	3	3	3	3	6	5	5	4AP	5	3	5AK	5AP	7AP	7BP	8BP	9BP	3	0	9AP	0	95
94	3	3	3	3	6	5	5	4AP	4	3	5	4AP	7AP	7BP	8BP	9BP	0	0	9AP	0	94
93	3	3	3	3	6	5	4	3AP	4	3	4	4AP	7AP	6BP	8BP	8BP	0	0	9AP	0	93
92	3	3	3	3	5	5	4	3AP	4	2	4	4AP	7AP	6BP	7AP	8BP	0	0	9AP	0	92
91	3	3	3	3	5	4	4	3AP	4	2	4	3AP	7AP	6BP	7AP	8AP	0	0	9AP	0	91
90	3	3	3	2	5	4	4	2AK	4	2	3	3AP	7AP	6AP	7AP	7AP	0	0	8AP	0	90
89	3	3	2	2	5	4	3	2	3	0	3	3AP	6AP	6AP	7AP	7AP	0	0	8AP	0	89
88	3	3	2	2	4	4	3	2	3	0	3	2AP	6AP	6AP	6AP	7AP	0	0	8AP	0	88
87	3	3	2	2	4	3	3	1	3	0	2	2AK	6AP	6AP	6AP	7AP	0	0	8AK	0	87
86	2	3	2	2	4	3	2	1	3	0	2	2	6AP	5AP	6AP	6AP	0	0	8	0	86
85	2	2	2	2	4	3	2	1	3	0	2	0	6AK	5AP	6AP	6AP	0	0	0	0	85
84	2	2	2	1	4	3	2	0	2	0	0	0	6	5AP	6AP	6AP	0	0	0	0	84
83	2	2	2	1	3	3	2	0	2	0	0	0	6	5AP	5AP	6AP	0	0	0	0	83
82	2	2	2	1	3	2	1	0	2	0	0	0	5	5AP	5AP	5AP	0	0	0	0	82
81	2	2	1	1	3	2	1	0	2	0	0	0	5	5AP	5AP	5AP	0	0	0	0	81
80	2	2	1	1	3	2	1	0	2	0	0	0	5	4AK	5AP	5AP	0	0	0	0	80
79	2	2	1	0	3	2	0	0	0	0	0	0	5	4	4AP	5AP	0	0	0	0	79
78	2	2	1	0	2	1	0	0	0	0	0	0	5	4	4AP	4AP	0	0	0	0	78
77	2	2	1	0	2	1	0	0	0	0	0	0	5	4	4AK	4AK	0	0	0	0	77
76	2	2	1	0	2	1	0	0	0	0	0	0	5	4	4	4	0	0	0	0	76
75	2	2	1	0	2	1	0	0	0	0	0	0	4	4	0	0	0	0	0	0	75
74	2	1	0	0	2	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	74
73	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73
72	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	72
71	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	71
70	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70
69	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69
68	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	68
67	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67
66	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66
65	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65
64	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	64
63	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63
62	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62
61	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61
60	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60
59	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59
58	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58
57	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57
56	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56
55	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55
54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54
53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53
52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52
51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51
50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	

8.5.6 SHORT BOW ATTACK TABLE

Weapon Type:
Missile

Length:
2.5-3.5 feet

Weight:
1.5-2 pounds

Fumble Range:
01-04 UM

Range (OB Mod):
1'-10' (+10)
11'-100' (+0)
101'-180' (–40)
181'-240' (–70)



8.5.7 SLING ATTACK TABLE

Weapon Type:
Missile

Length:
1.5-3 feet

Weight:
.5-1 feet

Fumble Range:
01-06 UM

Range (OB Mod):
1'-10' (+15)
11'-60' (+0)
61'-120' (–40)
121'-180' (–65)

	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
150	10EK	12EK	14EK	16EK	17EK	17EK	20EK	20EK	18EK	20EK	24EK	24EK	18EK	18EK	23EK	26EK	20EK	23EK	26EK	28EK	150
149	10EK	12EK	14EK	16EK	17EK	17EK	20EK	20EK	18EK	20EK	24EK	24EK	18EK	18EK	23EK	26EK	20EK	23EK	26EK	28EK	149
148	10EK	12EK	14EK	16EK	17EK	17EK	20EK	20EK	18EK	20EK	24EK	24EK	18EK	18EK	23EK	26EK	20EK	23EK	26EK	28EK	148
147	10DK	12EK	14EK	16EK	17EK	17EK	20EK	20EK	18EK	20EK	24EK	24EK	18EK	18EK	23EK	26EK	20EK	23EK	26EK	27EK	147
146	10DK	12DK	14EK	16EK	17EK	17EK	19EK	19EK	18EK	19EK	23EK	23EK	18EK	18EK	22EK	25EK	19EK	22EK	25EK	27EK	146
145	10DK	12DK	14DK	15EK	17EK	16EK	19EK	19EK	17EK	19EK	23EK	23EK	18EK	18EK	22EK	25EK	19EK	22EK	25EK	27EK	145
144	10CK	12DK	13DK	15EK	16EK	16EK	19EK	19EK	17EK	19EK	23EK	23EK	17EK	17EK	22EK	25EK	19EK	22EK	25EK	26EK	144
143	10CK	12DK	13DK	15EK	16DK	16DK	19DK	19EK	17EK	19EK	22EK	22EK	17EK	17EK	22EK	24EK	18EK	21EK	25EK	26EK	143
142	10CK	11CK	13DK	15EK	16DK	16DK	18DK	18EK	17DK	18EK	22EK	22EK	17DK	17EK	21EK	24EK	18EK	21EK	24EK	26EK	142
141	10CK	11CK	13DK	15DK	16DK	16DK	18DK	18EK	17DK	18EK	22EK	22EK	17DK	17EK	21EK	24EK	18EK	21EK	24EK	25EK	141
140	9CK	11CK	13DK	14DK	16DK	15DK	18DK	18EK	16DK	18EK	21EK	21EK	17DK	17DK	21EK	23EK	18EK	20EK	24EK	25EK	140
139	9BK	11CK	13CK	14DK	15DK	15DK	18DK	17DK	16DK	17DK	21DK	21EK	17DK	17DK	21DK	23EK	17DK	20EK	23EK	25EK	139
138	9BK	11CK	12CK	14DK	15DK	15DK	17DK	17DK	16DK	17DK	21DK	21EK	16DK	16DK	20DK	23EK	17DK	20EK	23EK	24EK	138
137	9BK	11CK	12CK	14DK	15DK	15DK	17DK	17DK	16DK	17DK	20DK	20EK	16DK	16DK	20DK	22EK	17DK	19EK	23EK	24EK	137
136	9BK	11BK	12CK	13DK	15DK	15DK	17DK	17DK	15DK	17DK	20DK	20EK	16DK	16DK	20DK	22DK	16DK	19DK	23EK	23EK	136
135	9BK	10BK	12CK	13DK	15CK	14DK	17DK	16DK	15DK	16DK	20DK	20DK	16DK	16DK	20DK	22DK	16DK	19DK	22EK	23EK	135
134	9AK	10BK	12CK	13DK	14CK	14CK	16CK	16DK	15CK	16DK	19DK	19DK	16CK	16DK	19DK	21DK	16DK	19DK	22EK	23EK	134
133	9AK	10BK	11CK	13DK	14CK	14CK	16CK	16DK	15CK	16DK	19DK	19DK	16CK	15DK	19DK	21DK	16DK	18DK	22EK	22EK	133
132	9AK	10BK	11CK	13DK	14CK	14CK	16CK	16DK	15CK	15DK	19DK	19DK	15CK	15DK	19DK	21DK	15DK	18DK	21EK	22EK	132
131	9AK	10BK	11BK	12CK	14CK	14CK	16CK	15DK	14CK	15DK	19DK	18DK	15CK	15DK	19DK	21DK	15DK	18DK	21EK	22EK	131
130	8AK	10AK	11BK	12CK	14CK	13CK	15CK	15DK	14CK	15DK	19DK	18DK	15CK	15DK	18DK	20DK	15DK	17DK	21EK	21DK	130
129	8AK	10AK	11BK	12CK	13CK	13CK	15CK	15DK	14CK	15DK	18DK	18DK	15CK	15DK	18DK	20DK	14CK	17DK	21EK	21DK	129
128	8AK	9AK	11BK	12CK	13BK	13CK	15CK	14DK	14CK	14CK	18DK	17DK	15CK	15CK	18DK	20DK	14CK	17DK	20DK	21DK	128
127	8AK	9AK	10BK	11CK	13BK	13CK	15CK	14DK	13CK	14CK	17DK	17DK	15CK	14CK	18CK	19DK	14CK	16DK	20DK	20DK	127
126	8AK	9AK	10BK	11CK	13BK	13BK	14CK	14CK	13CK	14CK	17CK	17CK	14CK	14CK	17CK	19DK	14CK	16DK	20DK	20DK	126
125	8AK	9AK	10BK	11CK	13BK	12BK	14CK	14CK	13CK	14CK	17CK	16DK	14CK	14CK	17CK	19DK	13CK	16CK	20DK	19DK	125
124	8	9AK	10BK	11CK	12BK	12BK	14CK	13CK	13CK	13CK	16CK	16DK	14CK	14CK	17CK	18DK	13CK	15CK	19DK	19DK	124
123	8	9AK	10AK	11CK	12AK	12BK	14CK	13CK	13CK	13CK	16CK	16DK	14CK	14CK	17CK	18DK	13CK	15CK	19DK	19DK	123
122	8	9AK	9AK	10CK	12AK	12BK	13BK	13CK	12BK	13CK	16CK	15DK	14BK	13CK	16CK	18DK	12CK	15CK	19DK	18DK	122
121	8	9AK	9AK	10BK	12AK	12BK	13BK	13CK	12BK	12CK	15CK	15DK	14BK	13CK	16CK	17CK	12CK	14CK	18DK	18DK	121
120	7	8AK	9AK	10BK	12AK	11BK	13BK	12CK	12BK	12CK	15CK	15DK	13BK	13CK	16CK	17CK	12CK	14CK	18DK	18DK	120
119	7	8	9AK	10BK	12AK	11AK	13BK	12CK	12BK	12CK	15CK	14CK	13BK	13CK	16CK	17CK	12BK	14CK	18DK	17DK	119
118	7	8	9AK	9BK	11AK	11AK	12BK	12CK	12BK	12CK	14CK	14CK	13BK	13CK	15CK	16CK	11BK	14CK	18DK	17DK	118
117	7	8	9AK	9BK	11AK	11AK	12BK	11CK	11BK	11CK	14CK	14CK	13BK	13CK	15CK	16CK	11BK	13BK	17DK	17DK	117
116	7	8	8AK	9BK	11AK	11AK	12BK	11CK	11BK	11CK	14CK	13CK	13BK	12CK	15CK	16CK	11BK	13BK	17DK	16CK	116
115	7	8	8AK	9BK	11AK	10AK	12AK	11CK	11BK	11BK	13CK	13CK	13BK	12CK	15BK	15CK	10BK	13BK	17DK	16CK	115
114	7	8	8AK	9BK	11	10AK	11AK	11BK	11BK	10BK	13CK	13CK	12BK	12BK	14BK	15CK	10BK	12BK	16DK	15CK	114
113	7	7	8AK	8BK	10	10AK	11AK	10BK	10BK	10BK	13CK	13CK	12BK	12BK	14BK	15CK	10AK	12BK	16CK	15CK	113
112	7	7	8AK	8AK	10	10AK	11AK	10BK	10BK	10BK	13CK	12CK	12BK	12BK	14BK	15CK	10AK	12BK	16CK	15CK	112
111	7	7	7AK	8AK	10	10AK	10AK	10BK	10BK	10BK	12CK	12CK	12BK	11BK	13BK	14BK	9AK	11BK	16CK	14CK	111
110	6	7	7AK	8AK	10	9AK	10AK	10BK	10AK	9BK	12BK	12CK	12AK	11BK	13BK	14BK	9AK	11BK	15CK	14CK	110
109	6	7	7	8AK	10	9	10AK	9BK	10AK	9BK	12BK	11CK	12AK	11BK	13BK	14BK	9AK	11AK	15CK	14BK	109
108	6	7	7	7AK	9	9	10AK	9BK	9AK	9BK	11BK	11CK	11AK	11BK	13BK	13BK	8AK	10AK	15CK	13BK	108
107	6	7	7	7AK	9	9	9AK	9BK	9AK	8BK	11BK	11CK	11AK	11BK	12BK	13BK	8AK	10AK	14CK	13BK	107
106	6	6	7	7AK	9	8	9AK	8BK	9AK	8BK	11BK	10CK	11AK	11BK	12BK	13BK	8	10AK	14CK	13BK	106
105	6	6	6	7AK	9	8	9AK	8AK	9AK	8BK	10BK	10CK	11AK	10BK	12BK	12BK	8	10AK	14CK	12BK	105
104	6	6	6	6AK	9	8	9	8AK	8AK	8BK	10BK	10CK	11AK	10BK	12BK	12BK	7	9AK	14CK	12BK	104
103	6	6	6	6AK	8	8	8	8AK	8AK	7AK	10BK	9CK	10AK	10AK	11BK	12BK	7	9AK	13CK	11BK	103
102	6	6	6	6AK	8	8	8	7AK	8AK	7AK	9BK	9BK	10AK	10AK	11AK	11BK	7	9AK	13BK	11AK	102
101	5	6	6	6AK	8	7	8	7AK	8AK	7AK	9BK	9BK	10AK	10AK	11AK	11BK	6	8	13BK	11AK	101
100	5	6	6	6AK	8	7	8	7AK	8AK	7AK	9BK	8BK	10AK	9AK	11AK	11BK	6	8	13BK	10AK	100
99	5	6	5	5	8	7	7	7AK	7	6AK	8BK	8BK	10	9AK	10AK	10BK	6	8	12BK	10AK	99
98	5	5	5	5	7	7	7	6AK	7	6AK	8AK	8BK	10	9AK	10AK	10BK	6	7	12BK	10AK	98
97	5	5	5	5	7	7	7	6AK	7	6AK	8AK	7BK	9	9AK	10AK	10AK	5	7	12BK	9AK	97
96	5	5	5	5	7	6	7	6AK	7	5AK	7AK	7BK	9	9AK	10AK	9AK	5	7	11BK	9	96
95	5	5	5	4	7	6	6	5AK	7	5AK	7AK	7BK	9	9AK	9AK	9AK	5	6	11BK	9	95
94	5	5	4	4	7	6	6	5	6	5	7AK	6BK	9	8	9AK	9AK	4	6	11BK	8	94
93	5	5	4	4	6	6	6	5	6	5	7AK	6BK	9	8	9AK	9AK	4	6	11AK	8	93
92	5	5	4	4	6	6	6	5	6	4	6AK	6BK	9	8	9AK	8AK	4	0	10AK	0	92
91	4	4	4	4	6	5	5	4	6	4	6AK	5BK	8	8	8AK	8AK	4	0	10AK	0	91
90	4	4	4	3	6	5	5	4	5	4	6AK	5BK	8	8	8AK	8AK	3	0	10AK	0	90
89	4	4	4	3	6	5	5	4	5	3	5	5BK	8	7	8	7AK	3	0	9AK	0	89
88	4	4	3	3	6	5	5	4	5	3	5	4AK	8	7	8	7AK	3	0	9AK	0	88
87	4	4	3	3	5	5	4	3	5	3	5	4AK	8	7	7	7AK	0	0	9AK	0	87
86	4	4	3	2	5	4	4	3	5	3	4	4AK	8	7	7	6AK	0	0	9	0	86
85	4	4	3	2	5	4	4	3	4	2	4	3AK	7	7	7	6AK	0	0	8	0	85
84	4	3	3	2	5	4	4	2	4	2	4	3AK	7	7	7	6	0	0	8	0	84
83	4	3	2	2	5	4	3	2	4	2	3	3AK	7	6	6	5	0	0	8	0	83
82	4	3	2	2	4	4	3	2	4	0	3	2AK	7	6	6	5	0	0	0	0	82
81	3	3	2	1	4	3	3	2	3	0	3	2AK	7	6	6	5	0	0	0	0	81
80	3	3	2	1	4	3	3	1	3	0	2	2	7	6	6	4	0	0	0	0	80
79	3	3	2	1	4	3	2	1	3	0	2	0	6	6	5	4	0	0	0	0	79
78	3	3	2	1	4	3	2	1	3	0	2	0	6	5	5	4	0	0	0	0	78
77	3	3	1	0	3	3	2	0	3	0	0	0	6	5	5	0	0	0	0	0	77
76	3	2	1	0	3	2	2	0	2	0	0	0	6	5	5	0	0	0	0	0	76
75	3	2	1	0	3	2	1	0	2	0	0	0	6	5	4	0	0	0	0	0	75
74	3	2	1	0	3	2	1	0	2	0	0	0	6	5	4	0	0	0	0	0	74
73	3	2	1	0	3	2	1	0	2	0	0	0	5	5	4	0	0	0	0	0	73
72	3	2	0	0	2	2	0	0	0	0	0	0	5	4	0	0	0	0	0	0	72
71	2	2	0	0	2	1	0	0	0	0	0	0	5	4	0	0	0	0	0	0	71
70	2	2	0	0	2	1	0	0	0	0	0	0	5	4	0	0	0	0	0	0	70
69	2	1	0	0	2	1	0	0	0	0	0	0	5	4	0	0	0	0	0	0	69
68	2	1	0	0	2	1	0	0	0	0	0	0	5	4	0	0	0	0	0	0	68
67	2	1	0	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	67
66	2	1	0	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	66
65	2	1	0	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	65
64	2	1	0	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	64
63	2	1	0	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	63
62	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62
61	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61
60	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60
59	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59
58	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58
57	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57
56	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56
55	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55
54	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54
53	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53
52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52
51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51
50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	



8.6.1 BATTLE AXE ATTACK TABLE

Weapon Type: Two-handed

Length: 2.5-4 feet

Weight: 5-9 pounds

Fumble Range: 01-05 UM

Range (OB Mod): —

	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
150	19EK	21EK	23EK	25EK	33ES	33ES	36ES	36ES	34ES	36ES	40ES	40ES	34ES	34ES	39ES	42ES	38ES	41ES	44ES	46ES	150
149	19ES	21ES	23ES	25ES	33ES	33ES	36ES	36ES	34ES	36ES	40ES	40ES	34ES	34ES	39ES	42ES	38ES	41ES	44ES	46ES	149
148	19EK	21EK	23EK	25EK	33ES	33ES	36ES	36ES	34ES	36ES	39ES	40ES	34ES	34ES	39ES	42ES	37ES	40ES	44ES	45ES	148
147	19ES	21ES	23ES	25ES	33ES	32ES	35ES	35ES	33ES	35ES	39ES	39ES	33ES	33ES	38ES	41ES	37ES	40ES	43ES	45ES	147
146	19EK	21EK	23EK	24EK	32ES	32ES	35ES	35ES	33ES	35ES	38ES	39ES	33ES	33ES	38ES	41ES	36ES	39ES	43ES	44ES	146
145	19ES	21ES	22ES	24ES	32ES	32ES	35ES	34ES	33ES	34ES	38ES	38ES	33ES	33ES	37ES	40ES	36ES	39ES	42ES	44ES	145
144	19EK	20EK	22EK	24EK	32ES	31ES	34ES	34ES	32ES	34ES	37ES	38ES	32ES	32ES	37ES	40ES	35ES	38ES	42ES	43ES	144
143	18ES	20ES	22ES	24ES	31ES	31ES	34ES	34ES	32ES	33ES	37ES	37ES	32ES	32ES	37ES	39ES	34ES	38ES	41ES	42ES	143
142	18EK	20EK	22EK	23EK	31ES	31ES	33ES	33ES	31ES	33ES	36ES	37ES	32ES	32ES	36ES	39ES	34ES	37ES	41ES	42ES	142
141	18ES	20ES	21ES	23ES	31ES	30ES	33ES	33ES	31ES	32ES	36ES	36ES	31ES	31ES	36ES	38ES	33ES	36ES	40ES	41ES	141
140	18DK	20DK	21EK	23EK	30ES	30ES	33ES	32ES	31ES	32ES	35ES	36ES	31ES	31ES	35ES	38ES	33ES	36ES	40ES	41ES	140
139	18DS	19DS	21ES	22ES	30EK	30ES	32ES	32ES	30ES	31ES	35ES	35ES	31ES	31ES	35ES	37ES	32ES	35ES	39ES	40ES	139
138	18DK	19DK	21DK	22EK	30ES	29EK	32ES	31ES	30ES	31ES	34ES	35ES	30ES	30ES	34ES	37ES	32ES	35ES	39ES	39ES	138
137	17DS	19DS	20DS	22ES	29EK	29ES	31EK	31ES	29ES	30ES	34ES	34ES	30ES	30ES	34ES	36ES	31ES	34ES	38ES	39ES	137
136	17DK	19DK	20DK	22EK	29DS	29DK	31DS	31ES	29ES	30ES	33ES	34ES	30ES	29ES	34ES	36ES	30ES	34ES	38ES	38ES	136
135	17DS	19DS	20DS	21DS	29DK	28DS	31DK	30EK	29DS	29ES	33ES	33ES	29ES	29ES	33ES	36ES	30ES	33ES	37ES	38ES	135
134	17DK	18DK	20DK	21DK	28DS	28DK	30DS	30ES	28DS	29ES	32ES	33ES	29DS	29ES	33ES	35ES	29ES	32ES	37ES	37ES	134
133	17DS	18DS	19DS	21DS	28DK	28DS	30DK	29EK	29DS	29ES	32ES	32ES	29DS	28ES	32ES	35ES	29ES	32ES	36ES	37ES	133
132	17CK	18DK	19DK	21DK	28DS	27DK	29DS	29DS	27DS	28DS	31DS	32ES	28DS	28ES	32ES	34ES	28ES	31ES	36ES	36ES	132
131	16CS	18CS	19DS	20DS	27DK	27DS	29DK	28DK	27DS	27DS	31DS	31ES	28DS	28DS	31ES	34ES	28ES	31ES	35ES	35ES	131
130	16CK	18CK	19DK	20DK	27DS	27DK	29DS	28DS	27DS	27DS	30DS	31DS	28DS	27DS	31ES	33ES	27ES	30ES	35ES	35ES	130
129	16CS	17CS	19DS	20DS	27DK	26DS	28DK	28DK	26DS	26DS	30DS	30DS	27DS	27DS	31DS	33ES	26ES	30ES	34ES	34ES	129
128	16CK	17CK	18DK	19DK	26DS	26DK	28DS	27DS	26DS	26DS	29DS	30DS	27DS	27DS	30DS	32ES	26DS	29DS	34ES	34ES	128
127	16CS	17CS	18CS	19DS	26DK	26DS	27DK	27DK	25DS	25DS	29DS	29DS	27DS	26DS	30DS	32DS	25DS	29DS	33ES	33ES	127
126	16CK	17CK	18CK	19DK	26DS	25DK	27DS	26DS	25DS	25DS	28DS	29DS	26DS	26DS	29DS	31DS	25DS	28DS	33ES	32ES	126
125	16CS	17CS	18CS	19DS	25DK	25DS	27DK	26DK	25DK	25DS	28DS	28DS	26DS	26DS	29DS	31DS	24DS	27DS	32ES	32ES	125
124	15CK	16CK	17CK	18DK	25DS	25DK	26DS	26DS	24DS	24DS	27DS	28DS	26DS	25DS	28DS	30DS	24DS	27DS	32ES	31ES	124
123	15BS	16CS	17CS	18DS	25DK	24DS	26DK	25DK	24DK	24DS	27DS	28DS	25DS	25DS	28DS	30DS	23DS	26DS	32ES	31ES	123
122	15BK	16CK	17CK	18DK	24CS	24DK	25DS	25DS	23CS	23DK	26DS	27DS	25DS	24DS	28DS	30DS	22DS	26DS	31ES	30DS	122
121	15BS	16BS	17CS	18DS	24CK	24CS	25CK	24DK	23CK	23DS	26DK	27DS	25DS	24DS	27DS	29DS	22DS	25DS	31ES	30DS	121
120	15BK	16BK	16CK	17CK	24CS	23CK	25CS	24DS	23CS	22DK	25DS	26DS	24CS	24DS	27DS	29DS	21DS	25DS	30DS	29DS	120
119	15AS	15BS	16CS	17CS	23CK	23CS	24CK	23DK	22CK	22DS	25DK	26DK	24CS	23DS	26DS	28DS	21DS	24DS	30DS	28DS	119
118	14AK	15BK	16CK	17CK	23CS	22CK	24CS	23DS	22CS	21DK	24DS	25DS	24CS	23DS	26DS	28DS	20DS	23DS	29DS	28DS	118
117	14AS	15BS	16CS	16CS	23CK	22CS	23CK	23DK	21CK	21DS	24DK	25DK	23CS	23DS	25DS	27DS	20DS	23DS	29DS	27DS	117
116	14AK	15BK	15CK	16CK	22CS	22CK	23CS	22DS	21CS	20DK	23DS	24DS	23CS	22DS	25DS	27DS	19DS	22DS	28DS	27DS	116
115	14AS	15AS	15BS	16CS	22CK	21CS	23CK	22DK	21CK	20CS	23DK	24DK	23CS	22DS	25DS	26DS	18DS	22DS	28DS	26DS	115
114	14AK	15AK	15BK	16CK	22CS	21CK	22CS	21CS	20CS	19CK	22CS	23DS	22CS	22DS	24DS	26DS	18DS	21DS	27DS	25DS	114
113	14AS	14AS	15BS	15CS	21CK	21CS	22CK	21CK	20CK	19CS	22CK	23DK	22CS	21DS	24DS	25DS	17DS	21DS	27DS	25DS	113
112	13AK	14AK	15BK	15CK	21CS	20CK	21CS	20CS	19CS	18CK	21CS	22DS	22CS	21DS	23DS	25DS	17DS	20DS	26DS	24DS	112
111	13	14AS	14BS	15CS	21CK	20CS	21CK	20CK	19CK	18CS	21CK	22CK	21CS	21CS	23DS	24DS	16DS	19DS	26DS	24DS	111
110	13	14AK	14BK	15CK	20BS	20CK	21CS	20CS	19CS	17CK	20CS	21CS	21CS	20CS	22DS	24DS	16CS	19CS	25DS	23DS	110
109	13	14AS	14BS	14CS	20BK	19CS	20CK	19CK	18CK	17CS	20CK	21CK	21CS	20CS	22CS	23DS	15CS	18CS	25DS	23DS	109
108	13	13AK	14AK	14CK	20BS	19BK	20CS	19CS	18CS	16CK	19CS	20CS	20CS	19CS	22CS	23DS	14CS	18CS	24DS	22DS	108
107	13	13AS	13AS	14BS	19BK	19BS	19CK	18CK	18CK	16CS	19CK	20CK	20CK	19CS	21CS	23DS	14CS	17CS	24DS	21DS	107
106	12	13	13AK	13BK	19BS	18BK	19CS	18CS	17BS	15CK	18CS	19CS	20CS	19CS	21CS	22CS	13CS	17CS	23DS	21DS	106
105	12	13	13AS	13BS	19AK	18BS	19CK	18CK	17BK	15CS	18CK	19CK	19CK	18CS	20CS	22CS	13CS	16CS	23DS	20DS	105
104	12	13	13AK	13BK	18AS	18BK	18BS	17CS	16BS	14CK	17CS	18CS	19CS	18CK	20CS	21CS	12CS	16CS	22DS	20DS	104
103	12	12	12AS	13BS	18AK	17BS	18BK	17CK	16BK	14CS	17CK	18CK	19CK	18CS	19CS	21CS	12CS	15CS	22DS	19CS	103
102	12	12	12AK	12BK	18AS	17BK	17BS	16CS	16BS	14CK	16CS	17CS	18BS	17CK	19CK	20CK	11CK	14CK	21DS	18CS	102
101	12	12	12AS	12BS	17AK	17AS	17BK	16CK	15BK	13CS	16CK	17CK	18BK	17CS	19CS	20CS	10CS	14CS	21DS	18CS	101
100	12	12	12AK	12BK	17AS	16AK	17BS	15CS	15BS	13CK	15CS	16CS	18BS	17CK	18CK	19CK	10CK	13CK	20DS	17CS	100
99	11	12	11AS	12AS	17AK	16AS	16BK	15CK	14BK	12CS	15CK	16CK	17BK	16CS	18CS	19CS	9CS	13BS	20CS	17CK	99
98	11	11	11AK	11AK	17AS	16AK	16BS	15CS	14BS	12BK	14CS	15CS	17BS	16CK	17CK	18CK	9CK	12BK	20CS	16CS	98
97	11	11	11AS	11AS	16AK	15AS	15AK	14BK	14BK	11BS	14CK	15CK	17BK	16CS	17CS	18CS	8CS	12BS	19CS	16CK	97
96	11	11	11	11AK	16	15AK	15AS	14BS	13AS	11BK	13CS	15CS	16BS	15CK	16CK	17CK	8BK	11BK	19CS	15CS	96
95	11	11	10	10AS	16	15AS	15AK	13BK	13AK	10BS	13CK	14CK	16BK	15CS	16CS	17CS	7BS	10BS	18CS	14CK	95
94	11	11	10	10AK	15	14AK	14AS	13BS	12AS	10BK	12BS	14CS	16BS	14CK	16CK	17CK	6BK	10AK	18CS	14CS	94
93	10	10	10	10AS	15	14AS	14AK	12BK	12AK	9BS	12BK	13CK	15BK	14CS	15CS	16CS	6BS	9AS	17CS	13CK	93
92	10	10	10	10AK	15	14AK	13AS	12BS	12AS	9BK	11BS	13BS	15BS	14BK	15BK	16BK	5AK	9AK	17CS	13BS	92
91	10	10	10	9AS	14	13	13AK	12BK	11AK	8BS	11BK	12BK	15BK	13BS	14BS	16BS	5AS	8AS	16CK	12BK	91
90	10	10	9	9AK	14	13	13AS	11BS	11AS	8BK	10BS	12BS	14AS	13BK	14BK	15BK	4AK	8AK	16CS	11BS	90
89	10	10	9	9AS	14	13	12AK	11BK	10AK	7AS	10BK	11BK	14AK	13BS	13BS	14BS	0	7	15CK	11AK	89
88	10	9	9	9AK	13	12	12AS	10AS	10AS	7AK	9BS	11BS	14AS	12BK	13BK	14BK	0	0	15CS	10AS	88
87	9	9	9	8AS	13	12	11AK	10AK	10AK	6AS	9BK	10BK	13AK	12BS	13BS	13BS	0	0	14CK	10AK	87
86	9	9	8	8	13	11	11	10AS	9	6AK	8BS	10BS	13AS	12BK	12BK	13BK	0	0	14CS	9	86
85	9	9	8	8	12	11	11	9AK	9	5AS	8BK	9BK	13AK	11BS	12BS	12BS	0	0	13BK	0	85
84	9	9	8	7	12	11	10	9AS	8	5AK	7AS	9BS	12AS	11BK	11BK	12BK	0	0	13BS	0	84
83	9	8	8	7	12	10	10	8AK	8	4AS	7AK	8BK	12AK	11BS	11BS	11BS	0	0	12BK	0	83
82	9	8	7	7	11	10	9	8AS	8	4AK	6AS	8BS	12AS	10BK	10BK	11BK	0	0	12BS	0	82
81	9	8	7	7	11	10	9	7AK	7	3	6AK	7AK	11AK	10AS	10BS	11BS	0	0	11BK	0	81
80	8	8	7	6	11	9	9	7AS	7	3	5AS	7AS	11AS	9AK	10AK	10AK	0	0	11BS	0	80
79	8	8	7	6	10	9	8	7AK	6	0	5AK	6AK	11AK	9AS	9AS	10AS	0	0	10AK	0	79
78	8	8	6	6	10	9	8	6AS	6	0	4AS	6AS	10	9AK	9AK	9AK	0	0	10AS	0	78
77	8	7	6	6	10	8	7	6AK	6	0	4AK	5AK	10	8AS	8AS	9AS	0	0	9AK	0	77
76	8	7	6	5	9	8	7	5	5	0	3	5AS	10	8AK	8AK	8AK	0	0	9	0	76
75	8	7	6	5	9	8	7	5	5	0	3	4AK	9	8AS	7AS	8AS	0	0	0	0	75
74	7	7	6	5	9	7	6	4	4	0	0	4AS	9	7AK	7AK	7AK	0	0	0	0	74
73	7	7	5	4	8	7	6	4	4	0	0	3AK	9	7	7AS	7AS	0	0	0	0	73
72	7	6	5	4	8	7	5	4	4	0	0	3	8	7	6AK	6AK	0	0	0	0	72
71	7	6	5	4	8	6	5	3	3	0	0	0	8	6	6AS	6AS	0	0	0	0	71
70	7	6	5	4	7	6	5	3	3	0	0	0	8	6	5AK	5AK	0	0	0	0	70
69	7	6	4	3	7	6	4	2	0	0	0	0	7	6	5	5	0	0	0	0	69
68	6	6	4	3	7	5	4	2	0	0	0	0	7	5	0	0	0	0	0	0	68
67	6	5	4	3	6	5	3	0	0	0	0	0	7	5	0	0	0	0	0	0	67
66	6	5	4	3	6	5	3	0	0	0	0	0	6	0	0	0	0	0	0	0	66
65	6	5	3	2	6	4	3	0	0	0	0	0	6	0	0	0	0	0	0	0	65
64	6	5	3	2	5	4	2	0	0	0	0	0	6	0	0	0	0	0	0	0	64
63	6	5	3	2	5	4	2	0	0	0	0	0	5	0	0	0	0	0	0	0	63
62	5	4	3	0	5	3	0	0	0	0	0	0	5	0	0	0	0	0	0	0	62
61	5	4	2	0	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61
60	5	4	2	0	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60
59	5	4	2	0	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59
58	5	4	2	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58
57	5	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57
56	5	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56
55	4	3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55
54	4	3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54
53	4	3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53
52	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52
51	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51
50	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
49	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
48	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
47	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
46	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
45	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
44	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
43	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
38-42	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38-42
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	



8.6.2 FLAIL ATTACK TABLE

Weapon Type: Two-handed

Length: 2.5-4

Weight: 4-8 pounds

Fumble Range: 01-08 UM

Range (OB Mod): —



	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
150	21EK	23EK	25EK	27EK	28EK	28EK	31EK	31EK	29EK	31EK	35EK	35EK	34EK	34EK	39EK	42EK	36EK	39EK	42EK	44EK	150
149	21EK	23EK	25EK	27EK	28EK	28EK	31EK	31EK	29EK	31EK	35EK	35EK	34EK	34EK	39EK	42EK	36EK	39EK	42EK	44EK	149
148	21EK	23EK	25EK	27EK	28EK	28EK	31EK	31EK	29EK	31EK	35EK	35EK	34EK	34EK	39EK	42EK	36EK	39EK	42EK	43EK	148
147	21EK	23EK	25EK	27EK	28EK	28EK	31EK	31EK	29EK	30EK	34EK	34EK	34EK	34EK	38EK	41EK	35EK	38EK	41EK	43EK	147
146	21EK	23EK	25EK	26EK	27EK	27EK	30EK	30EK	28EK	30EK	34EK	34EK	33EK	33EK	38EK	41EK	35EK	38EK	41EK	42EK	146
145	21EK	23EK	24EK	26EK	27EK	27EK	30EK	30EK	28EK	30EK	34EK	34EK	33EK	33EK	37EK	40EK	34EK	37EK	40EK	42EK	145
144	21EK	22EK	24EK	26EK	27EK	27EK	30EK	30EK	28EK	29EK	33EK	33EK	33EK	33EK	37EK	40EK	34EK	37EK	40EK	41EK	144
143	20EK	22EK	24EK	26EK	27EK	27EK	29EK	29EK	27EK	29EK	33EK	33EK	32EK	32EK	37EK	39EK	33EK	36EK	40EK	41EK	143
142	20EK	22EK	24EK	25EK	26EK	26EK	29EK	29EK	27EK	29EK	32EK	32EK	32EK	32EK	36EK	39EK	33EK	36EK	39EK	40EK	142
141	20EK	22EK	23EK	25EK	26EK	26EK	29EK	29EK	27EK	28EK	32EK	32EK	32EK	32EK	36EK	39EK	32EK	35EK	39EK	40EK	141
140	20DK	22DK	23EK	25EK	26EK	26EK	28EK	28EK	27EK	28EK	32EK	32EK	31EK	31EK	35EK	38EK	32EK	35EK	38EK	39EK	140
139	20DK	21DK	23EK	25EK	26EK	26EK	28EK	28EK	26EK	28EK	31EK	31EK	31EK	31EK	35EK	38EK	31EK	34EK	38EK	39EK	139
138	20DK	21DK	23DK	24EK	25EK	25EK	28EK	28EK	26EK	27EK	31EK	31EK	31EK	31EK	35EK	37EK	31EK	34EK	37EK	38EK	138
137	19DK	21DK	22DK	24EK	25EK	25EK	27EK	27EK	26EK	27EK	31EK	30EK	30EK	30EK	34EK	37EK	30EK	33EK	37EK	38EK	137
136	19DK	21DK	22DK	24EK	25DK	25DK	27EK	27EK	25EK	26EK	30EK	30EK	30EK	30EK	34EK	36EK	30EK	33EK	37EK	37EK	136
135	19DK	21DK	22DK	23EK	25DK	24DK	27DK	27EK	25EK	26EK	30EK	30EK	30EK	30EK	33EK	36EK	30EK	32EK	36EK	37EK	135
134	19DK	20DK	22DK	23DK	24DK	24DK	26DK	26EK	25DK	26EK	29EK	29EK	29DK	29EK	33EK	35EK	29EK	32EK	36EK	36EK	134
133	19DK	20DK	21DK	23DK	24DK	24DK	26DK	26EK	24DK	25EK	29EK	29EK	29DK	29EK	33EK	35EK	29EK	31EK	35EK	36EK	133
132	19CK	20DK	21DK	23DK	24DK	24DK	26DK	26DK	24DK	25EK	29EK	29EK	29DK	29EK	32EK	35EK	28EK	31EK	35EK	35EK	132
131	18CK	20CK	21DK	22DK	24DK	23DK	26DK	25DK	24DK	25DK	28DK	28EK	29DK	28DK	32EK	34EK	28EK	30EK	35EK	35EK	131
130	18CK	20CK	21DK	22DK	23DK	23DK	25DK	25DK	24DK	24DK	28DK	28EK	28DK	28DK	31EK	34EK	27EK	30EK	34EK	34EK	130
129	18CK	19CK	21DK	22DK	23DK	23DK	25DK	25DK	23DK	24DK	27DK	27EK	28DK	28DK	31DK	33EK	27EK	29EK	34EK	34EK	129
128	18CK	19CK	20DK	22DK	23DK	23DK	25DK	24DK	23DK	24DK	27DK	27DK	28DK	27DK	31DK	33EK	26DK	29EK	33EK	33EK	128
127	18CK	19CK	20CK	21DK	23DK	22DK	24DK	24DK	23DK	23DK	27DK	27DK	27DK	27DK	30DK	32DK	26DK	28EK	33EK	33EK	127
126	18CK	19CK	20CK	21DK	22DK	22DK	24DK	24DK	22DK	23DK	26DK	26DK	27DK	27DK	30DK	32DK	25DK	28DK	32EK	32EK	126
125	17CK	19CK	20CK	21DK	22DK	22DK	24DK	23DK	22DK	23DK	26DK	26DK	27DK	26DK	29DK	31DK	25DK	28DK	32EK	32EK	125
124	17CK	18CK	19CK	20DK	22DK	22DK	23DK	23DK	22DK	22DK	26DK	25DK	26DK	26DK	29DK	31DK	24DK	27DK	32EK	31EK	124
123	17BK	18CK	19CK	20DK	22CK	21DK	23DK	23DK	21DK	22DK	25DK	25DK	26DK	26DK	29DK	31DK	24DK	27DK	31EK	31EK	123
122	17BK	18CK	19CK	20DK	21CK	21CK	23DK	22DK	21DK	21DK	25DK	25DK	26DK	25DK	28DK	30DK	23DK	26DK	31EK	30EK	122
121	17BK	18BK	19CK	20DK	21CK	21CK	22DK	22DK	21DK	21DK	24DK	24DK	25DK	25DK	28DK	30DK	23DK	26DK	30EK	30EK	121
120	17BK	18BK	18CK	19DK	21CK	20CK	22CK	22DK	21CK	21DK	24DK	24DK	25CK	25DK	27DK	29DK	23DK	25DK	30EK	29DK	120
119	16AK	17BK	18CK	19CK	21CK	20CK	22CK	21DK	20CK	20DK	24DK	23DK	25CK	24DK	27DK	29DK	22DK	25DK	29EK	29DK	119
118	16AK	17BK	18CK	19CK	20CK	20CK	21CK	21DK	20CK	20DK	23DK	23DK	24CK	24DK	26DK	28DK	22DK	24DK	29DK	28DK	118
117	16AK	17BK	18CK	19CK	20CK	20CK	21CK	21DK	20CK	20DK	23DK	23DK	24CK	24DK	26DK	28DK	21DP	24DK	29DK	28DK	117
116	16AK	17AK	17CK	18CK	20CK	19CK	21CK	20DK	19CK	19DK	22DK	22DK	24CK	23DK	26DK	27DK	21DK	23DK	28DK	27DK	116
115	16AP	17AK	17BK	18CK	20CK	19CK	21CK	20DK	19CK	19DK	22DK	22DK	24CK	23DK	25DK	27DK	20DP	23DP	28DK	27DK	115
114	16AK	16AP	17BK	18CK	19CK	19CK	20CK	20CK	19CK	19CK	22DK	22DK	23CK	23DK	25DK	27DK	20DK	22DK	27DK	26DP	114
113	15AP	16AK	17BK	17CK	19CK	19CK	20CK	19CK	19CK	18CK	21DK	21DK	23CK	22DK	24DK	26DK	19DP	22DP	27DK	26DK	113
112	15AK	16AP	16BK	17CK	19CK	18CK	20CK	19CK	18CK	18CK	21CK	21DK	23CK	22DK	24DK	26DK	19DK	21DK	27DK	25DP	112
111	15	16AK	16BK	17CK	19CK	18CK	19CK	19CK	18CK	18CK	21CK	20DK	22CK	22CK	24DK	25DK	18DP	21DP	26DK	25DK	111
110	15	16AP	16BK	17CK	18BK	18CK	19CK	18CK	18CK	17CK	20CK	20DK	22CK	21CK	23CK	25DK	18CK	20DK	26DK	24DP	110
109	15	15AK	16BK	16CK	18BK	18CK	19CK	18CK	17CK	17CK	20CK	20DK	22CK	21CK	23CK	24DK	17CP	20DP	25DP	24DK	109
108	15	15AP	16AK	16CK	18BK	17BK	18CK	18CK	17CK	16CK	19CK	19DK	21CK	21CK	22CK	24DK	17CK	19DK	25DK	23DP	108
107	14	15AK	15AK	16CK	18BK	17BK	18CK	17CK	17CK	16CK	19CK	19CK	21CK	20CK	22CK	23DK	17CP	19CP	24DP	23DK	107
106	14	15	15AP	16CK	17BP	17BK	18CK	17CK	16CK	16CK	19CK	18CK	21CK	20CK	22CK	23DK	16CK	18CK	24DK	22DP	106
105	14	15	15AK	15BK	17AK	16BK	17CK	17CK	16CK	15CK	18CK	18CK	20CK	20CK	21CK	23CK	16CP	18CP	24DP	22DK	105
104	14	14	15AP	15BK	17AP	16BK	17CK	16CK	16CK	15CK	18CK	18CK	20CP	19CK	21CK	22CK	15CK	17CK	23DK	21DP	104
103	14	14	14AK	15BK	17AK	16BK	17BK	16CK	16BP	15CK	17CK	17CK	20CK	19CK	20CK	22CK	15CP	17CP	23DP	21DK	103
102	14	14	14AP	14BK	16AP	16BK	16BK	16CK	15BK	14CK	17CK	17CK	19CP	19CK	20CK	21CK	14CK	17CK	22DK	20DP	102
101	13	14	14AK	14BK	16AK	15AP	16BK	15CK	15BP	14CK	17CK	16CK	19BK	18CP	20CK	21CK	14CP	16CP	22DP	20DK	101
100	13	14	14AP	14BK	16AP	15AK	16BK	15CK	15BK	14CK	16CK	16CK	19BP	18CK	19CK	20CK	13CK	16CK	22DK	19DP	100
99	13	13	13AK	14BK	16AK	15AP	16BK	15CK	14BP	13CK	16CK	16CK	19BK	18CP	19CK	20CK	13CP	15CP	21DP	19CK	99
98	13	13	13AP	13AP	15AP	15AK	15BP	14CK	14BK	13CP	16CK	15CK	18BP	17CK	18CP	20CP	12CK	15CK	21DK	18CP	98
97	13	13	13AK	13AK	15AK	14AP	15BK	14BK	14BP	13CK	15CK	15CK	18BK	17CP	18CK	19CK	12CP	14CP	20DP	18CK	97
96	13	13	13	13AP	15	14AK	15AP	14BK	13BK	12BP	15CK	15CK	18BP	17CK	18CP	19CP	11CK	14CK	20CK	17CP	96
95	12	13	12	13AK	14	14AP	14AK	13BK	13BP	12BK	14CP	14CK	17BK	16CP	17CK	18CK	11BP	13CP	19CP	17CK	95
94	12	12	12	12AP	14	14AK	14AP	13BK	13BK	11BP	14CK	14CK	17BP	16CK	17CP	18CP	10BK	13BK	19CK	16CP	94
93	12	12	12	12AK	14	13AP	14AK	13BK	13AP	11BK	14CP	13CK	17BK	16CP	16CK	17CK	10BP	12BP	19CP	16CK	93
92	12	12	12	12AP	14	13AK	13AP	12BK	12AK	11BP	13CK	13CK	16BP	15CK	16CP	17CP	10BK	12BK	18CK	15CP	92
91	12	12	11	12AK	13	13	13AK	12BK	12AP	10BK	13BP	13CK	16BK	15BP	15BK	16CK	9AP	11BP	18CP	15CK	91
90	12	12	11	11AP	13	12	13AP	12BP	12AK	10BP	12BK	12CP	16BP	15BK	15BP	16BP	9AK	11BK	17CK	14CP	90
89	11	11	11	11AK	13	12	12AK	11BK	11AP	10BK	12BP	12CK	15BK	14BP	15BK	16BK	8AP	10BP	17CP	14CK	89
88	11	11	11	11AP	13	12	12AP	11AP	11AK	9BP	12BK	11CP	15BP	14BK	14BP	15BP	8AK	10AK	16CK	13CP	88
87	11	11	11	10AK	12	12	12AK	11AK	11AP	9BK	11BP	11CK	15AK	14BP	14BK	15BK	7AS	9AP	16CP	13BK	87
86	11	11	10	10	12	11	11	10AP	11AK	9AP	11BK	11BP	14AP	13BK	13BP	14BP	7	9AK	16CK	12BP	86
85	11	11	10	10	12	11	11	10AK	10AP	8AK	11BP	11BK	14AK	13BP	13BK	14BK	6	8AP	15CP	12BK	85
84	11	10	10	10	12	11	11	10AP	10AK	8AP	10BK	10BP	14AP	13BK	13BP	13BP	6	8AK	15CK	11BP	84
83	10	10	10	9	11	11	11	9AK	10	8AK	10BP	9BK	14AK	12BP	12BK	13BK	5	7AS	14CP	11AK	83
82	10	10	9	9	11	10	10	9AP	9	7AP	9BK	9BP	13AP	12BK	12BP	12BP	5	7	14CK	10AP	82
81	10	10	9	9	11	10	10	9AK	9	7AK	9AP	9BK	13AK	12BP	11BK	12BK	4	0	14BP	10AK	81
80	10	10	9	9	11	10	10	8AP	9	6AP	9AK	8BP	13AP	11BK	11BP	12BP	4	0	13BK	9	80
79	10	9	9	8	10	10	9	8AK	8	6AK	8AP	8BK	12AK	11AP	11BK	11BK	0	0	13BP	0	79
78	10	9	8	8	10	9	9	8AP	8	6	8AK	8BP	12AP	11AK	10AP	11BP	0	0	12BK	0	78
77	9	9	8	8	10	9	9	7AK	8	5	7AP	7BK	12AK	10AP	10AK	10AK	0	0	12BP	0	77
76	9	9	8	7	10	9	8	7	8	5	7AK	7BP	11	10AK	9AP	10AP	0	0	11BK	0	76
75	9	9	8	7	9	8	8	7	7	5	7AP	6AK	11	10AP	9AK	9AK	0	0	11BP	0	75
74	9	8	7	7	9	8	8	6	7	4	6AK	6AP	11	9AK	9AP	9AP	0	0	11AK	0	74
73	9	8	7	7	9	8	7	6	7	4	6	6AK	10	9AP	8AK	8AK	0	0	10AP	0	73
72	9	8	7	6	9	8	7	6	6	4	6	5AP	10	9AK	8AP	8AP	0	0	10AK	0	72
71	8	8	7	6	8	7	7	5	6	3	5	5AK	10	8	7AK	8AK	0	0	9AP	0	71
70	8	8	6	6	8	7	6	5	6	3	5	4AP	9	8	7AP	7AP	0	0	9	0	70
69	8	7	6	6	8	7	6	5	5	0	4	4AK	9	8	7AK	7AK	0	0	0	0	69
68	8	7	6	5	8	7	6	4	5	0	4	4AP	9	7	6AP	6AP	0	0	0	0	68
67	8	7	6	5	7	6	6	4	5	0	4	3AK	9	7	6AK	6AK	0	0	0	0	67
66	8	7	6	5	7	6	5	4	5	0	3	3	8	7	5	5AP	0	0	0	0	66
65	7	7	5	4	7	6	5	3	4	0	3	0	8	6	5	5	0	0	0	0	65
64	7	6	5	4	7	6	5	3	4	0	0	0	8	6	0	0	0	0	0	0	64
63	7	6	5	4	6	5	4	3	4	0	0	0	7	6	0	0	0	0	0	0	63
62	7	6	5	4	6	5	4	2	3	0	0	0	7	5	0	0	0	0	0	0	62
61	7	6	4	3	6	5	4	2	3	0	0	0	7	5	0	0	0	0	0	0	61
60	7	6	4	3	6	4	3	2	3	0	0	0	6	5	0	0	0	0	0	0	60
59	6	5	4	3	5	4	3	0	0	0	0	0	6	0	0	0	0	0	0	0	59
58	6	5	4	3	5	4	3	0	0	0	0	0	6	0	0	0	0	0	0	0	58
57	6	5	3	2	5	4	2	0	0	0	0	0	5	0	0	0	0	0	0	0	57
56	6	5	3	2	5	3	2	0	0	0	0	0	5	0	0	0	0	0	0	0	56
55	6	5	3	2	4	3	2	0	0	0	0	0	5	0	0	0	0	0	0	0	55
54	6	4	3	0	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54
53	5	4	2	0	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53
52	5	4	2	0	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52
51	5	4	2	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51
50	5	4	2	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
49	5	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
48	5	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
47	4	3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
45-46	4	3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45-46
42-44	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42-44
40-41	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40-41
36-39	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36-39
30-35	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30-35
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	

8.6.3 WAR MATTOCK ATTACK TABLE

Weapon Type: Two-handed

Length: 3.5-5 feet

Weight: 4-8 pounds

Fumble Range: 01-06 UM

Range (OB Mod): —

	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
150	23EK	25EK	27EK	29EK	30EK	30EK	33EK	33EK	30EK	32EK	36EK	36EK	33EK	33EK	38EK	41EK	34EK	37EK	40EK	42EK	150
149	23EK	25EK	27EK	29EK	30EK	30EK	33EK	33EK	30EK	32EK	36EK	36EK	33EK	33EK	38EK	41EK	34EK	37EK	40EK	42EK	149
148	23EK	25EK	27EK	29EK	30EK	30EK	33EK	33EK	30EK	32EK	36EK	36EK	33EK	33EK	38EK	41EK	33EK	36EK	40EK	41EK	148
147	23EK	25EK	27EK	28EK	30EK	29EK	32EK	32EK	29EK	31EK	35EK	35EK	32EK	32EK	37EK	40EK	33EK	36EK	39EK	41EK	147
146	23EK	25EK	26EK	28EK	29EK	29EK	32EK	32EK	29EK	31EK	35EK	35EK	32EK	32EK	37EK	40EK	32EK	35EK	39EK	40EK	146
145	22EK	24EK	26EK	28EK	29EK	29EK	32EK	31EK	29EK	30EK	34EK	34EK	32EK	32EK	36EK	39EK	32EK	35EK	38EK	40EK	145
144	22EK	24EK	26EK	27EK	29EK	28EK	31EK	31EK	28EK	30EK	34EK	34EK	31EK	31EK	36EK	39EK	31EK	34EK	38EK	39EK	144
143	22EK	24EK	25EK	27EK	28EK	28EK	31EK	31EK	28EK	29EK	33EK	33EK	31EK	31EK	36EK	38EK	31EK	34EK	38EK	39EK	143
142	22EK	24EK	25EK	26EK	28EK	28EK	30EK	30EK	28EK	29EK	33EK	33EK	31EK	31EK	35EK	38EK	30EK	33EK	37EK	38EK	142
141	22EK	23EK	25EK	26EK	28EK	27EK	30EK	30EK	27EK	29EK	32EK	33EK	30EK	30EK	35EK	37EK	30EK	33EK	37EK	38EK	141
140	21EK	23EK	25EK	26EK	27EK	27EK	30EK	29EK	27EK	28EK	32EK	32EK	30EK	30EK	34EK	37EK	29EK	32EK	36EK	37EK	140
139	21DK	23DK	24EK	26EK	27EK	27EK	29EK	29EK	26EK	28EK	31EK	32EK	30EK	30EK	34EK	36EK	29EK	32EK	36EK	37EK	139
138	21DK	23DK	24EK	25EK	27EK	26EK	29EK	29EK	26EK	27EK	31EK	31EK	29EK	29EK	33EK	36EK	28EK	31EK	35EK	36EK	138
137	21DK	22DK	24EK	25EK	26EK	26EK	28EK	28EK	26DK	27EK	31EK	31EK	29EK	29EK	33EK	35EK	28EK	31EK	35EK	36EK	137
136	21DK	22DK	23DK	25EK	26EK	26EK	28EK	28EK	25DK	26EK	30EK	30EK	29EK	28EK	33EK	35EK	27EK	30EK	35EK	35EK	136
135	20DK	22DK	23DK	24EK	26DK	25DK	28DK	27EK	25DK	26EK	30EK	30EK	28EK	28EK	32EK	35EK	27EK	30EK	34EK	35EK	135
134	20DK	22DK	23DK	24EK	25DK	25DK	27DK	27EK	25DK	26DK	29DK	29EK	28DK	28EK	32EK	34EK	26EK	29EK	34EK	34EK	134
133	20DK	21DK	22DK	24DK	25DK	25DK	27DK	26EK	24DK	25DK	29DK	29EK	28DK	27EK	31EK	34EK	26EK	29EK	33EK	33EK	133
132	20DK	21DK	22DK	23DK	25DK	24DK	26DK	26EK	24DK	25DK	28DK	29DK	27DK	27EK	31EK	33EK	25EK	28EK	33EK	33EK	132
131	20DK	21DK	22DK	23DK	25DK	24DK	26DK	26DK	23DK	24DK	28DK	28DK	27DK	27DK	30EK	33EK	25EK	28EK	32EK	33EK	131
130	19CK	21DK	22DK	23DK	24DK	24DK	26DK	25DK	23DK	24DK	27DK	28DK	27DK	26DK	30DK	32EK	24EK	27EK	32EK	32EK	130
129	19CK	20CK	21DK	22DK	24DK	23DK	25DK	25DK	23DK	23DK	27DK	27DK	26DK	26DK	30DK	32DK	24DK	27EK	32EK	32EK	129
128	19CK	20CK	21DK	22DK	24DK	23DK	25DK	24DK	22DK	23DK	26DK	27DK	26DK	26DK	29DK	31DK	23DK	26DK	31EK	31EK	128
127	19CK	20CK	21DK	22DK	23DK	23DK	25DK	24DK	22DK	22DK	26DK	26DK	25DK	25DK	29DK	31DK	23DK	26DK	31EK	30EK	127
126	19CK	20CK	20DK	21DK	23DK	22DK	24DK	24DK	22DK	22DK	25DK	26DK	25DK	25DK	28DK	30DK	22DK	25DK	30EK	30EK	126
125	18CK	19CK	20DK	21DK	23DK	22DK	24DK	23DK	21DK	22DK	25DK	25DK	25DK	24DK	28DK	30DK	22DK	25DK	30EK	29EK	125
124	18CK	19CK	20CK	21DK	22DK	22DK	23DK	23DK	21CK	21DK	25DK	25DK	24DK	24DK	27DK	29DK	21DK	24DK	29EK	29EK	124
123	18CK	19CK	19CK	20DK	22DK	21DK	23DK	22DK	20CK	21DK	24DK	25DK	24DK	24DK	27DK	29DK	21DK	24DK	29EK	28EK	123
122	18CK	19CK	19CK	20DK	22DK	21DK	23DK	22DK	20CK	20DK	24DK	24DK	24DK	23DK	27DK	29DK	20DK	23DK	29EK	28EK	122
121	18CK	18CK	19CK	20DK	21CK	21DK	22DK	21DK	20CK	20DK	23DK	24DK	23DK	23DK	26DK	28DK	20DK	23DK	28DK	27DK	121
120	17CK	18CK	19CK	19DK	21CK	20CK	22CK	21DK	19CK	19DK	23DK	23DK	23CK	23DK	26DK	28DK	19DK	22DK	28DK	27DK	120
119	17BK	18CK	18CK	19DK	21CK	20CK	21CK	21DK	19CK	19CK	22DK	23DK	23CK	22DK	25DK	27DK	19DK	22DK	27DK	26DK	119
118	17BK	18BK	18CK	19DK	20CK	20CK	21CK	20DK	19CK	19CK	22DK	22DK	22CK	22DK	25DK	27DK	18DK	21DK	27DK	26DK	118
117	17BK	17BK	18CK	18CK	20CK	19CK	21CK	20DK	18CK	18CK	21CK	22DK	22CK	22DK	24DK	26DK	18DK	21DK	26DK	25DK	117
116	17BK	17BK	17CK	18CK	20CK	19CK	20CK	19DK	18CK	18CK	21CK	21DK	22CK	21DK	24DK	26DK	17DK	20DK	26DK	25DK	116
115	16AK	17BK	17CK	18CK	19CK	19CK	20CK	19DK	17CK	17CK	20CK	21CK	21CK	21DK	24DK	25DK	17DK	20DK	26DK	24DK	115
114	16AK	17BK	17CK	17CK	19CK	18CK	19CK	19DK	17CK	17CK	20CK	21CK	21CK	20DK	23DK	25DK	16DK	19DK	25DK	24DK	114
113	16AK	16BK	16CK	17CK	19CK	18CK	19CK	18DK	17CK	16CK	19CK	20CK	21CK	20DK	23DK	24DK	16DK	19DK	25DK	23DK	113
112	16AK	16AK	16CK	17CK	19CK	18CK	19CK	18CK	16CK	16CK	19CK	20CK	20CK	20DK	22DK	24DK	15CK	18DK	24DK	23DK	112
111	15AK	16AK	16CK	16CK	18CK	17CK	18CK	17CK	16CK	16CK	19CK	19CK	20CK	19CK	22CK	23DK	15CK	18CK	24DK	22DK	111
110	15AK	16AK	16BK	16CK	18CK	17CK	18CK	17CK	16CK	15CK	18CK	18CK	20CK	19CK	21CK	23CK	14CK	17CK	23DK	22DK	110
109	15AK	15AK	15BK	15CK	18CK	17CK	17CK	16CK	15CK	15CK	18CK	18CK	19CK	19CK	21CK	23CK	14CK	17CK	23DK	21DK	109
108	15AK	15AK	15BK	15CK	17BK	16CK	17CK	16CK	15CK	14CK	17CK	18CK	19CK	18CK	21CK	22CK	13CK	16CK	23DK	21DK	108
107	15AK	15AK	15BK	15CK	17BK	16CK	17CK	16CK	14BK	14CK	17CK	18CK	18CK	18CK	20CK	22CK	13CK	16CK	22DK	20DK	107
106	14	15AK	14BK	14CK	17BK	16BK	16CK	15CK	14BK	13CK	16CK	17CK	18CK	18CK	20CK	21CK	12CK	15CK	22DK	19DK	106
105	14	14AK	14BK	14CK	16BK	15BK	16CK	15CK	14BK	13CK	16CK	17CK	18CK	17CK	19CK	21CK	12CK	15CK	21DK	19DK	105
104	14	14AK	14BK	14CK	16BK	15BK	16CK	14CK	13BK	12CK	15CK	16CK	17CK	17CK	19CK	20CK	11CK	14CK	21DK	18DK	104
103	14	14AK	13BK	13CK	16AK	15BK	15CK	14CK	13BK	12CK	15CK	16CK	17CK	16CK	19CK	20CK	11CK	14CK	20DK	18CK	103
102	14	14AK	13AK	13BK	15AK	14BK	15BK	14CK	13BK	12BK	14CK	15CK	17CK	16CK	18CK	19CK	10CK	13CK	20DK	17CK	102
101	13	13	13AK	13BK	15AK	14BK	14BK	13CK	12BK	11BK	14CK	15CK	16BK	16CK	18CK	19CK	10CK	13CK	20CK	17CK	101
100	13	13	13AK	12BK	15AK	14BK	14BK	13CK	12BK	11BK	14CK	14CK	16BK	15CK	17CK	18CK	9CK	12CK	19CK	16CK	100
99	13	13	12AK	12BK	14AK	13AK	14BK	12CK	11BK	10BK	13CK	14CK	16BK	15CK	17CK	18CK	9CK	12BK	19CK	16CK	99
98	13	13	12AK	12BK	14AK	13AK	13BK	12CK	11BK	10BK	13CK	14CK	15BK	15CK	16CK	17CK	8CK	11BK	18CK	15CK	98
97	13	12	12AK	11BK	14AK	13AK	13BK	11CK	11BK	9BK	12BK	13CK	15BK	14CK	16CK	17CK	8BK	11BK	18CK	15CK	97
96	12	12	11AK	11BK	13AK	12AK	12BK	11CK	10BK	9BK	12BK	13CK	15BK	14CK	16CK	17CK	7BK	10BK	17CK	14CK	96
95	12	12	11AK	11BK	13AK	12AK	12AK	11CK	10AK	9BK	11BK	12BK	14BK	14CK	15CK	16BK	7BK	10BK	17CK	14CK	95
94	12	12	11AK	10AK	13	12AK	12AK	10BK	10AK	8BK	11BK	12BK	14BK	13CK	15BK	16BK	6BK	9BK	17CK	13CK	94
93	12	11	10AK	10AK	13	11AK	11AK	10BK	9AK	8BK	10BK	11BK	14BK	13CK	14BK	15BK	6AK	9AK	16CK	13CK	93
92	12	11	10AK	10AK	12	11AK	11AK	9BK	9AK	7BK	10BK	11BK	13BK	12CK	14BK	15BK	5AK	8AK	16CK	12BK	92
91	11	11	10	9AK	12	11AK	10AK	9BK	8AK	7AK	9BK	10BK	13BK	12BK	13BK	14BK	5AK	8AK	15CK	12BK	91
90	11	11	10	9AK	12	10AK	10AK	9BK	8AK	6AK	9BK	10BK	13BK	12BK	13BK	14BK	4AK	7AK	15CK	11BK	90
89	11	10	9	9AK	11	10	10AK	8BK	8AK	6AK	8BK	10BK	12BK	11BK	13BK	13BK	4	7	14CK	11BK	89
88	11	10	9	8AK	11	10	9AK	8BK	7AK	6AK	8BK	9BK	12BK	11BK	12BK	13BK	0	0	14CK	10AK	88
87	11	10	9	8AK	11	9	9AK	7BK	7AK	5AK	8BK	9BK	11AK	11BK	12BK	12BK	0	0	14BK	10AK	87
86	10	10	8	8AK	10	9	9AK	7BK	7AK	5AK	7AK	8BK	11AK	10BK	11BK	12BK	0	0	13BK	9	86
85	10	9	8	7AK	10	9	8AK	6AK	6AK	4AK	7AK	8BK	11AK	10BK	11BK	11BK	0	0	13BK	0	85
84	10	9	8	7AK	10	8	8	6AK	6	4AK	6AK	7BK	10AK	10BK	10BK	11BK	0	0	12BK	0	84
83	10	9	7	7AK	9	8	7	6AK	5	3AK	6AK	7AK	10AK	9BK	10BK	11AK	0	0	12BK	0	83
82	10	9	7	6AK	9	8	7	5AK	5	3	5AK	6AK	10AK	9BK	10BK	10AK	0	0	11BK	0	82
81	9	8	7	6	9	7	7	5AK	5	0	5AK	6AK	9AK	8BK	9AK	10AK	0	0	11AK	0	81
80	9	8	7	6	8	7	6	4AK	4	0	4AK	6AK	9AK	8BK	9AK	9AK	0	0	11AK	0	80
79	9	8	6	5	8	7	6	4AK	4	0	4AK	5AK	9AK	8AK	8AK	9AK	0	0	10AK	0	79
78	9	8	6	5	8	6	5	4AK	4	0	3AK	5AK	8AK	7AK	8AK	8AK	0	0	10AK	0	78
77	8	7	6	5	7	6	5	3AK	3	0	3	4AK	8AK	7AK	7AK	8AK	0	0	9AK	0	77
76	8	7	5	4	7	6	5	3AK	3	0	0	4AK	8	7AK	7AK	7AK	0	0	9	0	76
75	8	7	5	4	7	5	4	2AK	0	0	0	3AK	7	6AK	7AK	7AK	0	0	0	0	75
74	8	6	5	4	7	5	4	2	0	0	0	3	7	6AK	6AK	6AK	0	0	0	0	74
73	8	6	4	3	6	5	3	0	0	0	0	0	7	6AK	6AK	6AK	0	0	0	0	73
72	7	6	4	3	6	4	3	0	0	0	0	0	6	5AK	5AK	5AK	0	0	0	0	72
71	7	6	4	3	6	4	3	0	0	0	0	0	6	5	5	5	0	0	0	0	71
70	7	6	4	2	5	4	2	0	0	0	0	0	6	0	0	0	0	0	0	0	70
69	7	5	3	2	5	3	2	0	0	0	0	0	5	0	0	0	0	0	0	0	69
68	7	5	3	0	5	3	0	0	0	0	0	0	5	0	0	0	0	0	0	0	68
67	6	5	3	0	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67
66	6	5	2	0	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66
65	6	4	2	0	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65
64	6	4	2	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	64
63	6	4	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63
62	5	4	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62
61	5	3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61
60	5	3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60
59	5	3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59
58	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58
57	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57
56	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56
55	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55
54	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54
53	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53
52	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52
51	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51
50	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
49	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
48	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
47	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
46	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
45	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
44	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	



8.6.4 QUARTERSTAFF ATTACK TABLE

Weapon Type: Two-handed

Length: 5-7 feet

Weight: 3-5 pounds

Fumble Range: 01-03 UM

Range: (OB Mod): —

	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
150	11CK	13CK	15EK	17EK	18EK	18EK	21EK	21EK	20EK	22EK	26EK	26EK	28EK	28EK	33EK	36EK	30EK	33EK	36EK	38EK	150
149	11CK	13CK	15DK	17EK	18DK	18DK	21EK	21EK	20EK	22EK	26EK	26EK	28EK	28EK	33EK	36EK	30EK	33EK	36EK	38EK	149
148	11BK	13CK	15CK	17EK	18DK	18DK	21DK	21EK	20EK	22EK	26EK	26EK	28EK	28EK	33EK	36EK	30EK	33EK	36EK	38EK	148
147	11BK	13BK	15CK	17DK	18CK	18DK	21DK	21EK	20DK	22EK	26EK	26EK	28EK	28EK	33EK	36EK	30EK	33EK	36EK	37EK	147
146	11BK	13BK	15CK	17DK	18CK	18CK	21DK	21DK	20DK	22EK	26EK	26EK	28EK	28EK	32EK	35EK	29EK	32EK	35EK	37EK	146
145	11AK	13BK	15CK	17DK	18CK	18CK	21DK	21DK	20DK	21DK	25DK	25EK	27EK	27EK	32EK	35EK	29EK	32EK	35EK	37EK	145
144	11AK	13BK	15CK	17DK	18CK	18CK	20CK	20DK	19DK	21DK	25DK	25EK	27EK	27EK	32EK	35EK	29EK	32EK	35EK	36EK	144
143	11AK	13AK	15BK	16CK	17CK	17CK	20CK	20DK	19CK	21DK	25DK	25EK	27DK	27EK	32EK	34EK	28DK	31EK	34EK	36EK	143
142	11AK	13AK	15BK	16CK	17CK	17CK	20CK	20DK	19CK	21DK	25DK	25DK	27DK	27DK	31EK	34EK	28DK	31EK	34EK	36EK	142
141	11AK	13AK	14BK	16CK	17BK	17CK	20CK	20DK	19CK	21DK	24DK	24DK	27DK	27DK	31DK	34EK	28DK	31EK	34EK	35EK	141
140	11AK	13AK	14BK	16CK	17BK	17CK	20CK	20CK	19CK	20CK	24DK	24DK	26DK	26DK	31DK	33EK	28DK	30DK	34EK	35EK	140
139	11	12AK	14BK	16CK	17BK	17BK	20CK	19CK	19CK	20CK	24DK	24DK	26DK	26DK	31DK	33DK	27DK	30DK	33EK	35EK	139
138	11	12AK	14BK	16CK	17BK	17BK	19CK	19CK	18CK	20CK	24CK	24DK	26CK	26DK	30DK	33DK	27DK	30DK	33EK	34EK	138
137	10	12AK	14BK	16CK	17BK	17BK	19CK	19CK	18CK	20CK	23CK	23DK	26CK	26DK	30DK	32DK	27CK	29DK	33EK	34EK	137
136	10	12AK	14AK	15BK	16BK	16BK	19CK	19CK	18CK	20CK	23CK	23DK	26CK	25DK	30DK	32DK	26CK	29DK	32EK	34DK	136
135	10	12AK	14AK	15BK	16BK	16BK	19CK	19CK	18CK	19CK	23CK	23DK	25CK	25DK	29DK	32DK	26CK	29DK	32EK	33DK	135
134	10	12	14AK	15BK	16AK	16BK	19BK	18CK	18CK	19CK	23CK	23DK	25CK	25DK	29DK	32DK	26CK	29DK	32DK	33DK	134
133	10	12	13AK	15BK	16AK	16BK	18BK	18CK	18CK	19CK	22CK	22CK	25CK	25DK	29DK	31DK	26CK	28DK	32DK	33DK	133
132	10	12	13AK	15BK	16AK	16BK	18BK	18CK	17BK	19CK	22CK	22CK	25CK	25CK	29DK	31DK	25CK	28CK	31DK	32DK	132
131	10	12	13AK	15BK	16AK	16AK	18BK	18CK	17BK	19CK	22CK	22CK	25CK	24CK	28CK	31DK	25CK	28CK	31DK	32DK	131
130	10	12	13AK	15BK	16AK	16AK	18BK	18CK	17BK	18CK	22CK	22CK	24CK	24CK	28CK	30DK	25CK	27CK	31DK	32DK	130
129	10	11	13AK	14BK	15AK	15AK	18BK	18BK	17BK	18CK	22CK	21CK	24CK	24CK	28CK	30DK	24CK	27CK	30DK	31DK	129
128	10	11	13AK	14AK	15AK	15AK	18BK	17BK	17BK	18BK	21CK	21CK	24CK	24CK	28CK	30CK	24CK	27CK	30DK	31DK	128
127	10	11	13AK	14AK	15AK	15AK	17BK	17BK	17BK	18BK	21CK	21CK	24CK	24CK	27CK	29CK	24BK	26CK	30DK	31CK	127
126	10	11	13AK	14AK	15AK	15AK	17BK	17BK	16BK	18BK	21CK	21CK	24CK	23CK	27CK	29CK	23BK	26CK	30DK	30CK	126
125	9	11	12AK	14AK	15AK	15AK	17AK	17BK	16BK	17BK	21CK	20CK	23BK	23CK	27CK	29CK	23BK	26CK	29DK	30CK	125
124	9	11	12	14AK	15AK	15AK	17AK	17BK	16BK	17BK	20BK	20CK	23BK	23CK	26CK	28CK	23BK	25CK	29DK	30CK	124
123	9	11	12	14AK	15AK	14AK	17AK	16BK	16BK	17BK	20BK	20CK	23BK	23CK	26CK	28CK	23BK	25BK	29CK	29CK	123
122	9	11	12	13AK	14AK	14AK	16AK	16BK	16BK	17BK	20BK	20CK	23BK	22CK	26CK	28CK	22BK	25BK	28CK	29CK	122
121	9	11	12	13AK	14	14AK	16AK	16BK	16BK	16BK	20BK	19CK	23BK	22CK	26CK	27CK	22BK	25BK	28CK	29CK	121
120	9	11	12	13AK	14	14AK	16AK	16BK	15AK	16BK	19BK	19CK	22BK	22CK	25CK	27CK	22AK	24BK	28CK	28CK	120
119	9	10	12	13AK	14	14AK	16AK	16BK	15AK	16BK	19BK	19CK	22BK	22CK	25CK	27CK	21AK	24BK	28CK	28CK	119
118	9	10	12	13AK	14	14AK	16AK	15BK	15AK	16BK	19BK	19CK	22BK	22CK	25CK	27CK	21AK	24BK	27CK	28BK	118
117	9	10	11	13AK	14	14AK	16AK	15AK	15AK	16BK	19BK	18BK	22BK	21BK	25BK	26CK	21AK	23BK	27CK	27BK	117
116	9	10	11	13AK	14	13	15AK	15AK	15AK	15BK	18BK	18BK	21BK	21BK	24BK	26CK	21AK	23BK	27CK	27BK	116
115	9	10	11	12AK	13	13	15AK	15AK	15AK	15AK	18BK	18BK	21BK	21BK	24BK	26BK	20AK	23BK	26CK	27BK	115
114	9	10	11	12	13	13	15AK	15AK	14AK	15AK	18BK	18BK	21BK	21BK	24BK	25BK	20AK	22AK	26CK	26BK	114
113	8	10	11	12	13	13	15AK	14AK	14AK	15AK	18BK	17BK	21BK	21BK	23BK	25BK	20AK	22AK	26CK	26BK	113
112	8	10	11	12	13	13	15AK	14AK	14AK	15AK	18BK	17BK	21AK	20BK	23BK	25BK	19AK	22AK	26CK	26BK	112
111	8	10	11	12	13	13	14	14AK	14AK	14AK	17AK	17BK	20AK	20BK	23BK	24BK	19AK	21AK	25BK	25BK	111
110	8	10	11	12	13	13	14	14AK	14AK	14AK	17AK	17BK	20AK	20BK	23BK	24BK	19AK	21AK	25BK	25AK	110
109	8	9	10	11	13	12	14	14AK	13AK	14AK	17AK	16BK	20AK	20BK	22BK	24BK	19	21AK	25BK	25AK	109
108	8	9	10	11	12	12	14	14AK	13AK	14AK	17AK	16BK	20AK	19BK	22BK	23BK	18	21AK	24BK	24AK	108
107	8	9	10	11	12	12	14	13AK	13AK	14AK	16AK	16BK	20AK	19BK	22BK	23BK	18	20AK	24BK	24AK	107
106	8	9	10	11	12	12	14	13AK	13	13AK	16AK	16BK	19AK	19BK	22BK	23BK	18	20AK	24BK	24AK	106
105	8	9	10	11	12	12	13	13AK	13	13AK	16AK	15BK	19AK	19BK	21BK	22BK	17	20AK	24BK	23AK	105
104	8	9	10	11	12	12	13	13AK	13	13AK	16AK	15BK	19AK	19AK	21BK	22BK	17	19	23BK	23AK	104
103	8	9	10	11	12	12	13	13AK	13	13AK	15AK	15BK	19AK	18AK	21BK	22BK	17	19	23BK	22AK	103
102	8	9	10	10	12	11	13	12AK	12	13AK	15AK	15AK	19AK	18AK	21AK	22BK	16	19	23BK	22AK	102
101	7	9	9	10	11	11	13	12	12	12	15AK	14AK	18AK	18AK	20AK	21BK	16	18	22AK	22AK	101
100	7	9	9	10	11	11	12	12	12	12	15AK	14AK	18AK	18AK	20AK	21BK	16	18	22AK	21AK	100
99	7	8	9	10	11	11	12	12	12	12	14AK	14AK	18AK	18AK	20AK	21AK	16	18	22AK	21	99
98	7	8	9	10	11	11	12	12	12	12	14AK	14AK	18AK	17AK	19AK	20AK	15	17	22AK	21	98
97	7	8	9	10	11	11	12	11	11	11	14AK	13AK	18AK	17AK	19AK	20AK	15	17	21AK	20	97
96	7	8	9	10	11	10	12	11	11	11	14	13AK	17	17AK	19AK	20AK	15	17	21AK	20	96
95	7	8	9	9	11	10	12	11	11	11	14	13AK	17	17AK	19AK	19AK	14	17	21AK	20	95
94	7	8	9	9	10	10	11	11	11	11	13	13AK	17	16AK	18AK	19AK	14	16	20AK	19	94
93	7	8	8	9	10	10	11	11	11	11	13	12AK	17	16AK	18AK	19AK	14	16	20AK	19	93
92	7	8	8	9	10	10	11	11	11	10	13	12AK	17	16AK	18AK	18AK	14	16	20AK	19	92
91	7	8	8	9	10	10	11	10	10	10	13	12AK	16	16	18AK	18AK	13	15	20AK	18	91
90	7	8	8	9	10	10	11	10	10	10	12	12AK	16	16	17AK	18AK	13	15	19AK	18	90
89	6	7	8	9	10	9	10	10	10	10	12	11AK	16	15	17AK	18AK	13	15	19	18	89
88	6	7	8	8	10	9	10	10	10	10	12	11AK	16	15	17AK	17AK	12	14	19	17	88
87	6	7	8	8	9	9	10	10	10	9	12	11AK	15	15	16AK	17AK	12	14	18	17	87
86	6	7	8	8	9	9	10	9	10	9	11	11	15	15	16	17AK	12	14	18	17	86
85	6	7	7	8	9	9	10	9	9	9	11	10	15	14	16	16AK	12	13	18	16	85
84	6	7	7	8	9	9	10	9	9	9	11	10	15	14	16	16AK	11	13	18	16	84
83	6	7	7	8	9	9	9	9	9	9	11	10	15	14	15	16AK	11	13	17	16	83
82	6	7	7	8	9	8	9	9	9	8	10	10	14	14	15	15AK	11	13	17	15	82
81	6	7	7	7	9	8	9	8	9	8	10	9	14	14	15	15	10	12	17	15	81
80	6	7	7	7	8	8	9	8	9	8	10	9	14	13	15	15	10	12	16	15	80
79	6	6	7	7	8	8	9	8	8	8	10	9	14	13	14	14	10	12	16	14	79
78	6	6	7	7	8	8	8	8	8	8	10	9	14	13	14	14	9	11	16	14	78
77	5	6	6	7	8	8	8	8	8	7	9	8	13	13	14	14	9	11	16	14	77
76	5	6	6	7	8	7	8	7	8	7	9	8	13	13	13	13	9	11	15	13	76
75	5	6	6	7	8	7	8	7	8	7	9	8	13	12	13	13	9	10	15	13	75
74	5	6	6	6	8	7	8	7	7	7	9	8	13	12	13	13	8	10	15	13	74
73	5	6	6	6	7	7	8	7	7	6	8	7	13	12	13	13	8	10	14	12	73
72	5	6	6	6	7	7	7	7	7	6	8	7	12	12	12	12	8	9	14	12	72
71	5	6	6	6	7	7	7	7	7	6	8	7	12	11	12	12	7	9	14	12	71
70	5	6	6	6	7	7	7	6	7	6	8	7	12	11	12	12	7	9	14	11	70
69	5	5	5	6	7	6	7	6	7	6	7	6	12	11	12	11	7	9	13	11	69
68	5	5	5	5	7	6	7	6	6	5	7	6	12	11	11	11	7	8	13	11	68
67	5	5	5	5	7	6	6	6	6	5	7	6	11	11	11	11	6	8	13	10	67
66	5	5	5	5	6	6	6	6	6	5	7	6	11	10	11	10	6	8	12	10	66
65	4	5	5	5	6	6	6	5	6	5	6	5	11	10	11	10	6	7	12	10	65
64	4	5	5	5	6	6	6	5	6	5	6	5	11	10	10	10	5	7	12	9	64
63	4	5	5	5	6	6	6	5	6	4	6	5	11	10	10	9	5	7	12	9	63
62	4	5	5	5	6	5	6	5	5	4	6	5	10	10	10	9	5	6	11	9	62
61	4	5	4	4	6	5	5	5	5	4	6	4	10	9	9	9	5	6	11	8	61
60	4	5	4	4	6	5	5	4	5	4	5	4	10	9	9	8	4	6	11	8	60
59	4	4	4	4	5	5	5	4	5	4	5	4	10	9	9	8	4	0	10	0	59
58	4	4	4	4	5	5	5	4	5	3	5	4	9	9	9	8	4	0	10	0	58
57	4	4	4	4	5	5	5	4	5	3	5	3	9	8	8	8	3	0	10	0	57
56	4	4	4	4	5	5	4	4	4	3	4	3	9	8	8	7	3	0	10	0	56
55	4	4	4	4	5	4	4	4	4	3	4	3	9	8	8	7	3	0	9	0	55
54	4	4	4	3	5	4	4	3	4	3	4	3	9	8	8	7	0	0	9	0	54
53	3	4	3	3	5	4	4	3	4	2	4	2	8	8	7	6	0	0	9	0	53
52	3	4	3	3	4	4	4	3	4	2	3	2	8	7	7	6	0	0	8	0	52
51	3	4	3	3	4	4	4	3	4	2	3	2	8	7	7	6	0	0	8	0	51
50	3	4	3	3	4	4	3	3	3	2	3	2	8	7	6	5	0	0	8	0	50
49	3	3	3	3	4	3	3	2	3	0	3	0	8	7	6	5	0	0	0	0	49
48	3	3	3	3	4	3	3	2	3	0	2	0	7	7	6	5	0	0	0	0	48
43-47	3	3	3	2	4	3	3	2	3	0	2	0	7	6	6	4	0	0	0	0	43-47
39-42	2	3	2	2	3	2	2	1	2	0	0	0	6	5	4	0	0	0	0	0	39-42
34-38	2	2	1	1	2	2	1	0	0	0	0	0	5	4	0	0	0	0	0	0	34-38
30-33	2	1	1	0	2	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	30-33
25-29	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25-29
18-24	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18-24
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	

8.6.5 TWO-HAND SWORD ATTACK TABLE

Weapon Type: Two-handed

Length: 3.5-6.5 feet

Weight: 5-12 pounds

Fumble Range: 01-05

Range (OB Mod): —

	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
150	18EK	20EK	22EK	24EK	30EK	30EK	33EK	33EK	34ES	36ES	40ES	40ES	38ES	38ES	43ES	46ES	40ES	43ES	46ES	48ES	150
149	18EK	20EK	22EK	24EK	30EK	30EK	33EK	33EK	34ES	36ES	40ES	40ES	38ES	38ES	43ES	46ES	40ES	43ES	46ES	48ES	149
148	18EK	20EK	22EK	24EK	30EK	30EK	33EK	33EK	34ES	36ES	39ES	40ES	38ES	38ES	43ES	46ES	39ES	42ES	46ES	47ES	148
147	18EK	20EK	22EK	24EK	30EK	30EK	32EK	32EK	33ES	35ES	39ES	39ES	37ES	37ES	42ES	45ES	39ES	42ES	45ES	47ES	147
146	18EK	20EK	22EK	23EK	29EK	29EK	32EK	32EK	33ES	35ES	38ES	39ES	37ES	37ES	42ES	45ES	38ES	41ES	45ES	46ES	146
145	18EK	20EK	21EK	23EK	29EK	29EK	32EK	32EK	33ES	34ES	38ES	38ES	37ES	37ES	41ES	44ES	38ES	41ES	44ES	46ES	145
144	18EK	19EK	21EK	23EK	29EK	29EK	31EK	31EK	32ES	34ES	37ES	38ES	36ES	36ES	41ES	44ES	37ES	40ES	44ES	45ES	144
143	17EK	19EK	21EK	23EK	28EK	28EK	31EK	31EK	32ES	33ES	37ES	37ES	36ES	36ES	40ES	43ES	37ES	40ES	43ES	44ES	143
142	17DK	19EK	21EK	22EK	28EK	28EK	31EK	30EK	31ES	33ES	36ES	37ES	36ES	35ES	40ES	43ES	36ES	39ES	43ES	44ES	142
141	17DK	19DK	20EK	22EK	28EK	28EK	30EK	30EK	31ES	32ES	36ES	36ES	35ES	35ES	39ES	42ES	35ES	39ES	42ES	43ES	141
140	17DK	19DK	20EK	22EK	27EK	27EK	30EK	30EK	31ES	32ES	35ES	36ES	35ES	35ES	39ES	42ES	35ES	38ES	42ES	43ES	140
139	17DK	18DK	20DK	22EK	27ES	27EK	29EK	29EK	30ES	31ES	35ES	36ES	34ES	34ES	38ES	41ES	34ES	37ES	41ES	42ES	139
138	17DK	18DK	20DK	21EK	27DK	27ES	29EK	29EK	30ES	31ES	34ES	35ES	34ES	34ES	38ES	41ES	34ES	37ES	41ES	42ES	138
137	17DK	18DK	19DK	21EK	27DS	26DK	29DS	28EK	29ES	30ES	34ES	34ES	34ES	33ES	38ES	40ES	33ES	36ES	40ES	41ES	137
136	16DK	18DK	19DK	21DK	26DK	26DS	28DK	28EK	29ES	30ES	33ES	34ES	33ES	33ES	37ES	40ES	33ES	36ES	40ES	40ES	136
135	16CK	18DK	19DK	20DK	26DS	26DK	28DS	28ES	29DS	29ES	33ES	33ES	33ES	33ES	37ES	39ES	32ES	35ES	39ES	40ES	135
134	16CS	17CK	19DK	20DK	26DK	25DS	28DK	27DK	28DS	29ES	32ES	33ES	33ES	32ES	36ES	39ES	32ES	35ES	39ES	39ES	134
133	16CK	17CS	19DK	20DK	25DS	25DK	27DS	27DS	28DS	28ES	32ES	32ES	32ES	32ES	36ES	38ES	31ES	34ES	38ES	39ES	133
132	16CS	17CK	18DK	20DK	25DK	25DS	27DK	26DK	27DS	28ES	31DS	32ES	32DS	31ES	35ES	38ES	30ES	34ES	38ES	38ES	132
131	16CK	17CS	18DK	19DK	25DS	24DK	26DS	26DS	27DS	27DS	31DS	31ES	31DS	31ES	35ES	37ES	30ES	33ES	37ES	38ES	131
130	15CS	17CK	18DK	19DK	24DK	24DS	26DK	26DK	27DS	27DS	30DS	31DS	31DS	31ES	34ES	37ES	29ES	32ES	37ES	37ES	130
129	15CK	17CS	18CS	19DK	24DS	24DK	26DS	25DS	26DS	26DS	30DS	31DS	31DS	30DS	34ES	36ES	29ES	32ES	37ES	36ES	129
128	15CS	16CK	17CK	19DK	24DK	23DS	25DK	25DK	26DS	26DS	29DS	30DS	30DS	30DS	33ES	36ES	28ES	31ES	36ES	36ES	128
127	15BK	16CS	17CS	18DK	24DS	23DK	25DS	24DS	25DS	25DS	29DS	30DS	30DS	29DS	33DS	35ES	28DS	31ES	36ES	35ES	127
126	15BS	16CK	17CK	18DK	23CK	23DS	25DK	24DK	25DS	25DS	28DS	29DS	30DS	29DS	32DS	35DS	27DS	30DS	35ES	35ES	126
125	15BK	16BS	17CS	18DS	23CS	22DK	24DS	24DS	25DS	25DS	28DS	29DS	29DS	29DS	32DS	34DS	26DS	30DS	35ES	34ES	125
124	15BS	16BK	16CK	18DK	23CK	22CS	24CK	23DK	24DS	24DS	27DS	28DS	29DS	28DS	32DS	34DS	26DS	29DS	34ES	34ES	124
123	14AK	15BS	16CS	17DS	22CS	22CK	23CS	23DS	24DK	24DS	27DS	28DS	28DS	28DS	31DS	33DS	25DS	29DS	34ES	33ES	123
122	14AS	15BK	16CK	17CK	22CK	22CS	23CK	22DK	23DS	23DK	26DS	27DS	28DS	27DS	31DS	33DS	25DS	28DS	33ES	32ES	122
121	14AK	15BS	16CS	17CS	22CS	21CK	23CS	22DS	23CK	23DS	26DS	27DS	28DS	27DS	30DS	32DS	24DS	27DS	33ES	32ES	121
120	14AS	15BK	16CK	16CK	21CK	21CS	22CK	22DK	23CS	22DK	25DS	26DS	27DS	27DS	30DS	32DS	24DS	27DS	32ES	31DS	120
119	14AK	15AS	15CS	16CS	21CS	21CK	22CS	21DS	22CK	22DS	25DK	26DS	27DS	26DS	29DS	31DS	23DS	26DS	32ES	31DS	119
118	14AS	14AK	15BK	16CK	21CK	20CS	22CK	21DK	22CS	21DK	24DS	25DK	27DS	26DS	29DS	31DS	23DS	26DS	31DS	30DS	118
117	13AK	14AS	15BS	16CS	21CS	20CK	21CS	20CS	21CK	21DS	24DK	25DS	26DS	25DS	28DS	30DS	22DS	25DS	31DS	30DS	117
116	13AS	14AK	15BK	15CK	20CK	20CS	21CK	20CK	21CS	20DK	23DS	24DK	26CS	25DS	28DS	30DS	21DS	25DS	30DS	29DS	116
115	13AK	14AS	14BS	15CS	20CS	19CK	20CS	20CS	21CK	20DS	23DK	24DS	25CS	25DS	27DS	29DS	21DS	24DS	30DS	28DS	115
114	13	14AK	14BK	15CK	20BK	19CS	20CK	19CK	20CS	19CK	22CS	23DK	25CS	24DS	27DS	29DS	20DS	24DS	29DS	28DS	114
113	13	14AS	14BS	15CS	19BS	19CK	20CS	19CS	20CK	19CS	22CK	23DS	25CS	24DS	27DS	28DS	20DS	23DS	29DS	27DS	113
112	13	13AK	14BK	14CK	19BK	19CS	19CK	18CK	19CS	18CK	21CS	22DK	24CS	23DS	26DS	28DS	19DS	23DS	28DS	27DS	112
111	13	13AS	13AS	14CS	19BS	18BK	19CS	18CS	19CK	18CS	21CK	22DS	24CS	23DS	26DS	27DS	19DS	22DS	28DS	26DS	111
110	12	13AK	13AK	14CK	18BK	18BS	19CK	18CK	19CS	17CK	20CS	21CK	24CS	23DS	25DS	27DS	18DS	21DS	27DS	26DS	110
109	12	13	13AS	14BS	18BS	17BK	18CS	17CS	18CK	17CS	20CK	21CS	23CS	22DS	25DS	26DS	18DS	21DS	27DS	25DS	109
108	12	13	13AK	13BK	18AK	17BS	18BK	17CK	18CS	16CK	19CS	21CK	23CS	22CS	24DS	26DS	17CS	20DS	27DS	24DS	108
107	12	12	13AS	13BS	18AS	17BK	17BS	17CS	18CK	16CS	19CK	20CS	22CS	21CS	24DS	25DS	16CS	20CS	26DS	24DS	107
106	12	12	12AK	13BK	17AK	16BS	17BK	16CK	17CS	16CK	18CS	20CK	22CS	21CS	23CS	25DS	16CS	19CS	26DS	23DS	106
105	12	12	12AS	12BS	17AS	16BK	17BS	16CS	17CK	15CS	18CK	19CS	22CK	21CS	23CS	24DS	15CS	19CS	25DS	23DS	105
104	11	12	12AK	12BK	17AK	16AS	16BK	15CK	16BS	14CK	17CS	19CK	21CS	20CS	22CS	24CS	15CS	18CS	25DS	22DS	104
103	11	12	12AS	12BS	16AS	16AK	16BS	15CS	16BK	14CS	17CK	18CS	21CK	20CS	22CS	23CS	14CS	18CS	24DS	22DS	103
102	11	11	11AK	12BK	16AK	15AS	16BK	15CK	16BS	14CK	16CS	18CK	21CS	20CK	21CS	23CS	14CS	17CS	24DS	21DS	102
101	11	11	11AS	11AS	16AS	15AK	15BS	14BS	15BK	13CS	16CK	17CS	20CK	19CS	21CS	22CS	13CS	16CS	23DS	20DS	101
100	11	11	11AK	11AK	15AK	15AS	15AK	14BK	15BS	13CK	15CS	17CK	20CS	19CK	21CS	22CS	12CS	16CS	23DS	20DS	100
99	11	11	11	11AS	15	14AK	15AS	13BS	14BK	12CS	15CK	16CS	19CK	18CS	20CK	21CK	12CS	15CS	22DS	19CS	99
98	11	11	10	11AK	15	14AS	14AK	13BK	14BS	12CK	14CS	16CK	19CS	18CK	20CS	21CS	11CS	15CS	22DS	19CS	98
97	10	11	10	10AS	14	14AK	14AS	13BS	14BK	11CS	14CK	15CS	19BK	18CS	19CK	20CK	11CK	14CK	21DS	18CS	97
96	10	10	10	10AK	14	13AS	13AK	12BK	13BS	11BK	13CS	15CK	18BS	17CK	19CS	20CS	10CS	14CS	21CS	18CS	96
95	10	10	10	10AS	14	13AK	13AS	12BS	13BK	10BS	13CK	14CS	18BK	17CS	18CK	19CK	10CK	13CK	20CS	17CS	95
94	10	10	10	10AK	14	13	13AK	11BK	12AS	10BK	12BS	14CK	18BS	16CK	18CS	19CS	9CS	13BS	20CS	16CK	94
93	10	10	9	9AS	13	12	12AS	11BS	12AK	9BS	12BK	13CS	17BK	16CS	17CK	18CK	9CK	12BK	19CS	16CS	93
92	10	10	9	9AK	13	12	12AK	11AK	12AS	9BK	11BS	13CK	17BS	16CK	17CS	18CS	8BS	11BS	19CS	15CK	92
91	9	9	9	9AS	13	12	12AS	10AS	11AK	8BS	11BK	12CS	16BK	15CS	16CK	17CK	7BK	11BK	18CS	15CS	91
90	9	9	9	8AK	12	11	11AK	10AK	11AS	8BK	10BS	12BK	16BS	15CK	16CS	17CS	7BS	10BS	18CS	14CK	90
89	9	9	8	8	12	11	11	9AS	10AK	7BS	10BK	12BS	16BK	14CS	16CK	16BK	6BK	10AK	18CS	14CS	89
88	9	9	8	8	12	11	10	9AK	10AS	7BK	9BS	11BK	15BS	14CK	15BS	16BS	6AS	9AS	17CS	13CK	88
87	9	9	8	8	11	10	10	9AS	10AK	6BS	9BK	11BS	15BK	14BS	15BK	15BK	5AK	9AK	17CS	12BS	87
86	9	8	8	7	11	10	10	8AK	9AS	6AK	8BS	10BK	15BS	13BK	14BS	15BS	5AS	8AS	16CK	12BK	86
85	9	8	7	7	11	10	9	8AS	9AK	5AS	8BK	10BS	14AK	13BS	14BK	14BK	4AK	8AK	16CS	11BS	85
84	8	8	7	7	11	9	9	7AK	8	5AK	7AS	9BK	14AS	12BK	13BS	14BS	0	7	15CK	11AK	84
83	8	8	7	7	10	9	9	7AS	8	4AS	7AK	9BS	13AK	12BS	13BK	13BK	0	0	15CS	10AS	83
82	8	8	7	6	10	9	8	7AK	8	4AK	6AS	8BK	13AS	12BK	12BS	13BS	0	0	14CK	10AK	82
81	8	8	7	6	10	9	8	6AS	7	3AS	6AK	8BS	13AK	11BS	12BK	12BK	0	0	14BS	9	81
80	8	7	6	6	9	8	7	6AK	7	3AK	5AS	7BK	12AS	11BK	11BS	12BS	0	0	13BK	0	80
79	8	7	6	6	9	8	7	5	6	0	5AK	7AS	12AK	10BS	11BK	11BK	0	0	13BS	0	79
78	7	7	6	5	9	8	7	5	6	0	4AS	6AK	12AS	10BK	10BS	11BS	0	0	12BK	0	78
77	7	7	6	5	8	7	6	5	6	0	4AK	6AS	11AK	10BS	10BK	10AK	0	0	12BS	0	77
76	7	7	5	5	8	7	6	4	5	0	3AS	5AK	11AS	9AK	10AS	10AS	0	0	11BK	0	76
75	7	6	5	4	8	7	6	4	5	0	3AK	5AS	10AK	9AS	9AK	9AK	0	0	11AS	0	75
74	7	6	5	4	8	6	5	3	4	0	0	4AK	10	8AK	9AS	9AS	0	0	10AK	0	74
73	7	6	5	4	7	6	5	3	4	0	0	4AS	10	8AS	8AK	8AK	0	0	10AS	0	73
72	7	6	4	4	7	6	4	3	4	0	0	3AK	9	8AK	8AS	8AS	0	0	9AK	0	72
71	6	6	4	3	7	5	4	2	3	0	0	3	9	7AS	7AK	7AK	0	0	9	0	71
70	6	5	4	3	6	5	4	2	3	0	0	0	9	7AK	7AS	7AS	0	0	0	0	70
69	6	5	4	3	6	5	3	0	0	0	0	0	8	6	6AK	6AK	0	0	0	0	69
68	6	5	4	3	6	4	3	0	0	0	0	0	8	6	6AS	6AS	0	0	0	0	68
67	6	5	3	2	5	4	3	0	0	0	0	0	7	6	5AK	5AK	0	0	0	0	67
66	6	5	3	2	5	4	2	0	0	0	0	0	7	5	5	5	0	0	0	0	66
65	5	5	3	2	5	3	2	0	0	0	0	0	7	5	0	0	0	0	0	0	65
64	5	4	3	0	5	3	0	0	0	0	0	0	6	0	0	0	0	0	0	0	64
63	5	4	2	0	4	3	0	0	0	0	0	0	6	0	0	0	0	0	0	0	63
62	5	4	2	0	4	2	0	0	0	0	0	0	6	0	0	0	0	0	0	0	62
61	5	4	2	0	4	2	0	0	0	0	0	0	5	0	0	0	0	0	0	0	61
60	5	4	2	0	3	2	0	0	0	0	0	0	5	0	0	0	0	0	0	0	60
59	5	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59
58	4	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58
57	4	3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57
56	4	3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56
55	4	3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55
54	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54
53	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53
52	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52
51	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51
50	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
49	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
48	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
47	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
46	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
45	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
44	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
43	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
40-42	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40-42
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	



8.7.1 JAVELIN ATTACK TABLE

Weapon Type: Pole Arm

Length: 4-7 feet

Weight: 3-5 pounds

Fumble Range: 01-04 UM

Range (OB Mod):
1'-10' (+0)
11'-50' (–20)
51'-100' (–40)



	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
150	6EP	8EP	10EP	12EP	15EP	15EP	18EP	18EP	16EP	18EP	22EP	22EP	16EP	16EP	21EP	24EP	18EP	21EP	24EP	26EP	150
149	6EP	8EP	10EP	12EP	15EP	15EP	18EP	18EP	16EP	18EP	22EP	22EP	16EP	16EP	21EP	24EP	18EP	21EP	24EP	26EP	149
148	6DP	8DP	10EP	12EP	15EP	15EP	18EP	18EP	16EP	18EP	22EP	22EP	16EP	16EP	21EP	24EP	18EP	21EP	24EP	26EP	148
147	6DP	8DP	10EP	12EP	15EP	15EP	18EP	18EP	16EP	18EP	22EP	22EP	16EP	16EP	21EP	24EP	18EP	21EP	24EP	26EP	147
146	6CP	8CP	10DP	12EP	15EP	15EP	18EP	18EP	16EP	17EP	21EP	21EP	16EP	16EP	21EP	23EP	17EP	20EP	24EP	25EP	146
145	6CP	8CP	10DP	12EP	15EP	15EP	17EP	17EP	16EP	17EP	21EP	21EP	16EP	16EP	20EP	23EP	17EP	20EP	23EP	25EP	145
144	6CP	8CP	10DP	12EP	15EP	14EP	17EP	17EP	15EP	17EP	21EP	21EP	16EP	16EP	20EP	23EP	17EP	20EP	23EP	25EP	144
143	6BP	8CP	10DP	11DP	14DP	14DP	17EP	17EP	15DP	17EP	20EP	20EP	15EP	15EP	20EP	23EP	17EP	20EP	23EP	24EP	143
142	6BP	8BP	10CP	11DP	14DP	14DP	17DP	17EP	15DP	16EP	20EP	20EP	15EP	15EP	20EP	22EP	16EP	19EP	23EP	24EP	142
141	6BP	8BP	9CP	11DP	14DP	14DP	17DP	16EP	15DP	16EP	20EP	20EP	15EP	15EP	19EP	22EP	16EP	19EP	22EP	24EP	141
140	6AP	8BP	9CP	11DP	14DP	14DP	16DP	16EP	15DP	16DP	20DP	20EP	15DP	15EP	19EP	22EP	16EP	19EP	22EP	23EP	140
139	6AP	8BP	9CP	11DP	14DP	14DP	16DP	16DP	14DP	16DP	19DP	19EP	15DP	15EP	19EP	21EP	16EP	18EP	22EP	23EP	139
138	6AP	8AP	9CP	11DP	14DP	13DP	16DP	16DP	14DP	15DP	19DP	19EP	15DP	15DP	19EP	21EP	15EP	18EP	22EP	23EP	138
137	6AP	7AP	9CP	11DP	13DP	13DP	16DP	15DP	14DP	15DP	19DP	19EP	15DP	14DP	18EP	21EP	15DP	18EP	21EP	22EP	137
136	6AP	7AP	9BP	10DP	13CP	13DP	15DP	15DP	14DP	15DP	18DP	18DP	14DP	14DP	18DP	21EP	15DP	18EP	21EP	22EP	136
135	6AK	7AP	9BP	10CP	13CP	13CP	15DP	15DP	14CP	15DP	18DP	18DP	14DP	14DP	18DP	20EP	15DP	17EP	21EP	22EP	135
134	6	7AP	9BP	10CP	13CP	13CP	15DP	15DP	13CP	14DP	18DP	18DP	14DP	14DP	18DP	20EP	14DP	17DP	21EP	22EP	134
133	6	7AP	9BP	10CP	13CP	13CP	15CP	15DP	13CP	14DP	18DP	17DP	14DP	14DP	18DP	20DP	14DP	17DP	20EP	21EP	133
132	5	7AP	9BP	10CP	13CP	12CP	15CP	14DP	13CP	14DP	17DP	17DP	14DP	14DP	17DP	20DP	14DP	17DP	20EP	21EP	132
131	5	7AP	9BP	10CP	12CP	12CP	14CP	14DP	13CP	14DP	17DP	17DP	14DP	14DP	17DP	19DP	14DP	16DP	20EP	21EP	131
130	5	7AK	8BP	10CP	12CP	12CP	14CP	14DP	13CP	13DP	17DP	17DP	14CP	13DP	17DP	19DP	13DP	16DP	20EP	20EP	130
129	5	7	8AP	9CP	12BP	12CP	14CP	14DP	12CP	13CP	16DP	16DP	13CP	13DP	17DP	19DP	13DP	16DP	19EP	20EP	129
128	5	7	8AP	9BP	12BP	12CP	14CP	13DP	12CP	13CP	16DP	16DP	13CP	13DP	16DP	18DP	13DP	15DP	19EP	20EP	128
127	5	7	8AP	9BP	12BP	12BP	14CP	13CP	12CP	13CP	16CP	16DP	13CP	13DP	16DP	18DP	13DP	15DP	19EP	19DP	127
126	5	7	8AP	9BP	12BP	11BP	13CP	13CP	12CP	12CP	16CP	15DP	13CP	13DP	16DP	18DP	12DP	15DP	19DP	19DP	126
125	5	6	8AP	9BP	11AP	11BP	13CP	13CP	12CP	12CP	15CP	15DP	13CP	13DP	16DP	18DP	12CP	15DP	19DP	19DP	125
124	5	6	8AP	9BP	11AP	11BP	13CP	12CP	11CP	12CP	15CP	15DP	13CP	12DP	15DP	17DP	12CP	14DP	18DP	18DP	124
123	5	6	7AP	9BP	11AP	11BP	13CP	12CP	11CP	12CP	15CP	15DP	13CP	12DP	15DP	17DP	12CP	14DP	18DP	18DP	123
122	5	6	7AP	8BP	11AP	11BP	12CP	12CP	11BP	11CP	14CP	14DP	12CP	12CP	15DP	17DP	11CP	14DP	18DP	18DP	122
121	5	6	7AP	8AP	11AP	11AP	12BP	12CP	11BP	11CP	14CP	14DP	12CP	12CP	15CP	16DP	11CP	13CP	18DP	17DP	121
120	5	6	7AK	8AP	11AP	10AP	12BP	12CP	11BP	11CP	14CP	14CP	12CP	12CP	15CP	16DP	11CP	13CP	17DP	17DP	120
119	5	6	7	8AP	10AP	10AP	12BP	11CP	11BP	11CP	14CP	13CP	12CP	12CP	14CP	16DP	11CP	13CP	17DP	17DP	119
118	5	6	7	8AP	10AP	10AP	12BP	11CP	10BP	10CP	13CP	13CP	12CP	11CP	14CP	16DP	10CP	13CP	17DP	17DP	118
117	5	6	7	8AP	10AK	10AP	11BP	11CP	10BP	10CP	13CP	13CP	12CP	11CP	14CP	15DP	10CP	12CP	17DP	16DP	117
116	5	6	7	8AP	10	10AP	11BP	11CP	10BP	10BP	13CP	12CP	11CP	11CP	14CP	15DP	10CP	12CP	16DP	16DP	116
115	5	6	7	7AP	10	10AP	11AP	10BP	10BP	10BP	12CP	12CP	11BP	11CP	13CP	15CP	10CP	12CP	16DP	16DP	115
114	4	6	6	7AP	10	9AP	11AP	10BP	10BP	9BP	12CP	12CP	11BP	11CP	13CP	15CP	9CP	12CP	16DP	15DP	114
113	4	5	6	7AP	10	9AP	10AP	10BP	9BP	9BP	12CP	12CP	11BP	11CP	13CP	14CP	9BP	11CP	16DP	15DP	113
112	4	5	6	7AP	9	9AK	10AP	10BP	9BP	9BP	12CP	11CP	11BP	11CP	13CP	14CP	9BP	11CP	15DP	15CP	112
111	4	5	6	7AP	9	9	10AP	9BP	9BP	9BP	11BP	11CP	11BP	10CP	12CP	14CP	9BP	11BP	15DP	14CP	111
110	4	5	6	7AK	9	9	10AP	9BP	9AP	8BP	11BP	11CP	11BP	10CP	12CP	13CP	8BP	10BP	15CP	14CP	110
109	4	5	6	7	9	9	10AP	9BP	9AP	8BP	11BP	10CP	10BP	10CP	12CP	13CP	8BP	10BP	15CP	14CP	109
108	4	5	6	6	9	8	9AP	9BP	8AP	8BP	10BP	10CP	10BP	10CP	12CP	13CP	8BP	10BP	14CP	13CP	108
107	4	5	6	6	9	8	9AK	9AP	8AP	8BP	10BP	10CP	10BP	10CP	12BP	13CP	8BP	10BP	14CP	13CP	107
106	4	5	5	6	8	8	9	8AP	8AP	7BP	10BP	9CP	10BP	10BP	11BP	12CP	7AP	9BP	14CP	13CP	106
105	4	5	5	6	8	8	9	8AP	8AP	7BP	10BP	9CP	10BP	9BP	11BP	12CP	7AP	9BP	14CP	12CP	105
104	4	5	5	6	8	8	9	8AP	8AP	7AP	9BP	9CP	10BP	9BP	11BP	12BP	7AP	9BP	13CP	12CP	104
103	4	5	5	6	8	7	8	8AP	7AP	7AP	9BP	9BP	10BP	9BP	11BP	12BP	7AP	9AP	13CP	12BP	103
102	4	5	5	6	8	7	8	7AP	7AP	6AP	9BP	8BP	9BP	9BP	10BP	11BP	6AP	8AP	13CP	12BP	102
101	4	4	5	5	8	7	8	7AP	7AP	6AP	8BP	8BP	9AP	9BP	10BP	11BP	6AP	8AP	13CP	11BP	101
100	4	4	5	5	7	7	8	7AP	7AK	6AP	8BP	8BP	9AP	9BP	10BP	11BP	6AK	8AP	13CP	11BP	100
99	4	4	5	5	7	7	7	7AP	7	6AP	8AP	7BP	9AP	9BP	10BP	10BP	6	7AP	12CP	11BP	99
98	4	4	5	5	7	7	7	6AP	6	5AP	8AP	7BP	9AP	8BP	9BP	10BP	5	7AP	12BP	10BP	98
97	4	4	4	5	7	6	7	6AK	6	5AP	7AP	7BP	9AP	8BP	9BP	10BP	5	7AP	12BP	10BP	97
96	3	4	4	5	7	6	7	6	6	5AP	7AP	7BP	9AP	8BP	9BP	10BP	5	7AP	12BP	10AP	96
95	3	4	4	5	7	6	7	6	6	5AK	7AP	6BP	8AP	8BP	9BP	9BP	5	6AK	11BP	9AP	95
94	3	4	4	4	6	6	6	6	6	4	6AP	6BP	8AP	8BP	9BP	9BP	4	6	11BP	9AP	94
93	3	4	4	4	6	6	6	5	6	4	6AP	6BP	8AP	8AP	8BP	9BP	4	6	11BP	9AP	93
92	3	4	4	4	6	6	6	5	5	4	6AP	5BP	8AP	7AP	8AP	8BP	4	0	11BP	8AP	92
91	3	4	4	4	6	5	6	5	5	4	6AP	5BP	8AP	7AP	8AP	8BP	4	0	10BP	8AP	91
90	3	4	4	4	6	5	5	5	5	3	5AK	5BP	8AK	7AP	8AP	8BP	3	0	10BP	8	90
89	3	4	4	4	6	5	5	4	5	3	5	4AP	7	7AP	7AP	8BP	3	0	10AP	0	89
88	3	3	3	4	5	5	5	4	5	3	5	4AP	7	7AP	7AP	7AP	3	0	10AP	0	88
87	3	3	3	3	5	5	5	4	4	3	4	4AP	7	7AP	7AP	7AP	0	0	9AP	0	87
86	3	3	3	3	5	5	5	4	4	2	4	4AP	7	6AP	7AP	7AP	0	0	9AP	0	86
85	3	3	3	3	5	4	4	3	4	2	4	3AP	7	6AK	6AP	7AP	0	0	9AP	0	85
84	3	3	3	3	5	4	4	3	4	2	4	3AP	7	6	6AP	6AP	0	0	9AP	0	84
83	3	3	3	3	5	4	4	3	4	2	3	3AP	7	6	6AP	6AP	0	0	8AP	0	83
82	3	3	3	3	5	4	4	3	3	0	3	2AP	6	6	6AP	6AP	0	0	8AP	0	82
81	3	3	3	3	4	4	4	3	3	0	3	2AP	6	6	6AP	5AP	0	0	8AP	0	81
80	3	3	3	2	4	4	3	2	3	0	2	2	6	6	5AK	5AP	0	0	8	0	80
79	3	3	2	2	4	3	3	2	3	0	2	0	6	5	5	5AP	0	0	0	0	79
78	2	3	2	2	4	3	3	2	3	0	2	0	6	5	5	5AP	0	0	0	0	78
77	2	3	2	2	4	3	3	2	2	0	0	0	6	5	5	4AP	0	0	0	0	77
76	2	2	2	2	4	3	2	1	2	0	0	0	6	5	4	4AP	0	0	0	0	76
75	2	2	2	2	3	3	2	1	2	0	0	0	5	5	4	4	0	0	0	0	75
74	2	2	2	2	3	3	2	1	2	0	0	0	5	5	4	0	0	0	0	0	74
73	2	2	2	1	3	2	2	1	2	0	0	0	5	4	4	0	0	0	0	0	73
72	2	2	2	1	3	2	2	0	0	0	0	0	5	4	0	0	0	0	0	0	72
71	2	2	2	1	3	2	1	0	0	0	0	0	5	4	0	0	0	0	0	0	71
70	2	2	1	1	3	2	1	0	0	0	0	0	5	4	0	0	0	0	0	0	70
69	2	2	1	1	2	2	1	0	0	0	0	0	5	4	0	0	0	0	0	0	69
68	2	2	1	1	2	2	1	0	0	0	0	0	4	4	0	0	0	0	0	0	68
67	2	2	1	0	2	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	67
66	2	2	1	0	2	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	66
65	2	2	1	0	2	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	65
64	2	1	1	0	2	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	64
63	2	1	1	0	1	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	63
62	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62
61	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61
60	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60
59	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59
58	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58
57	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57
56	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56
55	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55
54	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54
53	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53
52	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52
51	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51
50	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
49	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
48	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
47	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
46	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
45	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
44	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
43	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	

	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
150	25EP	27EP	29EP	31EP	32EP	32EP	35EP	35EP	36EP	38EP	42EP	42EP	40EP	40EP	45EP	48EP	42EP	45EP	48EP	50EP	150
149	25EP	27EP	29EP	31EP	32EP	32EP	35EP	35EP	36EP	38EP	42EP	42EP	40EP	40EP	45EP	48EP	42EP	45EP	48EP	50EP	149
148	25EP	27EP	29EP	31EP	32EP	32EP	35EP	35EP	36EP	37EP	41EP	41EP	40EP	40EP	44EP	47EP	41EP	44EP	47EP	49EP	148
147	25EP	27EP	28EP	30EP	31EP	31EP	34EP	34EP	35EP	37EP	41EP	41EP	39EP	39EP	44EP	47EP	41EP	44EP	47EP	49EP	147
146	24EP	26EP	28EP	30EP	31EP	31EP	34EP	34EP	35EP	36EP	40EP	40EP	39EP	39EP	43EP	46EP	40EP	43EP	46EP	48EP	146
145	24EP	26EP	28EP	29EP	30EP	30EP	33EP	33EP	34EP	36EP	40EP	40EP	38EP	38EP	43EP	46EP	39EP	42EP	46EP	47EP	145
144	24EP	26EP	27EP	29EP	30EP	30EP	33EP	33EP	34EP	35EP	39EP	39EP	38EP	38EP	42EP	45EP	39EP	42EP	45EP	47EP	144
143	24EP	25EP	27EP	28EP	30EP	29EP	32EP	32EP	33EP	35EP	39EP	39EP	37EP	37EP	42EP	45EP	38EP	41EP	45EP	46EP	143
142	23EP	25EP	26EP	28EP	29EP	29EP	32EP	32EP	33EP	34EP	38EP	38EP	37EP	37EP	41EP	44EP	38EP	41EP	44EP	45EP	142
141	23EK	25EP	26EP	28EP	29EP	29EP	31EP	31EP	32EP	34EP	38EP	38EP	37EP	37EP	41EP	44EP	37EP	40EP	44EP	45EP	141
140	23EP	24EK	26EP	27EP	28EP	28EP	31EP	31EP	32EP	33EP	37EP	37EP	36EP	36EP	40EP	43EP	36EP	39EP	43EP	44EP	140
139	23EK	24EP	25EP	27EP	28EP	28EP	30EP	30EP	31EP	33EP	37EP	37EP	36EP	36EP	40EP	43EP	36EP	39EP	43EP	44EP	139
138	22EP	24EK	25EK	26EP	28EP	27EP	30EP	30EP	31EP	32EP	36EP	36EP	35EP	35EP	39EP	42EP	35EP	38EP	42EP	43EP	138
137	22DK	23DP	24EP	26EP	27EP	27EP	29EP	29EP	30EP	32EP	35EP	36EP	35EP	35EP	39EP	42EP	35EP	38EP	42EP	42EP	137
136	22DP	23DK	24EK	25EK	27EP	26EP	29EP	29EP	30EP	31EP	35EP	35EP	34EP	34EP	38EP	41EP	34EP	37EP	41EP	42EP	136
135	22DK	23DP	24DP	25EP	26EP	26EP	28EP	28EP	29EP	31EP	34EP	35EP	34EP	34EP	38EP	40EP	33EP	36EP	41EP	41EP	135
134	21DP	22DK	23DK	25EK	26EP	26EP	28EP	28EP	29EP	30EP	34EP	34EP	33EP	33EP	37EP	40EP	33EP	36EP	40EP	40EP	134
133	21DK	22DP	23DP	24EP	26DP	25EP	27DP	27EP	28EP	30EP	33EP	34EP	33EP	33EP	37EP	39EP	32EP	35EP	40EP	40EP	133
132	21DP	22DK	22DK	24DK	25DP	25DP	27DP	27EP	28EP	29EP	33EP	33EP	33EP	33EP	36EP	39EP	31EP	34EP	39EP	39EP	132
131	20DK	21DP	22DP	23DP	25DP	24DP	26DP	27DP	28DP	29DP	32EP	33EP	32EP	32EP	36EP	38EP	31EP	34EP	39EP	39EP	131
130	20DP	21DK	22DK	23DK	24DP	24DP	26DP	26DP	27DP	28DP	32DP	32EP	32EP	32EP	35EP	38EP	30EP	33EP	38EP	38EP	130
129	20DK	21DP	21DP	22DP	24DP	23DP	25DP	26DP	27DP	28DP	31DP	32DP	31DP	31EP	35EP	37EP	30EP	33EP	38EP	37EP	129
128	20DP	20DK	21DK	22DK	24DP	23DP	25DP	25DP	26DP	27DP	31DP	31DP	31DP	31DP	34EP	37EP	29DP	32EP	37EP	37EP	128
127	19DK	20DP	20DP	22DP	23DP	22DP	24DP	25DP	26DP	26DP	30DP	31DP	30DP	30DP	34DP	36EP	28DP	31DP	37EP	36EP	127
126	19CP	20CK	20DK	21DK	23DP	22DP	24DP	24DP	25DP	26DP	29DP	30DP	30DP	30DP	33DP	36DP	28DP	31DP	36DP	35EP	126
125	19CK	19CP	20DP	21DP	22DP	22DP	23DP	24DP	25DP	25DP	29DP	29DP	30DP	30DP	33DP	35DP	27DP	30DP	35EP	35EP	125
124	19CP	19CK	19DK	20DK	22DP	21DP	23DP	23DP	24DP	25DP	28DP	29DP	29DP	29DP	32DP	35DP	27DP	30DP	35EP	34EP	124
123	18CK	19CP	19DP	20DP	21DP	21DP	22DP	23DP	24DP	24DP	28DP	28DP	29DP	29DP	32DP	34DP	26DP	29DP	34EP	33EP	123
122	18CP	19CK	18DK	19DK	21DP	20DP	22DP	22DP	23DP	24DP	27DP	28DP	28DP	28DP	31DP	33DP	25DP	28DP	34EP	33DP	122
121	18CK	18CP	18CP	19DP	21DP	20DP	21DP	22DP	23DP	23DP	27DP	27DP	28DP	28DP	31DP	33DP	25DP	28DP	33EP	32DP	121
120	18CP	18CK	18CK	19DK	20DK	19DP	21DP	21DP	22DP	23DP	26DP	27DP	27DP	27DP	30DP	32DP	24DP	27DP	33DP	32DP	120
119	17CK	18CP	17CP	18DP	20DP	19DP	20DP	21DP	22DP	22DP	26DP	26DP	27DP	27DP	30DP	32DP	23DP	26DP	32DP	31DP	119
118	17CP	17CK	17CK	18DK	19DK	19DP	20DP	20DP	21DP	22DP	25DP	26DP	26DP	26DP	29DP	31DP	23DP	26DP	32DP	30DP	118
117	17CK	17CP	16CP	17DP	19CP	18DK	19DP	20DP	21DP	21DP	25DP	25DP	26DP	26DP	29DP	31DP	22DP	25DP	31DP	30DP	117
116	17CP	17CK	16CK	17DK	19CK	18DP	19CK	19DP	20DP	21DP	24DP	25DP	26DP	26DP	28DP	30DP	22DP	25DP	31DP	29DP	116
115	16BK	16CP	16CP	16CP	18CP	17CK	18CP	19DP	20CP	20DP	24DP	24DP	25DP	25DP	28DP	30DP	21DP	24DP	30DP	28DP	115
114	16BP	16BK	15CK	16CK	18CK	17CP	18CK	18DK	20CP	20CP	23DP	24DP	25DP	25DP	27DP	29DP	20DP	23DP	30DP	28DP	114
113	16BK	16BP	15CP	16CP	17CP	16CK	18CP	18CP	19CP	19CP	22DP	23DP	24DP	24DP	27DP	29DP	20DP	23DP	29DP	27DP	113
112	15BP	15BK	15CK	15CK	17CK	16CP	17CK	18CK	19CP	19CP	22CP	23DP	24DP	24DP	26DP	28DP	19DP	22DP	29DP	27DP	112
111	15AK	15BP	14CP	15CP	17CP	15CK	17CP	17CP	18CP	18CK	21CP	22DP	23CP	23DP	26DP	28DP	19DP	22DP	28DP	26DP	111
110	15AP	15BK	14CK	14CK	16CK	15CP	16CK	17CK	18CP	18CP	21CP	22CP	23CP	23DP	25DP	27DP	18CP	21DP	28DP	25DP	110
109	15AK	14AP	13CP	14CP	16CP	15CK	16CP	16CP	17CP	17CK	20CP	21CP	23CP	23DP	25DP	26DP	17CP	20CP	27DP	25DP	109
108	14AP	14AK	13CK	13CK	15CK	14CP	15CK	16CK	17CK	17CP	20CK	21CP	22CP	22DP	24DP	26DP	17CP	20CP	27DP	24DP	108
107	14AK	14AP	13BP	13CP	15CP	14CP	15CP	15CP	16CP	16CK	19CP	20CP	22CP	22DP	24DP	25DP	16CP	19CP	26CP	23DP	107
106	14AP	13AK	12BK	13CK	15CK	13CP	14CK	15CK	16CK	16CP	19CK	20CP	21CP	21CP	23CP	25DP	16CP	19CP	26DP	23DP	106
105	14AK	13AP	12BP	12CP	14CP	13CK	14CP	14CP	15CP	15CK	18CP	19CK	21CP	21CP	23CP	24DP	15CK	18CK	25DP	22DP	105
104	13	13AK	11BK	12CK	14CK	12CP	13CK	14CK	15CK	14CP	18CK	19CP	20CP	20CP	22CP	24CP	14CP	17CP	25DP	21DP	104
103	13	12AP	11BP	11CP	13BP	12CK	13CP	13CP	14CP	14CK	17CP	18CK	20CP	20CP	22CP	23CP	14CK	17CK	24DP	21CP	103
102	13	12AK	11BK	11CK	13BK	12CP	12CK	13CK	14CK	13CP	16CK	18CP	19CP	19CP	21CP	23CP	13CP	16CP	24DP	20CP	102
101	13	12AP	10BP	10CP	13BP	11CK	12CP	12CP	13CP	13CK	16CP	17CK	19CP	19CP	21CP	22CP	12CK	15CK	23DP	20CP	101
100	12	11AK	10AK	10BK	12BK	11BP	11CK	12CK	13CK	12CP	15CK	16CP	19CP	19CP	20CP	22CP	12CP	15CP	22DP	19CK	100
99	12	11	9AP	10BP	12BP	10BK	11CP	11CP	12CP	12CK	15CP	16CK	18CP	18CP	20CP	21CP	11CK	14CK	22CP	18CP	99
98	12	11	9AK	9BK	11AK	10BP	10CK	11CK	12CK	11CP	14CK	15CP	18CP	18CP	19CP	21CP	11CP	14CP	21CP	18CK	98
97	12	10	9AP	9BP	11AP	9BK	10BP	10CP	12BP	11BK	14CP	15CK	17CP	17CP	19CP	20CP	10CK	13CK	21CP	17CP	97
96	11	10	8AK	8BK	10AK	9BP	9BK	10BK	11BK	10BP	13CK	14CP	17CP	17CP	18CP	19CP	9CP	12BP	20CP	16CK	96
95	11	10	8AP	8BP	10AP	8BK	9BP	10BP	11BP	10BK	13CP	14CK	16CP	16CP	18CP	19CP	9BK	12BK	20CK	16CP	95
94	11	10	7AK	7BK	10AK	8AP	8BK	9BK	10BK	9BP	12CK	13CP	16CK	16CK	17CK	18CK	8BP	11BP	19CP	15CK	94
93	10	9	7AP	7AP	9AP	8AK	8BP	9BP	10BP	9BK	12BP	13CP	16CP	16CP	17CP	18CP	8BK	11BK	19CK	15CP	93
92	10	9	7AK	7AK	9AK	7AP	7BK	8BK	9BK	8BP	11BK	12CP	15CK	15CK	16CK	17CK	7AS	10AS	18CP	14BK	92
91	10	9	6AP	6AP	8AP	7AK	7BP	8BP	9BP	8BK	11BP	12BK	15BP	15CP	16CP	17CP	6AP	9AP	18CK	13BP	91
90	10	8	6AK	6AK	8AK	6AP	6AK	7BK	8BK	7AP	10BK	11BP	14BK	14CK	15CK	16CK	6AK	9AK	17CP	13AK	90
89	9	8	5	5AP	8	6AK	6AP	7BP	8AP	7AK	9BP	11BK	14BP	14CP	15CP	16CP	5	8	17CK	12AS	89
88	9	8	5	5AK	7	5AP	5AK	6AK	7AK	6AP	9BK	10BP	13BK	13CK	14BK	15BK	0	0	16CP	11AP	88
87	9	7	5	4AP	7	5AK	5AP	6AP	7AP	6AK	8BP	10BK	13BP	13CP	14BP	15BP	0	0	16CK	11AK	87
86	9	7	4	4AK	6	5AP	4AK	5AK	6AK	5AP	8AK	9BP	12BK	12BK	13BK	14BK	0	0	15CP	0	86
85	8	7	4	4AP	6	4AK	4AP	5AP	6AP	5AK	7AP	9BK	12BS	12BS	13BS	14BS	0	0	15CK	0	85
84	8	6	3	3AK	6	4	3AK	4AK	5AK	4	7AK	8BP	12BP	12BP	12BP	13BP	0	0	14BP	0	84
83	8	6	3	3AP	5	3	3AP	4AP	5AP	0	6AP	8AK	11BK	11BK	12BK	12BK	0	0	14BK	0	83
82	8	6	3	2AK	5	3	2AK	3AK	4AK	0	6AK	7AP	11BS	11BS	11BS	12BS	0	0	13BP	0	82
81	7	5	2	2	4	2	2	3AP	4	0	5AP	7AK	10BP	10BP	11BP	11BP	0	0	13BK	0	81
80	7	5	2	0	4	2	0	2AK	0	0	5AK	6AP	10AK	10BK	10BK	11BK	0	0	12AS	0	80
79	7	5	0	0	4	0	0	2	0	0	4	6AK	9AS	9BS	10AS	10AS	0	0	12AP	0	79
78	7	4	0	0	3	0	0	0	0	0	0	5AP	9AP	9BP	9AP	10AP	0	0	11AK	0	78
77	6	4	0	0	3	0	0	0	0	0	0	5AK	9AK	9AK	9AK	9AK	0	0	11AS	0	77
76	6	4	0	0	2	0	0	0	0	0	0	4	8AS	8AS	8AS	9AS	0	0	10	0	76
75	6	3	0	0	2	0	0	0	0	0	0	0	8AP	8AP	8AP	8AP	0	0	0	0	75
74	5	3	0	0	0	0	0	0	0	0	0	0	7AK	7AK	7AK	8AK	0	0	0	0	74
73	5	3	0	0	0	0	0	0	0	0	0	0	7AS	7AS	7AS	7AS	0	0	0	0	73
72	5	2	0	0	0	0	0	0	0	0	0	0	6AP	6AP	6AP	7AP	0	0	0	0	72
71	5	2	0	0	0	0	0	0	0	0	0	0	6	6	6	6	0	0	0	0	71
70	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70
69	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69
68	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	68
67	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67
66	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66
65	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65
64	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	64
63	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63
62	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62
61	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61
60	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60
59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59
58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58
57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57
56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56
55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55
54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54
53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53
52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52
51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51
50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	

8.7.2 LANCE ATTACK TABLE

Weapon Type:
Pole Arm

Length:
9-15 feet

Weight:
8-15 pounds

Fumble Range:
01-07 UM

Range (OB Mod):
—

Note: *If a lance is used unmounted, then use the spear table.*



A L

8.7.3 POLE ARM ATTACK TABLE

Weapon Type: Pole Arm

Length: 6-15 feet

Weight: 5-12 pounds

Fumble Range: 01-07 UM

Range (OB Mod): —

	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
150	16EP	18EP	20EP	22EP	25EP	25EP	28EP	28EP	26EK	28EK	32EK	32EK	30EK	30EK	35EK	38EK	32EK	35EK	38EK	40EK	150
149	16EP	18EP	20EP	22EP	25EP	25EP	28EP	28EP	26ES	28ES	32ES	32ES	30ES	30ES	35ES	38ES	32ES	35ES	38ES	40ES	149
148	16EP	18EP	20EP	22EP	25EP	25EP	28EP	28EP	26EK	28EK	32EK	32EK	30EK	30EK	35EK	38EK	32EK	35EK	38EK	39EK	148
147	16DP	18EP	20EP	22EP	25EP	25EP	28EP	27EP	26ES	27ES	31ES	31ES	30ES	30ES	34ES	37ES	31ES	34ES	37ES	39ES	147
146	16DP	18DP	20EP	21EP	24EK	24EP	27EP	27EP	25EK	27EK	31EK	31EK	29EK	29EK	34EK	37EK	31EK	34EK	37EK	38EK	146
145	16DP	18DP	19DP	21EP	24ES	24EK	27EK	27EP	25ES	27ES	30ES	30ES	29ES	29ES	34ES	36ES	30ES	33ES	36ES	38ES	145
144	16CK	17DP	19DP	21EP	24EP	24ES	27ES	26EK	25EK	26EK	30EK	30EK	29EK	29EK	33EK	36EK	30EK	33EK	36EK	37EK	144
143	15CS	17DP	19DP	21EP	24DK	24DP	26DP	26ES	24ES	26ES	30ES	30ES	28ES	28ES	33ES	35ES	29ES	32ES	36ES	37ES	143
142	15CP	17CK	19DP	20EP	23DS	23DK	26DK	26EP	24EP	26EP	29EK	29EK	28EK	28EK	32EK	35EK	29EK	32EK	35EK	36EK	142
141	15CK	17CS	18DP	20DP	23DP	23DS	26DS	25EK	24EK	25EK	29ES	29ES	28ES	28ES	32ES	35ES	28ES	31ES	35ES	36ES	141
140	15CS	17CP	18DK	20DP	23DK	23DP	25DP	25ES	23ES	25ES	28EP	28EP	28EK	27EK	32EK	34EK	28EK	31EK	34EK	35EK	140
139	15BP	17CK	18CS	20DP	23DS	23DK	25DK	25DP	23DP	24EP	28EK	28EK	27ES	27ES	31ES	34ES	28ES	30ES	34ES	35ES	139
138	15BK	16CS	18CP	19DP	22DP	22DS	25DS	24DK	23DK	24EK	28ES	28ES	27EK	27EK	31EK	33EK	27EK	30EK	34EK	34EK	138
137	15BS	16CP	18CK	19DK	22DK	22DP	24DP	24DS	23DS	24ES	27DP	27EP	27ES	27ES	30ES	33ES	27ES	29ES	33ES	34ES	137
136	14BP	16BK	17CS	19DS	22DS	22DK	24DK	24DP	22DP	23DP	27DK	27EK	26DK	26EK	30EK	32EK	26EK	29EK	33EK	33EK	136
135	14BK	16BS	17CP	19DP	22CP	21DS	24DS	23DK	22DK	23DK	26DS	26ES	26DS	26ES	30ES	32ES	26ES	28ES	32ES	33ES	135
134	14AS	16BP	17CK	18DK	21CK	21CP	23DP	23DS	22DS	23DS	26DP	26EP	26DK	26EK	29EK	32EK	25EK	28EK	32EK	32EK	134
133	14AP	15BK	17CS	18DS	21CS	21CK	23CK	23DP	21DP	22DP	26DK	26DK	26DS	25DS	29ES	31ES	25ES	28ES	32ES	32ES	133
132	14AK	15BS	16CP	18DP	21CP	21CS	23CS	22DK	21DK	22DK	25DS	25DS	25DK	25DK	29EK	31EK	24EK	27EK	31EK	31EK	132
131	14AS	15BP	16BK	18CK	21CK	20CP	22CP	22DS	21DS	21DS	25DP	25DP	25DS	25DS	28DS	30ES	24DS	27ES	31ES	31ES	131
130	14AP	15AK	16BS	17CS	20CS	20CK	22CK	22DP	20DP	21DP	24DK	24DK	25DK	24DK	28DK	30EK	24DP	27EP	30EK	30EK	130
129	13AK	15AS	16BP	17CP	20CP	20CS	22CS	21DK	20DK	21DK	24DS	24DS	24DS	24DS	27DS	29DS	23DK	26EK	30ES	30ES	129
128	13AS	15AP	16BK	17CK	20CK	20CP	22CP	21DS	20CS	20DS	24DP	24DP	24DK	24DK	27DK	29DK	23DS	25DS	30EK	29EP	128
127	13AP	14AK	15BS	17CS	20BS	19CK	21CK	21DP	20CP	20DP	23DK	23DK	24DS	23DS	27DS	29DS	22DP	25DP	29ES	29EK	127
126	13AK	14AS	15BP	16CP	19BP	19CS	21CS	20CK	19CK	20DK	23DS	23DS	24DK	23DK	26DK	28DK	22DK	24DK	29EP	28ES	126
125	13AS	14AP	15BK	16CK	19BK	19BP	21CP	20CS	19CS	19DS	22DP	22DP	23DS	23DS	26DS	28DS	21DS	24DS	28EK	28EP	125
124	13	14AK	15BS	16CS	19BS	19BK	20CK	20CP	19CP	19DP	22DK	22DK	23DK	23DK	25DK	27DK	21DP	23DP	28ES	27EK	124
123	13	14AS	14AP	16CP	19BP	18BS	20CS	19CK	18CK	18DK	22DS	22DS	23CS	22DS	25DS	27DS	20DK	23DK	28EP	27DS	123
122	12	13AP	14AK	15CK	18BK	18BP	20CP	19CS	18CS	18CS	21CP	21DP	22CP	22DK	25DK	26DK	20DS	22DS	27EK	26DP	122
121	12	13AK	14AS	15BS	18BS	18BK	19CK	19CP	18CP	18CP	21CK	21DK	22CK	22DS	24DS	26DS	20DP	22DP	27DS	26DK	121
120	12	13AS	14AP	15BP	18AP	17BS	19CS	18CK	17CK	17CK	20CS	20DS	22CS	21DP	24DK	26DK	19DK	21DK	26DP	25DS	120
119	12	13	14AK	14BK	18AK	17BP	19BP	18CS	17CS	17CS	20CP	20DP	22CP	21DK	23DS	25DS	19DS	21DS	26DK	25DP	119
118	12	13	13AS	14BS	17AS	17BK	18BK	18CP	17CP	17CP	20CK	20DK	21CK	21DS	23DP	25DK	18DP	21DP	26DS	24DK	118
117	12	13	13AP	14BP	17AP	17BS	18BS	17CK	17CK	16CK	19CS	19DS	21CS	20DP	23DK	24DS	18DK	20DK	25DP	24DS	117
116	12	12	13AK	14BK	17AK	16AP	18BP	17CS	16CS	16CS	19CP	19DP	21CP	20DK	22DS	24DP	17DS	20DS	25DK	23DP	116
115	11	12	13AS	13BS	17AS	16AK	17BK	17CP	16CP	15CP	18CK	18CK	20CK	20CS	22DP	23DK	17CP	19DP	24DS	23DK	115
114	11	12	12AP	13BP	16AP	16AS	17BS	16CK	16BK	15CK	18CS	18CS	20CS	19CP	22DK	23DS	16CK	19DK	24DP	22DS	114
113	11	12	12AK	13BK	16AK	16AP	17BP	16BS	15BS	15CS	18CP	17CP	20CP	19CK	21CS	23DP	16CS	18DS	23DK	22DP	113
112	11	12	12AS	13AS	16AS	15AK	16BK	16BP	15BP	14CP	17CK	17CK	20CK	19CS	21CP	22DK	16CP	18DP	23DS	21DK	112
111	11	11	12AP	12AP	16AP	15AS	16BS	15BK	15BK	14CK	17CS	17CS	19CS	19CP	20CK	22DS	15CK	17CK	23DP	21DS	111
110	11	11	12AK	12AK	15AK	15AP	16AP	15BS	14BS	14CS	16CP	16CP	19CP	18CK	20CS	21DP	15CS	17CS	22DK	20DP	110
109	11	11	11	12AS	15	15AK	15AK	15BP	14BP	13CP	16CK	16CK	19CK	18CS	20CP	21CK	14CP	16CP	22DS	20DK	109
108	10	11	11	12AP	15	14AS	15AS	14BK	14BK	13CK	16CS	15CS	18CS	18CP	19CK	20CS	14CK	16CK	21DP	19DS	108
107	10	11	11	11AK	15	14AP	15AP	14BS	14BS	13BS	15CP	15CP	18CP	17CK	19CS	20CP	13CS	15CS	21DK	19DP	107
106	10	11	11	11AS	14	14AK	15AK	14BP	13BP	12BP	15CK	15CK	18BK	17CS	18CP	20CK	13CP	15CP	21DS	18DK	106
105	10	10	10	11AP	14	13AS	14AS	13BK	13BK	12BK	14BS	14CS	17BS	17CP	18CK	19CS	12CK	14CK	20DP	18DS	105
104	10	10	10	11AK	14	13	14AP	13BS	13BS	11BS	14BP	14CP	17BP	16CK	18CS	19CP	12CS	14CS	20DK	17CP	104
103	10	10	10	10AS	14	13	14AK	13BP	12AP	11BP	14BK	13CK	17BK	16CS	17CP	18CK	12CP	14CP	19DS	17CK	103
102	10	10	10	10AP	13	13	13AS	12AK	12AK	11BK	13BS	13CS	17BS	16CP	17CK	18CS	11BK	13CK	19DP	16CS	102
101	9	10	10	10AK	13	12	13AP	12AS	12AS	10BS	13BP	13CP	16BP	16CK	17CS	17CP	11BS	13CS	19CK	16CP	101
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99	9	9	9	9	13	12	12	11AK	11AK	10BK	12BS	12CS	16BS	15CP	16CK	17CS	10BK	12BK	18CP	15CS	99
98	9	9	9	9	12	12	12	11AS	11AS	9BS	12BP	11CP	15BP	15CK	15CS	16CP	9AS	11BS	17CK	14CP	98
97	9	9	9	9	12	11	12	11AP	11AP	9BP	11BK	11BK	15BK	14BS	15BP	16CK	9AP	11BP	17CS	14CK	97
96	9	9	8	9	12	11	11	10AK	10AK	8AK	11BS	11BS	15BS	14BP	15BK	15CS	8AK	10BK	17CP	13CS	96
95	8	9	8	8	12	11	11	10AS	10AS	8AS	10BP	10BP	15BP	14BK	14BS	15BP	8AS	10BS	16CK	13CP	95
94	8	8	8	8	11	11	11	10AP	10	8AP	10AK	10BK	14AK	13BS	14BP	14BK	8	9BP	16CS	12BK	94
93	8	8	8	8	11	10	10	9AK	9	7AK	10AS	9BS	14AS	13BP	13BK	14BS	7	9AK	15CP	12BS	93
92	8	8	8	7	11	10	10	9AS	9	7AS	9AP	9BP	14AP	13BK	13BS	14BP	7	8AS	15CK	11BP	92
91	8	8	7	7	11	10	10	9AP	9	7AP	9AK	9BK	13AK	12BS	13BP	13BK	6	8AP	15CS	11BK	91
90	8	8	7	7	10	9	9	8AK	8	6AK	8AS	8BS	13AS	12BP	12BK	13BS	6	7AK	14CP	10AS	90
89	8	8	7	7	10	9	9	8	8	6	8AP	8BP	13AP	12BK	12BS	12BP	5	7	14CK	10AP	89
88	7	7	7	6	10	9	9	8	8	5	8AK	7BK	13AK	12BS	11BP	12BK	5	0	13BS	9AK	88
87	7	7	6	6	10	9	8	7	8	5	7AS	7BS	12AS	11BP	11BK	11BS	4	0	13BP	9	87
86	7	7	6	6	9	8	8	7	7	5	7AP	7BP	12AP	11AK	11BS	11BP	4	0	13BK	0	86
85	7	7	6	6	9	8	8	7	7	4	6AK	6AK	12AK	11AS	10AP	11BK	0	0	12BS	0	85
84	7	7	6	5	9	8	8	6	7	4	6	6AS	11	10AP	10AK	10BS	0	0	12BP	0	84
83	7	6	6	5	9	8	7	6	6	4	6	5AP	11	10AK	10AS	10AP	0	0	11BK	0	83
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81	6	6	5	5	8	7	7	5	6	3	5	5AS	11	9AP	9AK	8AS	0	0	11AP	0	81
80	6	6	5	4	8	7	6	5	5	0	4	4AP	10	9AK	8AS	8AP	0	0	10AK	0	80
79	6	6	5	4	8	7	6	5	5	0	4	4AK	10	9	8AP	8AK	0	0	10AS	0	79
78	6	6	4	4	7	6	6	4	5	0	4	3AS	10	8	8AK	8AS	0	0	9AP	0	78
77	6	5	4	4	7	6	5	4	5	0	3	3	9	8	7AS	7AP	0	0	9	0	77
76	6	5	4	3	7	6	5	4	4	0	3	0	9	8	7AP	7AK	0	0	0	0	76
75	6	5	4	3	7	5	5	3	4	0	0	0	9	8	6AK	6AS	0	0	0	0	75
74	5	5	4	3	6	5	4	3	4	0	0	0	9	7	6	6AP	0	0	0	0	74
73	5	5	3	3	6	5	4	3	3	0	0	0	8	7	6	5AK	0	0	0	0	73
72	5	4	3	2	6	5	4	2	3	0	0	0	8	7	5	5	0	0	0	0	72
71	5	4	3	2	6	4	3	2	3	0	0	0	8	6	5	0	0	0	0	0	71
70	5	4	3	2	5	4	3	0	0	0	0	0	7	6	0	0	0	0	0	0	70
69	5	4	2	2	5	4	3	0	0	0	0	0	7	6	0	0	0	0	0	0	69
68	5	4	2	1	5	4	2	0	0	0	0	0	7	5	0	0	0	0	0	0	68
67	4	4	2	1	5	3	2	0	0	0	0	0	7	5	0	0	0	0	0	0	67
66	4	3	2	1	4	3	2	0	0	0	0	0	6	5	0	0	0	0	0	0	66
65	4	3	2	0	4	3	0	0	0	0	0	0	6	0	0	0	0	0	0	0	65
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62	4	3	1	0	3	2	0	0	0	0	0	0	5	0	0	0	0	0	0	0	62
61	4	2	1	0	3	2	0	0	0	0	0	0	5	0	0	0	0	0	0	0	61
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56	3	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56
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49	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
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47	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
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45	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
44	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
43	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
42	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	



	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
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149	8CP	10DP	12EP	14EP	20EP	20EP	23EP	23EP	20EP	22EP	26EP	26EP	20EP	20EP	25EP	28EP	22EP	25EP	28EP	30EP	149
148	8CP	10CP	12DP	14EP	20EP	20EP	23EP	23EP	20EP	22EP	26EP	26EP	20EP	20EP	25EP	28EP	22EP	25EP	28EP	30EP	148
147	8CP	10CP	12DP	14EP	20DP	20DP	23EP	23EP	20EP	22EP	26EP	26EP	20EP	20EP	25EP	28EP	22EP	25EP	28EP	30EP	147
146	8CP	10CP	12DP	14EP	20DP	20DP	23DP	23EP	20EP	21EP	25EP	25EP	20EP	20EP	25EP	27EP	21EP	24EP	27EP	29EP	146
145	8CP	10CP	12CP	14DP	20DP	20DP	22DP	22EP	19EP	21EP	25EP	25EP	20EP	20EP	24EP	27EP	21EP	24EP	27EP	29EP	145
144	8BP	10CP	12CP	14DP	19DP	19DP	22DP	22EP	19DP	21EP	25EP	25EP	19EP	19EP	24EP	27EP	21EP	24EP	27EP	28EP	144
143	8BP	10BP	12CP	13DP	19DP	19DP	22DP	22EP	19DP	21EP	24EP	24EP	19EP	19EP	24EP	26EP	21EP	24EP	27EP	28EP	143
142	8BP	10BP	12CP	13DP	19DP	19DP	22DP	22DP	19DP	20DP	24EP	24EP	19EP	19EP	24EP	26EP	20EP	23EP	26EP	28EP	142
141	8BP	10BP	11CP	13DP	19CP	19DP	21DP	21DP	19DP	20DP	24DP	24EP	19DP	19EP	23EP	26EP	20EP	23EP	26EP	28EP	141
140	8BP	10BP	11CP	13DP	19CP	19CP	21DP	21DP	18DP	20DP	24DP	23EP	19DP	19EP	23EP	26EP	20EP	23EP	26EP	27EP	140
139	8BP	10BP	11CP	13DP	18CP	18CP	21CP	21DP	18DP	20DP	23DP	23EP	19DP	19DP	23EP	25EP	20EP	22EP	26EP	27EP	139
138	8AP	9BP	11BP	13CP	18CP	18CP	21CP	21DP	18DP	19DP	23DP	23EP	18DP	18DP	23EP	25EP	19EP	22EP	25EP	27EP	138
137	8AP	9BP	11BP	13CP	18CP	18CP	20CP	20DP	18CP	19DP	23DP	22DP	18DP	18DP	22DP	25EP	19EP	22EP	25EP	26EP	137
136	8AP	9AP	11BP	12CP	18CP	18CP	20CP	20DP	18CP	19DP	22DP	22DP	18DP	18DP	22DP	24EP	19DP	22EP	25EP	26EP	136
135	8AP	9AP	11BP	12CP	18CP	18CP	20CP	20DP	17CP	19DP	22DP	22DP	18DP	18DP	22DP	24DP	19DP	21EP	25EP	26EP	135
134	7AP	9AP	11BP	12CP	18CP	17CP	20CP	20DP	17CP	18DP	22DP	22DP	18DP	18DP	22DP	24DP	18DP	21EP	24EP	25EP	134
133	7AP	9AP	11BP	12CP	17CP	17CP	20CP	19DP	17CP	18CP	22DP	21DP	18DP	17DP	21DP	23DP	18DP	21DP	24EP	25EP	133
132	7AP	9AP	10BP	12CP	17BP	17CP	19CP	19DP	17CP	18CP	21DP	21DP	17CP	17DP	21DP	23DP	18DP	20DP	24EP	25EP	132
131	7AS	9AP	10BP	12CP	17BP	17CP	19CP	19CP	17CP	18CP	21DP	21DP	17CP	17DP	21DP	23DP	17DP	20DP	24EP	24EP	131
130	7AP	9AP	10BP	12CP	17BP	17BP	19CP	19CP	16CP	17CP	21DP	20DP	17CP	17DP	21DP	23DP	17DP	20DP	23EP	24EP	130
129	7AK	9AP	10AP	11BP	17BP	17BP	19CP	18CP	16CP	17CP	20CP	20DP	17CP	17DP	20DP	22DP	17DP	20DP	23EP	24EP	129
128	7	9AP	10AP	11BP	16BP	16BP	18CP	18CP	16CP	17CP	20CP	20DP	17CP	17DP	20DP	22DP	17DP	19DP	23EP	23EP	128
127	7	8AP	10AP	11BP	16BP	16BP	18CP	18CP	16CP	17CP	20CP	19DP	17CP	16DP	20DP	22DP	16DP	19DP	23EP	23DP	127
126	7	8AS	10AP	11BP	16BP	16BP	18CP	18CP	15CP	16CP	20CP	19DP	16CP	16DP	20DP	21DP	16DP	19DP	22EP	23DP	126
125	7	8AP	10AP	11BP	16BP	16BP	18CP	17CP	15CP	16CP	19CP	19DP	16CP	16CP	19DP	21DP	16DP	18DP	22DP	22DP	125
124	7	8AK	9AP	11BP	16BP	15BP	17BP	17CP	15CP	16CP	19CP	18DP	16CP	16CP	19DP	21DP	16CS	18DP	22DP	22DP	124
123	7	8	9AP	11BP	16BP	15BP	17BP	17CP	15BP	15CP	19CP	18DP	16CP	16CP	19CP	20DP	15CP	18DP	21DP	22DP	123
122	7	8	9AP	10BP	15AP	15BP	17BP	17CP	15BP	15CP	18CP	18CP	16CP	15CP	19CP	20DP	15CS	18DS	21DP	21DP	122
121	7	8	9AP	10BP	15AP	15BP	17BP	16CP	14BP	15CP	18CP	18CP	16CP	15CP	18CP	20DP	15CP	17DP	21DP	21DP	121
120	7	8	9AP	10BP	15AP	15BP	17BP	16CP	14BP	15CP	18CP	17CP	15CP	15CP	18CP	20DP	15CS	17CS	21DP	21DP	120
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116	6	7	9AS	10AP	14AP	14AP	16BP	15BP	13BP	14BP	17CP	16CP	15BP	14CP	17CP	18CP	14CS	16CS	20DP	19DP	116
115	6	7	8AP	9AP	14AS	14AP	15BP	15BP	13BP	13BP	16CP	16CP	14BP	14CP	17CP	18CP	13CP	16CP	19DP	19DS	115
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112	6	7	8	9AP	14AP	13AP	15AP	14BP	13BP	13BP	15CP	15CP	14BS	14CP	16CP	17CP	12BS	15CS	19DS	18DP	112
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108	6	7	8	8AS	13AP	12AS	14AP	13BP	12AP	12BS	14BP	14CP	13BS	13BP	15BS	16CP	11BS	14BS	18CS	17CP	108
107	6	7	7	8AP	13AK	12AP	14AS	13BP	12AS	11BP	14BP	13CP	13BP	13BS	15BP	16BP	11BP	13BP	17CP	17CS	107
106	6	7	7	8AS	12	12AS	13AP	13BP	11AP	11BS	14BP	13CP	13BS	13BP	15BS	15BP	11BS	13BS	17CS	16CP	106
105	6	7	7	8AP	12	12AP	13AS	12BP	11AS	11BP	13BP	13CP	13BP	12BS	14BP	15BS	11AP	13BP	17CP	16CS	105
104	6	6	7	8AK	12	12AS	13AP	12BP	11AP	11BS	13BP	12CP	13BS	12BP	14BS	15BP	10AS	13BS	17CS	16CP	104
103	5	6	7	8	12	11AP	13AS	12AP	11AS	10AP	13BS	12BP	12AP	12BS	14BP	15BS	10AP	12BP	16CP	15CS	103
102	5	6	7	8	12	11AK	12AP	12AP	10AP	10AS	13BP	12BP	12AS	12BP	14BS	14BP	10AS	12AS	16CS	15BP	102
101	5	6	7	7	12	11	12AS	12AP	10AS	10AP	12BS	11BP	12AP	12BS	13BP	14BS	10AP	12AP	16CP	15BS	101
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97	5	6	6	7	11	10	11AK	11AS	9AS	9AP	11BS	10BS	11AP	11BS	12BP	13BS	9	11AP	15CP	13BS	97
96	5	6	6	7	11	10	11	10AP	9AP	8AS	11AP	10BP	11AS	11AP	12BS	12BP	8	10AS	14BS	13BP	96
95	5	6	6	7	10	10	11	10AS	9AK	8AP	11AS	10BS	11AP	11AS	12BP	12BS	8	10AP	14BP	13AS	95
94	5	6	6	6	10	10	10	10AP	9	8AS	10AP	9BP	11AS	10AP	12AS	12BP	8	10AK	14BS	12AP	94
93	5	5	6	6	10	10	10	10AS	9	8AP	10AS	9BS	11AP	10AS	11AP	12BS	7	9	14BP	12AS	93
92	5	5	6	6	10	9	10	9AP	8	7AS	10AP	9BP	11AS	10AP	11AS	11BP	7	9	13BS	12AP	92
91	5	5	6	6	10	9	10	9AS	8	7AP	9AS	8BS	10AS	10AS	11AP	11AS	7	9	13BP	11AS	91
90	5	5	6	6	9	9	10	9AP	8	7AK	9AP	8BP	10	10AP	11AS	11AP	7	9	13BS	11AP	90
89	5	5	5	6	9	9	9	9AS	8	7	9AS	8BS	10	9AS	10AP	10AS	6	8	13BP	11AK	89
88	4	5	5	6	9	9	9	8AP	8	6	8AP	7BP	10	9AP	10AS	10AP	6	8	12BS	10	88
87	4	5	5	5	9	8	9	8AK	7	6	8AS	7BS	10	9AS	10AP	10AS	6	8	12BP	10	87
86	4	5	5	5	9	8	9	8	7	6	8AP	7AP	10	9AP	10AS	9AP	6	7	12AS	10	86
85	4	5	5	5	9	8	8	8	7	6	8AK	6AS	9	9	9AP	9AS	5	7	12AP	9	85
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81	4	4	4	5	8	7	7	7	6	5	6	5AS	9	8	8AP	8AS	4	6	11AP	8	81
80	4	4	4	4	8	7	7	6	6	4	6	5AP	8	8	8	8AP	4	6	10AK	8	80
79	4	4	4	4	7	7	7	6	6	4	6	5AS	8	8	8	7AS	4	0	10AK	0	79
78	4	4	4	4	7	7	7	6	5	4	6	4AP	8	7	8	7AP	4	0	10	0	78
77	4	4	4	4	7	6	7	6	5	4	5	4AS	8	7	7	7AS	3	0	10	0	77
76	4	4	4	4	7	6	6	5	5	3	5	4AP	8	7	7	6AP	3	0	9	0	76
75	4	4	4	4	7	6	6	5	5	3	5	3AK	8	7	7	6	3	0	9	0	75
74	4	4	4	4	7	6	6	5	5	3	4	3	7	7	7	6	0	0	9	0	74
73	3	4	4	3	6	6	6	5	4	3	4	3	7	7	6	6	0	0	9	0	73
72	3	4	3	3	6	5	5	4	4	2	4	2	7	6	6	5	0	0	8	0	72
71	3	4	3	3	6	5	5	4	4	2	4	2	7	6	6	5	0	0	8	0	71
70	3	3	3	3	6	5	5	4	4	2	3	2	7	6	6	5	0	0	8	0	70
69	3	3	3	3	6	5	5	4	4	0	3	0	7	6	5	4	0	0	0	0	69
68	3	3	3	3	5	5	4	3	3	0	3	0	6	6	5	4	0	0	0	0	68
67	3	3	3	3	5	5	4	3	3	0	2	0	6	5	5	4	0	0	0	0	67
66	3	3	3	2	5	4	4	3	3	0	2	0	6	5	5	0	0	0	0	0	66
65	3	3	3	2	5	4	4	3	3	0	2	0	6	5	4	0	0	0	0	0	65
64	3	3	2	2	5	4	4	2	3	0	0	0	6	5	4	0	0	0	0	0	64
63	3	3	2	2	5	4	3	2	2	0	0	0	6	5	4	0	0	0	0	0	63
62	3	3	2	2	4	4	3	2	2	0	0	0	5	5	4	0	0	0	0	0	62
61	3	3	2	2	4	3	3	2	2	0	0	0	5	4	0	0	0	0	0	0	61
60	3	3	2	2	4	3	3	1	2	0	0	0	5	4	0	0	0	0	0	0	60
59	3	2	2	1	4	3	2	1	0	0	0	0	5	4	0	0	0	0	0	0	59
58	3	2	2	1	4	3	2	1	0	0	0	0	5	4	0	0	0	0	0	0	58
57	2	2	2	1	3	3	2	1	0	0	0	0	5	4	0	0	0	0	0	0	57
56	2	2	2	1	3	2	2	0	0	0	0	0	4	0	0	0	0	0	0	0	56
55	2	2	1	1	3	2	1	0	0	0	0	0	4	0	0	0	0	0	0	0	55
54	2	2	1	1	3	2	1	0	0	0	0	0	4	0	0	0	0	0	0	0	54
53	2	2	1	1	3	2	1	0	0	0	0	0	4	0	0	0	0	0	0	0	53
52	2	2	1	0	3	2	1	0	0	0	0	0	4	0	0	0	0	0	0	0	52
51	2	2	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51
50	2	2	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
49	2	2	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
48	2	1	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
47	2	1	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
46	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
45	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
44	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
43	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
42	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	

8.7.4 SPEAR ATTACK TABLE

Weapon Type:
Pole Arm

Length:
5-10 feet

Weight:
3-8 pounds

Fumble Range:
01-05 UM

Range (OB Mod):
1'-10' (–10)
11'-25' (–20)
26'-50' (–30)

11.1.1 BEAK/PINCHER ATTACK TABLE





	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
01-02	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	01-02
03-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	03-30
31-33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31-33
34-36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34-36
37-39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37-39
40-42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40-42
43-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43-45
46-48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46-48
49-51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49-51
52-54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	52-54
55-57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	55-57
58-60	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	2	58-60
61-63	0	0	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2	3AT	61-63
64-66	0	0	1	2	0	0	1	1	0	0	0	2	0	0	0	1	0	0	3AT	4BT	64-66
67-69	0	0	2	3	0	1	1	2	0	0	1	3	0	0	0	1	0	1	4BT	5CT	67-69
70-72	0	0	2	3	1	1	2	3	0	0	1	4	0	0	0	2	0	1	5CT	6DT	70-72
73-75	0	0	3	4	1	2	3	4	0	0	2	5	0	0	1	3AT	0	2	6DT	7AS	73-75
76-78	0	1	4	5	2	2	3	4	0	1	3	5	0	0	2	4BT	1	3	7AS	8AS	76-78
79-81	0	1	4	5	2	3	4	5	0	1	4	6	0	1	3AT	5CT	1	4AT	7AS	9AS	79-81
82-84	0	2	5	6	3	3	5	6AT	1	2	4	7AT	1	1	4BT	6DT	2	5BT	8AS	10AS	82-84
85-87	1	2	6	7AT	3	4	6	7BT	1	2	5	8BT	1	2AT	5CT	7AS	3	6CT	9AS	10AS	85-87
88-90	1	3	6	8BT	4	5	6	7CT	2	3	6	9CT	2AT	3BT	6DT	8AS	4AT	6DT	10AS	11AS	88-90
91-93	2	3	7	8CT	5	5	7	8DT	2	4	7AT	9DT	3BT	4CT	7AS	9AS	5BT	7AS	11AS	12BS	91-93
94-96	2	4	8AT	9DT	5	6	8AT	9AS	3	4	8BT	10AS	4CT	5DT	8AS	10AS	6CT	8AS	12BS	13BS	94-96
97-99	3	5	8BT	10AS	6AT	6AT	8BT	10AS	3	5AT	8CT	11AS	4DT	5AK	9AK	11AS	6DT	9AS	13BS	14BS	97-99
100-102	3	5AT	9CT	10AS	6BT	7BT	9CT	10AS	4AT	6BT	9DT	12AS	5AS	6AS	10AS	12BS	7AS	10AS	14BS	15BS	100-102
103-105	4AT	6BT	10DT	11AS	7CT	8CT	10DT	11AS	5BT	6CT	10AS	13AS	6AK	7AK	11AK	13BS	8AS	11AS	14BK	16BK	103-105
	Maximum Results for Small Attacks																				
106-108	5BT	6CT	10AS	12AS	7DT	8DT	11AS	12AS	5CT	7DT	11AS	13AS	7AS	8AS	12BS	14BS	9AS	12BS	15CS	17CS	106-108
109-111	5CT	7DT	11AK	12AS	8AK	9AK	11AK	13BS	6DT	7AK	11AK	14BS	7AK	9AK	13BK	15BK	10AS	12BS	16CK	18CK	109-111
112-114	6DT	8AS	12AS	13BS	9AS	9AS	12AS	13BS	6AK	8AS	12AS	15BS	8BS	10BS	14BS	16CS	11AS	13BS	17CK	19CS	112-114
115-117	6AK	8AK	12AK	14BK	9AK	10AK	13AK	14BK	7AK	9AK	13BK	16BK	9BK	10BK	15BK	17CK	11AK	14BK	18CK	20DK	115-117
118-120	7AK	9AS	13AS	15BS	10AS	11AS	13BS	15CS	8AS	9AS	14BS	17CS	10BS	11BS	16CS	18CS	12BS	15CS	19DS	20DS	118-120
	Maximum Results for Medium Attacks																				
121-123	7AK	9AK	14BK	15CK	10AK	11AK	14BK	16CK	8AK	10BK	15BK	17CK	11BK	12BK	17CK	19CK	13BK	16CK	20DK	21DK	121-123
124-126	8AK	10BS	14BS	16CS	11BS	12BS	15BS	16CS	9AS	11BS	15CS	18CS	11CS	13CS	18CS	20CS	14BS	17CS	21DS	22DS	124-126
127-129	9AK	10BK	15BK	17CK	11BK	12BK	16CK	17CK	9BK	11BK	16CK	19CK	12CK	14CK	19CK	21DK	15CK	18CK	21DK	23DK	127-129
130-132	9BS	11BS	16CS	17CS	12BS	13BS	16CS	18DS	10BS	12CS	17CS	20DS	13CS	15CS	20DS	22DS	16CS	18DS	22ES	24ES	130-132
133-135	10BK	12CK	16CK	18DK	13CK	14CK	17CK	19DK	11BK	12CK	18DK	21DK	14CK	15CK	21DK	23DK	16CK	19DK	23EK	25EK	133-135
	Maximum Results for Large Attacks																				
136-138	10BS	12CS	17CS	19DS	13CS	14CS	18DS	19DS	11CS	13CS	18DS	21DS	14DS	16DS	22DS	24ES	17DS	20DS	24ES	26ES	136-138
139-141	11CK	13CK	18DK	19DK	14CK	15CK	18DK	20EK	12CK	14DK	19DK	22EK	15DK	17DK	23EK	25EK	18DK	21EK	25EK	27EK	139-141
142-144	11CS	13DS	18DS	20ES	14DS	15DS	19DS	21ES	12DS	14DS	20ES	23ES	16ES	18ES	24ES	26ES	19ES	22ES	26ES	28ES	142-144
145-147	12DK	14DK	19EK	21EK	15DK	16DK	20EK	22EK	13DK	15EK	21EK	24EK	17EK	19EK	25EK	27EK	20EK	23EK	27EK	29EK	145-147
148-150	13ES	15ES	20ES	22FS	16ES	17ES	21ES	23FS	13ES	16ES	22ES	25FS	18ES	20ES	26ES	28FS	21ES	24ES	28FS	30FS	148-150
	Maximum Results for Huge Attacks																				

Note: *An F-severity critical result indicates an E-critical roll on the Slash Critical Strike Table and a C-critical roll on the Krush Critical Strike Table.*

Note: *Animals attempting to hold onto a target (on this table) may be given an additional attack on the Grapple Attack Table if they obtain a critical strike result on this table.*

Critical Strikes: **P** = *Puncture*, **S** = *Slash*, **K** = *Krush*, **G** = *Grapple*, **U** = *Unbalance*, **T** = *Tiny*

11.1.2 BITE ATTACK TABLE







	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
01-02	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	01-02
03-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	03-30
31-33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31-33
34-36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34-36
37-39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37-39
40-42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40-42
43-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43-45
46-48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46-48
49-51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	49-51
52-54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	52-54
55-57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3AT	55-57
58-60	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	3	5AT	58-60
61-63	0	0	0	1	0	0	0	0	0	0	0	2	0	0	1	2	0	0	4AT	6BT	61-63
64-66	0	0	0	2	0	0	0	1	0	0	0	3	0	0	2	3	0	1	6BT	7CT	64-66
67-69	0	0	1	3	0	0	1	2	0	0	0	4	1	1	3	5AT	1	2	7CT	9DT	67-69
70-72	0	0	1	4	0	0	2	3	0	0	0	5	2	2	4AT	6AT	2	3	8DT	10ET	70-72
73-75	0	0	2	5	0	0	3	4	0	0	1	7	3AT	3	6AT	7BT	3	4	10ET	11AS	73-75
76-78	0	0	3	6	0	1	4	5	0	0	2	8	4BT	4AT	7BT	9CT	4	5AT	11AP	13AP	76-78
79-81	0	0	4	7	1	1	5	6	0	1	3	9AT	5CT	5BT	8CT	10DT	5	7BT	12AS	14AS	79-81
82-84	0	1	5	8	1	2	6	7AT	0	2	4AT	10BT	6DT	6CT	9DT	11ET	6	8CT	14AP	15AP	82-84
85-87	0	2	6	9AT	2	3	7AT	9AT	0	3	5BT	11CT	7ET	7DT	11ET	13AS	7AT	9DT	15AS	17BS	85-87
88-90	0	3	7AT	10BT	3AT	4AT	8AT	10AT	1	4	7CT	13DT	8AP	8ET	12AS	14AP	8BT	10ET	16AP	18BP	88-90
91-93	0	4	8BT	11CT	4AT	5AT	9BT	11BT	1	5AT	8DT	14ET	9AP	9AP	13AP	16AS	9CT	11AP	18BS	19BS	91-93
94-96	1	5AT	9CT	12DT	5BT	6AT	10CT	12CT	2AT	6BT	9ET	15AP	10AP	10AP	15AS	17AP	10DT	13AS	19BP	21BP	94-96
97-99	1AT	6AT	9DT	13ET	6CT	7BT	11DT	13DT	3AT	7CT	10AP	16AS	11AP	11AP	16AP	18BS	11ET	14AP	20BS	22BS	97-99
100-102	2AT	7BT	10ET	14AP	7DT	8CT	12ET	14ET	4AT	8DT	12AS	17AP	12AP	12AP	17BS	20BP	12AP	15BS	22BP	23BP	100-102
103-105	3BT	8CT	11AP	15AS	8ET	8DT	13AP	15AP	5BT	9ET	13AP	19AS	13BP	13BP	18BP	21BS	13AS	16BP	23BS	25BS	103-105
	Maximum Results for Small Attacks																				
106-108	4CT	9DT	12AS	16AP	9AP	9ET	14AS	17BS	6CT	10AP	14AS	20BP	14BP	14BP	20BS	22CP	14AP	18BS	24BP	26CP	106-108
109-111	5DT	10ET	13AP	17AS	10AP	10AP	15AP	18BP	7DT	11AP	15BP	21BS	16BP	16BP	21BP	24CS	15AS	19BP	25CS	27CS	109-111
112-114	6ET	11AP	14BS	18BP	11AP	11AP	16BS	19BS	8ET	12AP	17BS	22BP	17BS	17BS	22CS	25CP	16BP	20CS	27CP	29DP	112-114
115-117	6AP	12AP	15BP	19BS	11AP	12AP	17BP	20CP	9AP	13AP	18BP	23CS	18CP	18CP	23CP	26CS	17BS	21CP	28DS	30DS	115-117
118-120	7AP	13AP	16BS	20BP	12BS	13BS	18BS	21CS	10AP	14BP	19CS	25CP	19CS	19CS	25CS	28DP	18BP	22CS	29DP	31DP	118-120
	Maximum Results for Medium Attacks																				
121-123	8AP	14BP	17BP	21CS	13BP	14BP	19BP	22CP	11AP	15BS	20CP	26CS	20CP	20CP	26CP	29DS	19CS	24CP	31DS	33DS	121-123
124-126	9AP	15BS	17CS	22CP	14BS	15BS	20CS	23CS	12BP	16BP	22CS	27CP	21CS	21CS	27DS	31DP	20CP	25DS	32DP	34EP	124-126
127-129	10BP	16BP	18CP	23CS	15BP	15BP	21CP	25DP	13BP	17BS	23DP	28DS	22DP	22CP	29DP	32DS	21CS	26DP	33ES	35ES	127-129
130-132	11BS	17BS	19CS	24DP	16CS	16CS	22CS	26DS	14BS	18CP	24DS	29DP	23DS	23DS	30DS	33EP	22DP	27DS	35EP	37EP	130-132
133-135	11BP	18CP	20CP	25DS	17CP	17CP	23CP	27DP	15BP	19CS	25DP	31DS	24DP	24DP	31DP	35ES	23DS	28DP	36ES	38ES	133-135
	Maximum Results for Large Attacks																				
136-138	12BS	19CS	21CS	26DP	18CS	18CS	24CS	28DS	16CS	20CP	27DS	32DP	25DS	25DS	32ES	36EP	24DP	30ES	37EP	39EP	136-138
139-141	13CP	20CP	22DP	27ES	19CP	19CP	25DP	29EP	17CP	21CS	28EP	33ES	26EP	26EP	34EP	37ES	25ES	31EP	39ES	41ES	139-141
142-144	14CK	21DK	23DK	28EP	20DK	20DK	26DK	30EK	18CK	22DP	29EK	34EP	27EK	27EK	35EK	39EP	26EP	32EK	40EP	42EP	142-144
145-147	15DS	22DS	24ES	29ES	21DS	21DS	27ES	31ES	19DS	23DS	30ES	35ES	28ES	28ES	36ES	40ES	27ES	33ES	41ES	43ES	145-147
148-150	16EP	23EP	25EP	30FP	22EP	22EP	28EP	33FP	20EP	25EP	32EP	37FP	29EP	29EP	38EP	42FP	29EP	35EP	43FP	45FP	148-150
	Maximum Results for Huge Attacks																				

NOTE: *An F-severity critical indicates an E-critical roll on the Puncture Critical Strike Table and a C-critical roll on the Slash Critical Strike Table.*

NOTE: *Animals attempting to hold onto a target (on this table) may be given an additional attack on the Grapple Attack Table if they obtain a critical result on this table.*

CRITICAL STRIKES: **P** = *Puncture*, **S** = *Slash*, **K** = *Krush*, **G** = *Grapple*, **U** = *Unbalance*, **T** = *Tiny*

11.1.3 CLAW/TALON ATTACK TABLE







	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
01-02	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	01-02
03-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	03-30
31-33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31-33
34-36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34-36
37-39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	37-39
40-42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	40-42
43-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	43-45
46-48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	46-48
49-51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	3	49-51
52-54	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	3	4AT	52-54
55-57	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	2	0	1	4AT	4AT	55-57
58-60	0	0	0	1	0	0	0	1	0	0	0	2	0	0	1	3	0	2	4BT	5BT	58-60
61-63	0	0	1	2	0	0	1	1	0	0	1	2	0	0	1	3	1	2	5CT	6CT	61-63
64-66	0	0	1	2	0	0	1	2	0	0	1	3	0	0	2	4	1	3	6DT	6DT	64-66
67-69	0	0	2	3	0	1	2	2	0	0	2	3	1	1	3	5AT	2	4	6ET	7ET	67-69
70-72	0	0	2	3	1	1	2	3	0	1	2	4	1	1	3	5AT	2	4	7AS	8AS	70-72
73-75	0	1	3	4	1	1	3	4	0	1	3	5	2	2	4AT	6BT	3	5AT	8AS	8AS	73-75
76-78	0	1	3	4	2	2	3	4	1	2	3	5AT	2	2	5AT	7CT	4	6BT	8AS	9AS	76-78
79-81	0	1	4	5	2	2	4	5AT	1	2	4	6BT	3	3AT	5BT	7DT	4	6CT	9AS	10AS	79-81
82-84	0	2	4	5AT	3	3	4	5AT	1	3	5	6CT	3AT	3BT	6CT	8ET	5	7DT	9AS	10AS	82-84
85-87	1	2	5	6BT	3	3	5	6AT	2	3	5AT	7DT	4BT	4CT	7DT	9AS	5AT	7ET	10BS	11AS	85-87
88-90	1	3	5	7CT	4	4	5AT	7BT	2	4	6BT	8ET	4CT	4DT	7ET	9AS	6BT	8AS	11BS	12BS	88-90
91-93	1	3	6AT	7DT	4	4	6AT	7CT	3	4	6CT	8AS	5DT	5ET	8AS	10AS	7CT	9AS	11BS	12BS	91-93
94-96	2	4AT	6BT	8ET	5	5	7BT	8DT	3	5AT	7DT	9AS	5ET	5AS	9AS	11AS	7DT	9AS	12BS	13BS	94-96
97-99	2	4AT	7CT	8AS	5AT	5AT	7CT	8ET	4	5BT	8ET	9AS	6AS	6AS	9AS	11BS	8ET	10AS	13BS	13BS	97-99
100-102	13	5BT	7DT	9AS	6AT	6AT	8DT	9AS	4AT	6CT	8AS	10BS	6AS	6AS	10AS	12BS	9AS	11BS	13BS	14BS	100-102
103-105	3AT	5CT	8ET	9AS	6BT	6AT	8ET	10BS	5AT	6DT	9AP	11BS	7AS	7BS	11BS	13BS	9AS	11BS	14BS	15BP	103-105
	Maximum Results for Small Attacks																				
106-108	4AT	6DT	8AP	10AS	7CT	7BT	9AS	10BS	5AT	7ET	9AS	11BS	7AS	7BS	11BS	13CS	10AS	12BS	15BP	15CS	106-108
109-111	4BT	6ET	9AS	10AS	7DT	7CT	9AP	11BS	6BT	8AP	10AP	12CS	8AS	8BS	12BS	14CS	10AS	12BS	15CS	16CP	109-111
112-114	4CT	7AS	9AP	11BS	8ET	8DT	10BS	11CP	6CT	8AS	10AS	12CS	8BS	8BS	13CS	15CP	11BS	13CS	16CP	17DS	112-114
115-117	5DT	7AP	10BS	11BS	8AP	8ET	10BP	12CS	6DT	9AP	11BP	13CP	9BS	9CS	13CP	15CS	12BS	14CP	16DS	17DP	115-117
118-120	5ET	8BS	10BP	12BS	9AP	9AP	11BS	13CP	7ET	9BS	12BS	14CS	9BS	9CP	14CS	16DP	12BS	14CS	17DP	18DS	118-120
	Maximum Results for Medium Attacks																				
121-123	6AP	8BP	11BS	13CP	9AP	9BP	12BP	13CS	7AP	10BP	12BP	14DP	10CP	10CS	15CP	17DS	13CP	15CP	18DS	19EP	121-123
124-126	6AP	9BS	11BP	13CS	10AP	10BP	12CS	14DP	8BP	10BS	13CS	15DS	10CS	10CP	15DS	17DP	14CS	16DS	18EP	19ES	124-126
127-129	7BP	9BP	12CS	14CP	10BP	10BP	13CP	14DS	8BP	11BP	13CP	15DP	11CP	11CS	16DP	18DS	14CP	16DP	19ES	20EP	127-129
130-132	7BS	10CS	12CP	14DS	11BP	11BS	13CS	15DP	9BS	11CS	14CS	16DS	11CS	11DP	17DS	19EP	15DS	17DS	20EP	21ES	130-132
133-135	7BP	10CP	13CS	15DP	11BP	11CP	14CP	16DK	9BP	12CP	15DP	17DP	12DP	12DS	17DP	19ES	15DP	17DP	20ES	21EP	133-135
	Maximum Results for Large Attacks																				
136-138	8BS	11CS	13CP	15DS	12BS	12CS	14CS	16ES	10CS	12CS	15DS	17ES	12DS	12DP	18ES	20EP	16DS	18ES	21EP	22ES	136-138
139-141	8CP	11CP	14CS	16EP	12CP	12CP	15DP	17EP	10CP	13CP	16DP	18EP	13DP	13ES	19EP	21ES	17EP	19EP	22ES	23EP	139-141
142-144	9CK	12DK	14DP	16EK	13CK	13CK	15DK	17EK	11CK	13DK	16EK	18EK	13EK	13EP	19EK	21EP	17EK	19EK	22EP	23EK	142-144
145-147	9DS	12DS	15DS	17ES	13CS	13DS	16ES	18ES	11DS	14DS	17ES	19ES	14ES	14ES	20ES	22ES	18ES	20ES	23ES	24ES	145-147
148-150	10EP	13EP	15EP	18FP	14DP	14DP	17EP	19FP	12EP	15EP	18EP	20FP	15EP	15EP	21EP	23FP	19EP	21EP	24FP	24FP	148-150
	Maximum Results for Huge Attacks																				

NOTE: *An F-severity critical indicates an E-critical roll on the Puncture Critical Strike Table and a C-critical roll on the Slash Critical Strike Table.*

CRITICAL STRIKES: **P** = *Puncture*, **S** = *Slash*, **K** = *Krush*, **G** = *Grapple*, **U** = *Unbalance*, **T** = *Tiny*

11.1.4 GRAPPLE/GRASP/ENVELOP/SWALLOW ATTACK TABLE





	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
01-02	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	01-02
03-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	03-30
31-33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31-33
34-36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34-36
37-39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37-39
40-42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40-42
43-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43-45
46-48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46-48
49-51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49-51
52-54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52-54
55-57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55-57
58-60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58-60
61-63	1AG	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61-63
64-66	1AG	1	0	0	1AG	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	64-66
67-69	1AG	1AG	1	1	1AG	1AG	0	0	1AG	1	0	0	1	1	0	0	0	0	0	0	67-69
70-72	1AG	1AG	1	1	1AG	1AG	1	1	1AG	1	0	0	1AG	1	0	0	0	0	0	0	70-72
73-75	1AG	1AG	1AG	1	2AG	1AG	1	1	1AG	1AG	1	1	2AG	1AG	1	0	0	0	0	0	73-75
76-78	1AG	1AG	2AG	2AG	2AG	2AG	1AG	1	1AG	1AG	1	1	2AG	2AG	1	0	0	0	1	0	76-78
79-81	1AG	2AG	2AG	2AG	2AG	2AG	2AG	2AG	1AG	2AG	1AG	2	2AG	2AG	1	1	0	0	1	0	79-81
82-84	1AG	2AG	2AG	3AG	2AG	2AG	2AG	2AG	2AG	2AG	2AG	2AG	3AG	3AG	2	1	0	0	2AG	1	82-84
85-87	1AG	2AG	3AG	3AG	3AG	3AG	2AG	3AG	2AG	2AG	2AG	3AG	3AG	3AG	2AG	2	0	0	2AG	1	85-87
88-90	1AG	2AG	3AG	3AG	3AG	3AG	3AG	3AG	2AG	2AG	3AG	3AG	3AG	3AG	3AG	2	1AG	1	3AG	2	88-90
91-93	2BG	2AG	3AG	4AG	3AG	3AG	3AG	4AG	2AG	3AG	3AG	4AG	4AG	4AG	3AG	3	1AG	1	3AG	2	91-93
94-96	2BG	3AG	4AG	4AG	4AG	4AG	4AG	4AG	2AG	3AG	4AG	4AG	4AG	4AG	4AG	4	1AG	2AG	4AG	3	94-96
97-99	2BG	3AG	4AG	5AG	4AG	4AG	4AG	5AG	2AG	3AG	4AG	5AG	4AG	5AG	4AG	4AG	2AG	2AG	5AG	4	97-99
100-102	2BG	3AG	4AG	5AG	4AG	4AG	4AG	5AG	3AG	3AG	4AG	5AG	5AG	5AG	5AG	5AG	2AG	3AG	4AG	4	100-102
103-105	2BG	3BG	5BG	5BG	4BG	5BG	5BG	6BG	3BG	4BG	5BG	6AG	5BG	5BG	5AG	5AG	3AG	4AG	6AG	5AG	103-105
	Maximum Results for Small Attacks																				
106-108	2CG	4BG	5BG	6BG	5BG	5BG	5BG	6BG	3BG	4BG	5BG	6AG	6BG	6BG	6AG	6AG	3AG	4AG	6AG	6AG	106-108
109-111	2CG	4BG	5BG	6BG	5BG	5BG	6BG	7BG	3BG	4BG	6BG	7AG	6BG	6BG	6AG	7AG	4AG	5AG	7AG	6AG	109-111
112-114	2CG	4BG	6BG	7BG	5BG	6BG	6BG	7BG	3BG	4BG	6BG	7AG	6BG	7BG	7AG	7AG	4AG	5AG	8AG	7AG	112-114
115-117	2CG	4CG	6CG	7CG	5CG	6CG	6CG	7CG	4CG	5CG	7CG	8BG	7CG	7CG	7BG	8BG	5BG	6AG	8BG	8AG	115-117
118-120	2CG	4CG	6CG	7CG	6CG	6CG	7CG	8CG	4CG	5CG	7CG	8BG	7CG	7CG	8BG	8BG	5BG	7BG	9BG	8AG	118-120
	Maximum Results for Medium Attacks																				
121-123	3DG	5CG	7CG	8CG	6CG	7CG	7CG	8CG	4CG	5CG	8CG	9BG	7CG	8CG	8BG	9BG	6BG	7BG	9BG	9AG	121-123
124-126	3DG	5CG	7CG	8CG	6CG	7CG	7CG	9CG	4CG	5CG	8CG	9CG	8CG	8CG	9CG	10CG	6CG	8CG	10CG	9AG	124-126
127-129	3DG	5DG	7DG	9DG	7DG	7DG	8DG	9DG	4DG	6DG	8DG	10CG	8DG	9DG	9CG	10CG	7CG	8CG	10CG	10BG	127-129
130-132	3DG	5DG	8DG	9DG	7DG	8DG	8DG	10DG	4DG	6DG	9DG	10CG	8DG	9DG	10CG	11CG	7CG	9CG	11CG	11BG	130-132
133-135	3DG	5DG	8DG	9DG	7DG	8DG	9DG	10DG	5DG	6DG	9DG	11DG	9DG	9DG	10DG	11DG	8DG	10DG	12DG	11CG	133-135
	Maximum Results for Large Attacks																				
136-138	3EG	6DG	8DG	10DG	7DG	8DG	9DG	11DG	5DG	6DG	10DG	11DG	9DG	10DG	11DG	11DG	8DG	10DG	12DG	12CG	136-138
139-141	3EG	6EG	9EG	10EG	8EG	9EG	9EG	11EG	5EG	7EG	10EG	12DG	9EG	10EG	11DG	13DG	9DG	11DG	13DG	13DG	139-141
142-144	3EG	6EG	9EG	11EG	8EG	9EG	10EG	12EG	5EG	7EG	11EG	12EG	10EG	11EG	12EG	13EG	9EG	11EG	13EG	13DG	142-144
145-147	3EG	6EG	9EG	11EG	8EG	9EG	10EG	12EG	5EG	7EG	11EG	13EG	10EG	11EG	12EG	14EG	10EG	12EG	14EG	14EG	145-147
148-150	4EG	7EG	10EG	12FG	9EG	10EG	11EG	13FG	6EG	8EG	12EG	14FG	11EG	12EG	13EG	14FG	11EG	13EG	15FG	15FG	148-150
	Maximum Results for Huge Attacks																				

NOTE: *An F-severity critical indicates an E-critical roll and a C-critical roll (both Grapple criticals).*

NOTE: *For each consecutive round that a creature obtains a critical strike on the same target (on this table), the creature obtains an additional +10 against that target.*

CRITICAL STRIKES: **P** = *Puncture*, **S** = *Slash*, **K** = *Krush*, **G** = *Grapple*, **U** = *Unbalance*, **T** = *Tiny*

11.1.5 HORN/TUSK ATTACK TABLE







	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
01-02	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	01-02
03-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	03-30
31-33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31-33
34-36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34-36
37-39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37-39
40-42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40-42
43-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43-45
46-48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46-48
49-51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	49-51
52-54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	52-54
55-57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	3AT	55-57
58-60	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	1	3	4BT	58-60
61-63	0	0	0	1	0	0	0	0	0	0	0	1	0	0	1	3	0	2	4AT	5CT	61-63
64-66	0	0	0	2	0	0	0	1	0	0	0	2	0	0	2	4AT	0	3	5BT	6DT	64-66
67-69	0	0	1	3	0	0	1	1	0	0	1	3	0	0	3	5BT	1	4	6CT	7AP	67-69
70-72	0	0	1	4	0	0	1	2	0	0	1	4	1	0	4AT	6CT	2	5	7DT	8AP	70-72
73-75	0	0	2	5	1	1	2	3	0	0	2	5AT	1	1	5BT	7DT	3	6AT	8AP	9AP	73-75
76-78	0	0	2	6	1	1	3	4	0	1	3	6BT	2	1	6CT	8AP	4	7BT	9AP	10AP	76-78
79-81	0	1	4	6	2	2	4	5AT	0	1	4	7CT	3	2AT	7DT	9AP	5AT	8CT	10AP	11AP	79-81
82-84	0	1	5	7	3	3	5	6BT	1	2	5AT	8DT	4AT	3BT	8AP	10AP	6BT	9DT	11AP	12AP	82-84
85-87	0	2	5	8	4	4	6AT	7CT	1	3AT	6BT	9AP	5BT	4CT	9AP	11AP	7CT	10AP	12AP	13AP	85-87
88-90	1	3	6AT	9AT	5	5	6BT	8DT	2	4BT	7CT	10AP	5CT	5DT	10AP	12AP	8DT	11AP	13AP	14AP	88-90
91-93	1	4AT	7BT	10BT	6	6	7CT	9AP	3AT	5CT	8DT	11AP	6DT	6AP	11AP	13AP	9AP	12AP	14AP	15BP	91-93
94-96	2	5BT	8CT	11CT	6AT	6AT	8DT	10AP	4BT	6DT	9AP	12AP	7AP	7AP	12AP	14AP	10AP	13AP	15BP	16BP	94-96
97-99	3	5CT	9DT	11DT	7BT	7BT	9AP	11AP	5CT	7AP	9AP	13AP	8AP	8AP	13AP	15BP	11AP	14AP	16BP	17BP	97-99
100-102	4AT	6DT	9AP	12AP	8CT	8CT	10AP	12AP	6DT	8AP	10AP	14BP	9AP	9BP	14BP	16BP	12AP	15AP	17BP	18BP	100-102
103-105	5BT	7AU	10AP	13AP	9DT	9DT	11AP	13BP	7AP	9AP	11AP	15BP	9AP	10AP	15BP	17BP	13AP	16AP	18BP	19BP	103-105
	Maximum Results for Small Attacks																				
106-108	6CT	8AK	11AP	14AP	10AP	10AP	12AP	14AP	7AP	10AP	12AP	16BP	10AP	11BP	16BP	18CP	14AP	17BP	19BP	20CP	106-108
109-111	6DT	9AP	12AP	15AP	11AP	11AP	12AP	14BP	8AP	11AP	13BP	17CP	11AP	12BP	17BP	19CP	15AP	18BP	20CP	21DP	109-111
112-114	7AU	10AU	13AP	16BP	11AP	11AP	13BP	15CP	9AP	12AP	14BP	18CP	12BP	13BP	18CP	20CP	16BP	19BP	21CP	22DP	112-114
115-117	8AK	10AK	14AK	16BK	12AP	12AP	14BP	16CP	10AP	12BP	15BP	19CP	13BP	14BP	19CP	21CP	17BP	20CP	22DP	23DP	115-117
118-120	9AP	11BP	14BP	17BP	13AP	13AP	15BP	17CP	11BP	13BP	16CP	20CP	13BP	15CP	20CP	22DP	18CP	21CP	23DP	24DK	118-120
	Maximum Results for Medium Attacks																				
121-123	10AU	12BU	15BK	18CK	14AP	14BP	16BP	18CP	12BP	14BP	17CP	21DK	14CP	16CP	21CK	23DK	19CK	22CK	24DP	25DP	121-123
124-126	11AK	13BK	16BP	19CP	15BP	15BP	17CP	19DP	13BP	15BP	17CP	22DP	15CP	17CP	22DP	24DP	20DP	23DP	25DK	26EK	124-126
127-129	12AP	14BP	17CK	20CK	16BP	16BP	18CK	20DK	13BP	16CK	18DK	23DK	16CK	18CK	23DK	25DK	21DK	24DK	26EP	27EP	127-129
130-132	12BU	15CU	18CP	21DP	16BK	16CK	18CP	21DP	14CP	17CP	19DP	24DP	17DP	19DP	24DP	26EP	22DP	25DP	27EU	28EU	130-132
133-135	13BK	15CK	18CK	21DK	17CK	17CP	19CK	22DK	15CK	18CK	20DK	25DK	17DK	20DK	25DK	27EK	23DK	26DK	28EK	29EK	133-135
	Maximum Results for Large Attacks																				
136-138	14BP	16CP	19CP	22DP	18CK	18CK	20CP	23EP	16CP	19DP	21DP	26EP	18DP	21DP	26EP	28EP	24EP	27EP	29EP	30EP	136-138
139-141	15CU	17DU	20DU	23EU	19CP	19DP	21DU	24EU	17DU	20DU	22EU	27EU	19EU	22EU	27EU	29EU	25EU	28EU	30EU	31EU	139-141
142-144	16CK	18DK	21DK	24EK	20DK	20DK	22DK	25EK	18DK	21DK	23EK	28EK	20EK	23EK	28EK	30EK	26EK	29EK	31EK	32EK	142-144
145-147	17DP	19EP	22EP	25EP	21DP	21DP	23EP	26EP	19EP	22EP	24EP	29EP	21EP	24EP	29EP	31EP	27EP	30EP	32EP	33EP	145-147
148-150	18EU	20EU	23EU	26FU	22EU	22EU	24EU	27FU	20EU	23EU	25EU	30FU	22EU	25EU	30EU	33FU	29EU	31EU	34FU	35FU	148-150
	Maximum Results for Huge Attacks																				

NOTE: *An F-severity critical result indicates an E-critical roll on the Puncture Critical Strike Table and a C-critical roll on the Unbalance Critical Strike Table.*

NOTE: *If the attacking creature is "charging," it obtains a* ***+ 20*** *on this table in addition to its other bonuses.*

CRITICAL STRIKES: **P** = *Puncture*, **S** = *Slash*, **K** = *Krush*, **G** = *Grapple*, **U** = *Unbalance*, **T** = *Tiny*

11.1.6 RAM/BUTT/BASH/KNOCK DOWN/SLUG ATTACK TABLE





	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
01-02	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	01-02
03-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	03-30
31-33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31-33
34-36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34-36
37-39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37-39
40-42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40-42
43-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43-45
46-48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	46-48
49-51	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	1	49-51
52-54	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	2	52-54
55-57	0	0	0	1	0	0	0	1	0	0	1	2	0	0	1	2	0	1	2	2	55-57
58-60	0	0	0	2	0	0	0	1	0	0	1	2	0	0	1	2	0	1	2	3	58-60
61-63	0	0	1	2	0	0	1	2	0	0	1	3	1	1	2	3	1	1	3	3	61-63
64-66	0	1	1	3	1	1	1	2	0	0	2	3	1	1	2	3	1	2	3	4	64-66
67-69	1AU	1	1	3	1	1	2	3	0	1	2	4	1	1	3	4	1	2	4	4	67-69
70-72	1AU	1AU	2	4	1AU	1	2	3	1	1	3	4	2	2	3	4	2	3	4	5	70-72
73-75	1AU	2AU	2AU	4	2AU	2AU	3	4	1AU	1	3	5	2	2	4	5	2	3	5	6	73-75
76-78	2AU	2AU	3AU	5AU	2AU	2AU	3	4	1AU	2AU	4	5	3AU	3	4	5	3	4	5	6	76-78
79-81	2AU	2AU	3AU	5AU	3AU	3AU	4AU	5	2AU	2AU	4	6	3AU	3	5	6	3	4	6	7	79-81
82-84	2AU	3AU	4AU	6AU	3AU	3AU	4AU	5AU	2AU	3AU	5AU	6	4AU	4AU	5	7	4	5	7	7	82-84
85-87	3AU	3AU	4AU	6AU	4AU	4AU	5AU	6AU	2AU	3AU	5AU	7AU	4AU	4AU	6	7	4	5	7AK	8	85-87
88-90	3AU	4AU	5AU	7AU	4AU	4AU	5AU	7AU	3AU	4AU	6AU	7AU	5AU	5AU	6AU	8	5AK	5	8AU	8	88-90
91-93	3AU	4AU	5AU	7AK	5AU	5AU	6AU	7AK	3AU	4AU	6AU	8AU	5AU	5AU	7AU	8AK	5AK	6AK	8AK	9	91-93
94-96	4AU	4AU	6AU	8AU	5AU	5AU	6AU	8AU	4AU	5AU	7AU	8AU	5AU	6AU	7AU	9AU	6AU	6AU	9AU	9AK	94-96
97-99	4AU	5AU	6AU	8AK	6AU	6AU	7AU	8AK	4AU	5AU	7AU	9AK	6AU	6AU	8AK	9AK	6AK	7AK	9AK	10AK	97-99
100-102	4AU	5AU	7AU	9BU	6AU	6AU	7AU	9AU	4AU	5AU	8AU	9AU	6AU	7AU	8AU	10AU	7AU	7AU	10AU	11AU	100-102
103-105	5AU	6AU	7AK	9BK	7AU	7AU	8AK	9AK	5AU	6AU	8AU	10AK	7AK	7AU	9AK	10AK	7AK	8AK	10AK	11AK	103-105
	Maximum Results for Small Attacks																				
106-108	5BU	6BU	8BU	10BU	7AU	7AU	8AU	10BU	5BU	6BU	9AU	10AU	7BU	8AU	9AU	11AU	8AU	8AU	11AU	12AU	106-108
109-111	5BU	6BU	8BK	10BK	7BU	7BU	9BK	10BK	6BU	7BU	9BK	11BK	8BK	8AK	10AK	11AK	8AK	9AK	11BK	12AK	109-111
112-114	6BU	7BU	9BU	11CU	8BU	8BU	9BU	11BU	6BU	7BU	10BU	11BU	8BU	9BU	10BU	12BU	9BU	9BU	12BU	13AU	112-114
115-117	6BU	7BK	9BK	11CK	8BK	8BK	10BK	11CK	6BU	8BU	10BK	12CK	9BK	9BK	11BK	13BK	9BK	10BK	13CK	13BK	115-117
118-120	6BU	8BU	10BU	12CU	9BU	9BU	10BU	12CU	7BU	8BU	11CU	12CU	9CU	10BU	11BU	13CU	10BU	10BU	13CU	14BU	118-120
	Maximum Results for Medium Attacks																				
121-123	7BU	8BK	10CK	12CK	9BK	9BK	11CK	13CK	7BU	9BK	11CK	13CK	9CK	10CK	12CK	14CK	10CK	10CK	14CK	14CK	121-123
124-126	7BU	8CU	11CU	13DU	10BU	10CU	11CU	13CU	7CU	9CU	12CU	13CU	10CU	11CU	12CU	14CU	11CU	11CU	14DU	15CU	124-126
127-129	7CU	9CK	11CK	13DK	10CK	10CK	12CK	14DK	8CU	9CK	12DK	14DK	10CK	11CK	13CK	15DK	11CK	11CK	15DK	16DK	127-129
130-132	8CU	9CU	12CU	14DU	11CU	11CU	12CU	14DU	8CU	10CU	13DU	14DU	11DU	12CU	13DU	15DU	12DU	12DU	15DU	16DU	130-132
133-135	8CK	10CK	12CK	14DK	11CK	11CK	13CK	15DK	9CK	10CK	13DK	15DK	11DK	12CK	14DK	16DK	12DK	12DK	16EK	17DK	133-135
	Maximum Results for Large Attacks																				
136-138	8CU	10CU	13CU	15EU	12CU	12CU	13CU	15DU	9CU	11CU	14DU	15DU	12DU	13DU	14DU	16EU	13DU	13DU	16EU	17EU	136-138
139-141	9DK	10DK	13DK	15EK	12CK	12DK	14DK	16EK	9DK	11DK	14EK	16EK	12EK	13DK	15EK	17EK	13EK	13EK	17EK	18EK	139-141
142-144	9DU	11DU	14DU	16EU	13DU	13DU	14DU	16EU	10DU	12DU	15EU	16EU	13EU	14EU	15EU	17EU	14EU	14EU	17EU	18EU	142-144
145-147	9EK	11EK	14EK	16EK	13DK	13DK	15EK	17EK	10EK	12DK	15EK	17EK	13EK	14EK	16EK	18EK	14EK	14EK	18EK	19EK	145-147
148-150	10EU	12EU	15EU	17FU	14EU	14EU	15EU	18FU	11EU	13EU	16EU	18FU	14FU	15FU	17FU	19FU	15FU	15FU	19FU	20EU	148-150
	Maximum Results for Huge Attacks																				

NOTE: *An F-severity critical result indicates an E-critical roll on the Unbalance Critical Strike Table and a C-critical roll on the Krush Critical Strike Table.*

NOTE: *If the attacking creature is "charging," it obtains* **+20** *on this table in addition to any other bonuses.*

CRITICAL STRIKES: **P** = *Puncture*, **S** = *Slash*, **K** = *Krush*, **G** = *Grapple*, **U** = *Unbalance*, **T** = *Tiny*

11.1.7 STINGER ATTACK TABLE







	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
01-02	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	01-02
03-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	03-30
31-33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31-33
34-36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34-36
37-39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37-39
40-42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	40-42
43-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	43-45
46-48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	46-48
49-51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	49-51
52-54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	2	52-54
55-57	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	1	1	2	2AT	55-57
58-60	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	1	1	2AT	2AT	58-60
61-63	0	0	0	1	0	0	0	1	0	0	0	1	1	1	1	2	1	2	2AT	3AT	61-63
64-66	0	0	1	1	0	0	1	1	0	0	1	2	1	1	1	2	2	2	3AT	3AT	64-66
67-69	0	0	1	2	0	0	1	2	0	0	1	2	1	1	1	2	2	2AT	3AT	3AT	67-69
70-72	0	0	1	2	0	0	1	2	0	0	1	2	1	1	2	3	2	3AT	3AT	4AT	70-72
73-75	0	0	1	2	0	1	1	2	0	0	1	3	1	1	2	3AT	2	3AT	4AT	4AT	73-75
76-78	0	0	2	3	1	1	2	3	0	0	2	3	2	2	2	3AT	3	3AT	4AT	4BT	76-78
79-81	0	1	2	3	1	1	2	3AT	0	0	2	3AT	2	2	3AT	4AT	3AT	4AT	4BT	4BT	79-81
82-84	0	1	2	3AT	1	1	2	3AT	0	1	2	4AT	2	2	3AT	4AT	3AT	4AT	5BT	5BT	82-84
85-87	0	1	2	3AT	1	1	3	4AT	0	1	3AT	4AT	2	2AT	3AT	4AT	4AT	4AT	5BT	5BT	85-87
88-90	0	1	3	4AT	1	2	3AT	4AT	1	1AT	3AT	4AT	2AT	2AT	4AT	5AT	4AT	4BT	5BT	5CT	88-90
91-93	0	1	3AT	4AT	2	2	3AT	4AT	1	1AT	3AT	5AT	3AT	3AT	4AT	5BT	4AT	5BT	6CT	6CT	91-93
94-96	1	2	3AT	4AT	2	2	3AT	5BT	1	2AT	4AT	5AT	3AT	3AT	4AT	5BT	4AT	5BT	6CT	6CT	94-96
97-99	1	2AT	3AT	5AT	2AT	2AT	4AT	5BT	1	2AT	4AT	5BT	3AT	3AT	5BT	6BT	5AT	5BT	6CT	6CT	97-99
100-102	1	2AT	4AT	5BT	2AT	2AT	4AT	5BT	1AT	2AT	4AT	6BT	3AT	3AT	5BT	6BT	5BT	6BT	6CT	7CT	100-102
103-105	1AT	2AT	4AT	5BT	2AT	3AT	4AT	6BT	2AT	2AT	5BT	6BT	3AT	3AT	5BT	6CT	5BT	6CT	7CT	7CT	103-105
	Maximum Results for Small Attacks																				
106-108	1AT	2AT	4AT	5BT	3AT	3AT	5AT	6CT	2AT	3AT	5BT	7CT	4AT	4BT	6BT	7CT	6BT	6CT	7CT	7DT	106-108
109-111	1AT	3AT	4AT	6BT	3AT	3AT	5BT	6CT	2AT	3BT	5BT	7CT	4BT	4BT	6CT	7CT	6BT	7CT	7DT	8DT	109-111
112-114	2AT	3AT	5BT	6CT	3AT	3AT	5BT	7CT	2AT	3BT	6BT	7CT	4BT	4BT	6CT	7CT	6CT	7CT	8DT	8DT	112-114
115-117	2AT	3AT	5BT	6CT	3AT	3AT	5BT	7CT	2AT	4BT	6CT	8CT	4BT	4CT	7CT	8CT	6CT	7CT	8DT	8DT	115-117
118-120	2AT	3BT	5BT	7CT	3BT	4BT	6BT	7CT	3AT	4BT	6CT	8CT	4CT	4CT	7CT	8DT	7CT	7DT	8DT	8DT	118-120
	Maximum Results for Medium Attacks																				
121-123	2AT	4BT	5BT	7CT	4BT	4BT	6CT	8DT	3BT	4BT	7CT	8DT	5CT	5CT	7DT	8DT	7CT	8DT	9DT	9ET	121-123
124-126	2AT	4BT	6CT	7DT	4BT	4BT	6CT	8DT	3BT	4CT	7CT	9DT	5CT	5CT	8DT	9DT	7DT	8DT	9ET	9ET	124-126
127-129	2BT	4BT	6CT	7DT	4BT	4BT	7CT	8DT	3BT	5CT	7DT	9DT	5CT	5CT	8DT	9DT	8DT	8DT	9ET	9AP	127-129
130-132	3BT	4BT	6CT	8DT	4CT	4CT	7CT	9DT	3BT	5CT	8DT	9DT	5DT	5DT	8DT	9ET	8ET	9DT	10AP	10AP	130-132
133-135	3BT	4CT	6CT	8DT	4CT	5CT	7CT	9DT	4BT	5DT	8DT	10DT	5DT	5DT	9ET	10AP	8AP	9AP	10AP	10AP	133-135
	Maximum Results for Large Attacks																				
136-138	3BT	5CT	7CT	8ET	5CT	5CT	7DT	9ET	4CT	5DT	8DT	10ET	6DT	6DT	9AP	10AP	8AP	9AP	10AP	10AP	136-138
139-141	3CT	5CT	7DT	9ET	5DT	5DT	8DT	10ET	4CT	6DT	9ET	10AP	6ET	6ET	9AP	10AP	9AP	10AP	11AP	11BP	139-141
142-144	3CT	5DT	7DT	9ET	5DT	5DT	8ET	10ET	4DT	6ET	9AP	11AP	6AP	6AP	10AP	11AP	9AP	10AP	11BP	11BP	142-144
145-147	3DT	5ET	7ET	9ET	5ET	5ET	8AP	10ET	4ET	6ET	9AP	11AP	6AP	6AP	10AP	11AP	9AP	10BP	11BP	11BP	145-147
148-150	4ET	6AP	8AP	10BP	6AP	6AP	9AP	11BP	5ET	7AP	10AP	12BP	7AP	7AP	11BP	12BP	10BP	11BP	12BP	12BP	148-150
	Maximum Results for Huge Attacks																				

NOTE: *A critical result means the attack has injected poison, in addition to a normal critical result (if applicable).*

NOTE: *Swarms of very small creatures (i.e., bees) could roll on this table as a small attack.* **NOTE:** *A really huge stinger (longer than 1') should use the Horn Attack Table.*

CRITICAL STRIKES: **P** = *Puncture*, **S** = *Slash*, **K** = *Krush*, **G** = *Grapple*, **U** = *Unbalance*, **T** = *Tiny*

11.1.8 TINY ANIMAL ATTACK TABLE



	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
01-02	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	01-02
03-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	03-30
31-33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31-33
34-36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	34-36
37-39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	37-39
40-42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	40-42
43-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	43-45
46-48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	2AT	46-48
49-51	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	1	2AT	2AT	49-51
52-54	0	0	0	1	0	0	0	1	0	0	0	1	0	0	1	1	1	1	2AT	3AT	52-54
55-57	0	0	0	1	0	0	0	1	0	0	0	1	0	0	1	2	1	1	3AT	3AT	55-57
58-60	0	0	1	2	0	0	1	2	0	0	1	2	0	0	1	2	1	2	3AT	3AT	58-60
61-63	0	0	1	2	0	0	1	2	0	0	1	2	0	0	1	2	1	2	3AT	4AT	61-63
64-66	0	0	1	2	0	0	1	2	0	0	1	2	0	0	2	3AT	2	2	4AT	4BT	64-66
67-69	0	0	1	3	0	0	1	3	0	0	1	3	1	1	2	3AT	2	3AT	4AT	5BT	67-69
70-72	0	0	2	3	0	1	2	3	0	0	2	3	1	1	2AT	3AT	2	3AT	4BT	5BT	70-72
73-75	0	1	2	3	1	1	2	3	0	0	2	3AT	1	1	3AT	4AT	3	3AT	5BT	5BT	73-75
76-78	0	1	2	4	1	1	2	4AT	0	1	2	4AT	1	1AT	3AT	4AT	3	4AT	5BT	6BT	76-78
79-81	0	1	3	4AT	1	1	3	4AT	0	1	3	4AT	2AT	2AT	3AT	4AT	3AT	4AT	5BT	6CT	79-81
82-84	0	1	3	4AT	1	1	3	4AT	1	1	3AT	4AT	2AT	2AT	4AT	5AT	4AT	4AT	6BT	6CT	82-84
85-87	0	1	3	5AT	1	1	3AT	5AT	1	1	3AT	5AT	2AT	2AT	4AT	5BT	4AT	5AT	6CT	7CT	85-87
88-90	1	2	4AT	5AT	2	2	4AT	5AT	1	2	4AT	5AT	2AT	2AT	4AT	5BT	4AT	5BT	6CT	7CT	88-90
91-93	1	2AT	4AT	5AT	2	2	4AT	5BT	1	2AT	4AT	5AT	3AT	3AT	5BT	6BT	5AT	5BT	7CT	8CT	91-93
94-96	1	2AT	4AT	6AT	2AT	2AT	4AT	6BT	1	2AT	4AT	6BT	3AT	3BT	5BT	6BT	5AT	6BT	7CT	8CT	94-96
97-99	1	2AT	4AT	6AT	2AT	2AT	4AT	6BT	1AT	2AT	4AT	6BT	3BT	3BT	5BT	6CT	5AT	6BT	8CT	8CT	97-99
100-102	1AT	3AT	5AT	6BT	2AT	2AT	5AT	6BT	2AT	3AT	5AT	6BT	3BT	3BT	6BT	6CT	6BT	6BT	8CT	9CT	100-102
103-105	2AT	3AT	5AT	7BT	3AT	3AT	5AT	7CT	2AT	3AT	5BT	7CT	4BT	4BT	6CT	7CT	6BT	7CT	8CT	9CT	103-105
	Normal Maximum Results for an Attack																				
106-108	2AT	3AT	5BT	7BT	3AT	3AT	5BT	7CT	2AT	3AT	5BT	7CT	4BT	4CT	6CT	7CT	6BT	7CT	9CT	9CT	106-108
109-111	2AT	3AT	6BT	7BT	3AT	3AT	6BT	7CT	2AT	3AT	6BT	7CT	4CT	4CT	6CT	7CT	6BT	7CT	9CT	10CT	109-111
112-114	2AT	4BT	6BT	8CT	3AT	3AT	6BT	8CT	2AT	4BT	6BT	8CT	4CT	4CT	7CT	8CT	7CT	8CT	9CT	10CT	112-114
115-117	2AT	4BT	6BT	8CT	3BT	3AT	6BT	8CT	3AT	4BT	6CT	8CT	5CT	5CT	7CT	8CT	7CT	8CT	10CT	10DT	115-117
118-120	3AT	4BT	7BT	8CT	4BT	4BT	7CT	8CT	3AT	4BT	7CT	8CT	5CT	5CT	7CT	8CT	7CT	8CT	10CT	11DT	118-120
	Maximum Results for an Attack the Round After a Critical Result																				
121-123	3AT	4BT	7CT	9CT	4BT	4BT	7CT	9CT	3BT	4BT	7CT	9CT	5CT	5CT	8CT	9DT	8CT	9CT	10DT	11DT	121-123
124-126	3BT	5BT	7CT	9CT	4BT	4BT	7CT	9CT	3BT	5BT	7CT	9CT	5CT	5CT	8CT	9DT	8CT	9CT	11DT	12DT	124-126
127-129	3BT	5CT	7CT	9CT	4BT	4BT	7CT	9CT	3BT	5CT	7CT	9DT	6CT	6CT	8DT	9DT	8CT	9DT	11DT	12DT	127-129
130-132	3BT	5CT	8CT	10CT	4CT	4CT	8CT	10DT	3BT	5CT	8CT	10DT	6CT	6CT	9DT	10DT	9CT	10DT	11DT	12DT	130-132
133-135	4BT	5CT	8CT	10DT	5CT	5CT	8CT	10DT	4BT	5CT	8CT	10DT	6DT	6DT	9DT	10DT	9DT	10DT	12DT	13DT	133-135
	Maximum Results for an Attack the Round After Two Consecutive Critical Results																				
136-138	4BT	6CT	8CT	10DT	5CT	5CT	8CT	10DT	4CT	6CT	8DT	10DT	6DT	6DT	9DT	10DT	9DT	10DT	12DT	13DT	136-138
139-141	4CT	6CT	9CT	11DT	5CT	5CT	9CT	11DT	4CT	6CT	9DT	11DT	7DT	7DT	10DT	11DT	10DT	11DT	12DT	13DT	139-141
142-144	4CT	6CT	9DT	11DT	5CT	5CT	9DT	11DT	4CT	6DT	9DT	11DT	7DT	7DT	10DT	11DT	10DT	11DT	13DT	14DT	142-144
145-147	4CT	6DT	9DT	11DT	5CT	5DT	9DT	11DT	4CT	6DT	9DT	11DT	7DT	7DT	10DT	11DT	10DT	11DT	13DT	14DT	145-147
148-150	5DT	7DT	10DT	12DT	6DT	6DT	10DT	12DT	5DT	7DT	10DT	12DT	8DT	8DT	11DT	12DT	11DT	12DT	14DT	15DT	148-150
	Maximum Results for an Attack the Round After Three or More Consecutive Critical Results																				



NOTE: *This table is used only for very small animals (e.g. house cats).*

NOTE: *The maximum result depends upon how many consecutive critical results were achieved in the rounds immediately proceeding the attack.*

CRITICAL STRIKES: **P** = *Puncture*, **S** = *Slash*, **K** = *Krush*, **G** = *Grapple*, **U** = *Unbalance*, **T** = *Tiny*

11.1.9 TRAMPLE/STOMP ATTACK TABLE





	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
01-02	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	01-02
03-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	03-30
31-33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	31-33
34-36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	34-36
37-39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	37-39
40-42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2AT	4AT	40-42
43-45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	1	3BT	5BT	43-45
46-48	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	3	0	1	4CT	6CT	46-48
49-51	0	0	0	1	0	0	1	1	0	0	0	2	0	0	1	4AT	1	2	5DT	7DT	49-51
52-54	0	0	0	1	0	0	1	2	0	0	0	3	0	0	2	5BT	1	3	6ET	8ET	52-54
55-57	0	0	1	2	0	1	2	3	0	0	1	4	1	1	3	6CT	2	4AT	7AK	9AK	55-57
58-60	0	0	1	3	1	1	2	4	0	0	1	5	1	2	4AT	7DT	3	5BT	8AK	10AK	58-60
61-63	0	0	2	4	1	2	3	4AT	0	0	2	6	2	3AT	5BT	8ET	4AT	6CT	9AK	11AK	61-63
64-66	0	0	2	4	2	2	4	5BT	0	1	3	7AT	3AT	4BT	6CT	9AK	5BT	7DT	10AK	12AK	64-66
67-69	0	1	3	5	2	3	4	6CT	0	1	3	7BT	4BT	5CT	7DT	10AK	6CT	8ET	11AK	13AK	67-69
70-72	0	1	4	6AT	3	3	5AT	7DT	1	2	4	8CT	5CT	6DT	8ET	11AK	7DT	9AK	12AK	14AK	70-72
73-75	0	2	4	7BT	3	4	6BT	8ET	1	2	5AT	9DT	6DT	7ET	9AK	12AK	8ET	10AK	13AK	15AK	73-75
76-78	0	2	5	7CT	4	4	6CT	8AK	2	3	6BT	10ET	7ET	8AK	10AK	13AK	9AK	11AK	14BK	16BK	76-78
79-81	1	3	5AT	8DT	4	5AT	7DT	9AK	2	4	6CT	11AK	8AK	9AK	11AK	14AK	10AK	11AK	15BK	17BK	79-81
82-84	1	4AT	6BT	9ET	5AT	5BT	8ET	10AK	3	4AT	7DT	12AK	9AK	10AK	12AK	15BK	11AK	12AK	16BK	18BK	82-84
85-87	2	4BT	7CT	10AK	6BT	6CT	8AK	11AK	3	5BT	8ET	13AK	10AK	11AK	13AK	16BK	11AK	13AK	17BK	19BK	85-87
88-90	2	5CT	7DT	10AK	6CT	7DT	9AK	12AK	4AT	6CT	9AK	13AK	11AK	12AK	14BK	17BK	12AK	14BK	18BK	20BK	88-90
91-93	3AT	6DT	8ET	11AK	7DT	7ET	9AK	12AK	5BT	6DT	9AK	14AK	12AK	13AK	15BK	18BK	13AK	15BK	19BK	21BK	91-93
94-96	4BT	6ET	8AK	12AK	7ET	8AK	10AK	13BK	5CT	7ET	10AK	15BK	13AK	14BK	16BK	19BK	14BK	16BK	20BK	22CK	94-96
97-99	4CT	7AK	9AK	13AK	8AK	8AK	11AK	14BK	6DT	8AK	11AK	16BK	14AK	15BK	17BK	20CK	15BK	17BK	21CK	23CK	97-99
100-102	5DT	7AK	10AK	13BK	8AK	9AK	11AK	15BK	6ET	8AK	12AK	17CK	15BK	16BK	18CK	21CK	16BK	18CK	22CK	24CK	100-102
103-105	5ET	8AK	10AK	14BK	9AK	9AK	12BK	16CK	7AK	9AK	12BK	18CK	15BK	17BK	19CK	22CK	17BK	19CK	23CK	25CK	103-105
	Maximum Results for Small Attacks																				
106-108	6AK	9AK	11AK	15BK	10AK	10AK	13BK	16CK	7AK	10AK	13BK	19CK	16BK	18CK	20CK	23CK	18CK	20CK	24CK	26CK	106-108
109-111	7AK	9AK	12BK	16CK	10AK	10BK	13BK	17CK	8AK	10AK	14BK	19CK	17BK	19CK	21CK	24CK	19CK	21CK	25CK	27CK	109-111
112-114	7AK	10AK	12BK	16CK	11AK	11BK	14BK	18CK	9AK	11BK	15CK	20CK	18CK	20CK	22CK	25CK	20CK	22CK	26CK	28CK	112-114
115-117	8AK	11BK	13BK	17CK	11BK	11BK	15CK	19CK	9AK	11BK	15CK	21CK	19CK	21CK	23CK	26CK	21CK	22CK	27CK	29CK	115-117
118-120	8AK	11BK	13BK	18CK	12BK	12BK	15CK	20CK	10BK	12BK	16CK	22CK	20CK	22CK	24CK	27CK	21CK	23CK	28CK	30CK	118-120
	Maximum Results for Medium Attacks																				
121-123	9BK	12BK	14CK	19CK	12BK	13BK	16CK	20CK	10BK	13BK	17CK	23DK	21CK	23CK	25DK	28DK	22CK	24DK	29DK	31DK	121-123
124-126	10BK	12BK	15CK	19CK	13BK	13CK	16CK	21CK	11BK	13BK	18CK	24DK	22CK	24CK	26DK	29DK	23DK	25DK	30EK	32DK	124-126
127-129	10BK	13CK	15CK	20DK	14CK	14CK	17CK	22DK	11BK	14CK	18DK	25DK	23DK	25DK	27DK	30EK	24DK	26DK	31EK	33EK	127-129
130-132	11BK	14CK	16CK	21DK	14CK	14CK	18CK	23DK	12CK	15CK	19DK	25EK	24DK	26DK	28EK	31EK	25DK	27EK	32EK	34EK	130-132
133-135	11CK	14CK	16CK	22EK	15CK	15CK	18DK	24EK	13CK	15CK	20DK	26EK	25DK	27DK	29EK	32EK	26EK	28EK	33EK	35EK	133-135
	Maximum Results for Large Attacks																				
136-138	12CK	15CK	17DK	22EK	15CK	15DK	19DK	24EK	13CK	16CK	21EK	27EK	26EK	28EK	30EK	33EK	27EK	29EK	34EK	36EK	136-138
139-141	13DK	16DK	18DK	23EK	16DK	16DK	20DK	25EK	14DK	17DK	21EK	28EK	27EK	29EK	31EK	34EK	28EK	30EK	35EK	37EK	139-141
142-144	13DK	16DK	18DK	24EK	16DK	16DK	20EK	26EK	14DK	17DK	22EK	29EK	28EK	30EK	32EK	35EK	29EK	31EK	36EK	38EK	142-144
145-147	14EK	17EK	19EK	25EK	17EK	17EK	21EK	27EK	15EK	18EK	23EK	30FK	29EK	31EK	33EK	36EK	30EK	32EK	37EK	39EK	145-147
148-150	14FK	18FK	20FK	26FK	18FK	18FK	22FK	28FK	16FK	19FK	24FK	31FK	30FK	32FK	34FK	37FK	31FK	33FK	38FK	40FK	148-150
	Maximum Results for Huge Attacks																				

NOTE: *An F-severity critical indicates an E-critical roll and a C-critical roll (both Krush criticals).*

NOTE: *If the target is down the attacker obtains* ***+ 30*** *in addition to its other bonuses.*

CRITICAL STRIKES: **P** = *Puncture*, **S** = *Slash*, **K** = *Krush*, **G** = *Grapple*, **U** = *Unbalance*, **T** = *Tiny*





11.2.1 FALL/CRUSH ATTACK TABLE

	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
01-02	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	01-02
03-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	03-30
31-33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	31-33
34-36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2AK	34-36
37-39	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	2AK	0	1	3AK	3AK	37-39
40-42	0	0	0	0	0	0	1	2	0	0	0	1	0	1	2AK	3AK	1	2	4AK	4AK	40-42
43-45	0	0	0	1	0	1	2	3	0	0	1	2	1	2AK	3AK	4AK	2	3AK	5AK	6AK	43-45
46-48	0	0	1	1	1	1	3	4	0	0	1	3	1AK	3AK	4AK	5AK	3	4AK	7AK	7AK	46-48
49-51	0	0	1	2	1	2	4	5AK	0	0	2	4	2AK	4AK	5AK	7AK	4AK	5AK	8AK	8AK	49-51
52-54	0	0	2	3	2	3	5	6AK	0	1	3	5AK	3AK	5AK	6AK	8AK	5AK	6AK	9AK	9AK	52-54
55-57	0	0	3	4	3	4	6AK	7AK	0	1	4	6AK	4AK	6AK	7AK	9AK	6AK	8AK	10AK	11AK	55-57
58-60	0	1	4	5	4	5AK	7AK	9AK	0	2	5AK	7AK	5AK	7AK	8AK	10AK	7AK	9AK	11AK	12AK	58-60
61-63	0	1	5	6AK	5AK	6AK	8AK	10AK	1	3	6AK	8AK	6AK	8AK	10AK	11AK	8AK	10AK	13AK	13AK	61-63
64-66	0	2	6	7AK	6AK	7AK	9AK	11AK	1	4	7AK	9AK	7AK	9AK	11AK	13AK	9AK	11AK	14AK	14AK	64-66
67-69	0	3	6AK	8AK	7AK	8AK	10AK	12AK	2	5AK	8AK	10AK	8AK	10AK	12AK	14AK	10AK	12AK	15AK	16AK	67-69
70-72	1	4	7AK	9AK	8AK	9AK	11AK	13AK	3	6AK	9AK	11AK	8AK	11AK	13AK	15AK	11AK	14AK	16AK	17AK	70-72
73-75	1	5AK	8AK	10AK	8AK	10AK	12AK	14AK	4	7AK	10AK	12AK	9AK	12AK	14AK	16AK	12AK	15AK	17AK	18AK	73-75
76-78	2	5AK	9AK	11AK	9AK	11AK	13AK	16AK	5AK	8AK	11AK	13AK	10AK	13AK	15AK	17BK	14AK	16AK	19BK	19BK	76-78
79-81	3	6AK	10AK	12AK	10AK	12AK	14AK	17AK	6AK	9AK	12AK	14AK	11AK	14AK	16BK	19BK	15AK	17AK	20BK	21BK	79-81
82-84	3AK	7AK	11AK	13AK	11AK	13AK	15AK	18BK	7AK	10AK	13AK	15BK	12AK	15BK	18BK	20BK	16BK	18BK	21BK	22BK	82-84
85-87	4AK	8AK	12AK	14AK	12AK	14AK	16AK	19BK	8AK	11AK	14AK	16BK	13AK	16BK	19BK	21BK	17BK	20BK	22BK	23CK	85-87
88-90	5AK	9AK	12AK	15AK	13AK	15AK	17AK	20BK	9AK	12AK	15AK	17BK	14BK	17BK	20BK	22CK	18BK	21BK	23CK	24CK	88-90
91-93	6AK	9AK	13AK	16AK	14AK	16AK	18BK	21BK	9AK	13AK	16BK	18CK	15BK	18BK	21CK	24CK	19BK	22BK	25CK	26CK	91-93
94-96	6AK	10AK	14AK	17BK	15AK	17BK	20BK	23CK	10AK	14AK	17BK	20CK	16BK	19BK	22CK	25CK	20BK	23CK	26CK	27CK	94-96
97-99	7AK	11AK	15AK	18BK	16BK	17BK	21BK	24CK	11AK	15AK	17BK	21CK	16BK	20CK	23CK	26CK	21CK	24CK	27CK	28CK	97-99
100-102	8AK	12AK	16BK	19BK	16BK	18BK	22BK	25CK	12AK	16AK	18BK	22CK	17BK	21CK	24CK	27CK	22CK	25CK	28CK	29CK	100-102
103-105	9AK	13AK	17BK	20BK	17BK	19BK	23BK	26CK	13AK	16BK	19CK	23CK	18CK	22CK	25CK	28CK	23CK	27CK	29CK	31CK	103-105
	Maximum Results for Falls of 1'-10' and Small Attacks																				
106-108	9AK	13BK	18BK	21CK	18BK	20BK	24CK	27CK	14AK	17BK	20CK	24DK	18CK	23CK	27DK	30DK	24CK	28DK	31DK	32DK	106-108
109-111	10AK	14BK	18BK	22CK	19BK	21BK	25CK	28DK	15AK	18BK	21CK	25DK	20CK	24CK	28DK	31DK	25CK	29DK	32DK	33DK	109-111
112-114	11AK	15BK	19BK	23CK	20BK	22CK	26CK	30DK	16BK	19BK	22CK	26DK	21CK	25CK	29DK	32DK	27DK	30DK	33DK	34DK	112-114
115-117	11BK	16BK	20CK	24CK	21CK	23CK	27CK	31DK	17BK	20BK	23DK	27DK	22CK	26CK	30DK	33DK	28DK	31DK	34DK	36DK	115-117
118-120	12BK	17BK	21CK	25DK	22CK	24CK	28CK	32DK	18BK	21BK	24DK	28DK	23DK	27DK	31DK	34DK	29DK	33DK	35DK	37DK	118-120
	Maximum Results for Falls of 11'-50' and Medium Attacks																				
121-123	13BK	17CK	22CK	26DK	23CK	25CK	29CK	33DK	18BK	22CK	25DK	29DK	24DK	28DK	32DK	36DK	30DK	34DK	37DK	38EK	121-123
124-126	14BK	18CK	23CK	27DK	23CK	26CK	30CK	34DK	19BK	23CK	26DK	30DK	24DK	29DK	33DK	37EK	31DK	35DK	38EK	39EK	124-126
127-129	14BK	19CK	24CK	28DK	24CK	27CK	31CK	35DK	20CK	24CK	27DK	31EK	25DK	30DK	35EK	38EK	32DK	36EK	39EK	41EK	127-129
130-132	15CK	20CK	24CK	29DK	25CK	28DK	32DK	37EK	21CK	25CK	28DK	32EK	26DK	31DK	36EK	39EK	33EK	37EK	40EK	42EK	130-132
133-135	16CK	21CK	25DK	30EK	26DK	29DK	33DK	38EK	22CK	26CK	29EK	33EK	27EK	32EK	37EK	40EK	34EK	39EK	41EK	43EK	133-135
	Maximum Results for Falls of 51'-100' and Large Attacks																				
136-138	17CK	21DK	26DK	31EK	27DK	30DK	34DK	39EK	23CK	27DK	30EK	34EK	28EK	33EK	38EK	42EK	35EK	40EK	43EK	44EK	136-138
139-141	17DK	22DK	27DK	32EK	28DK	31DK	35DK	40EK	24DK	28DK	31EK	35EK	29EK	34EK	39EK	43EK	36EK	41EK	44EK	46EK	139-141
142-144	18DK	23DK	28EK	33EK	29EK	32EK	36EK	41EK	25DK	29DK	32EK	36EK	30EK	35EK	40EK	44EK	37EK	42EK	45EK	47EK	142-144
145-147	19EK	24EK	29EK	34EK	30EK	33EK	37EK	42EK	26EK	30EK	33EK	37FK	31EK	36EK	41EK	45EK	38EK	43EK	46EK	48EK	145-147
148-150	20FK	25FK	30FK	35FK	31FK	34FK	39FK	44FK	27FK	31FK	34FK	39FK	32FK	38FK	43FK	47FK	40FK	45FK	48FK	50FK	148-150
	Maximum Results for Falls over 100' and Huge Attacks																				

NOTE: *For falls, add **1** to the roll for each foot fallen (other factors may modify this).*

NOTE: *An F-severity critical result indicates an E-critical roll and a C-critical roll (both Krush criticals).*

CRITICAL STRIKES: **P** = *Puncture*, **S** = *Slash*, **K** = *Krush*, **G** = *Grapple*, **U** = *Unbalance*, **T** = *Tiny*







11.2.2 MARTIAL ARTS STRIKING ATTACK TABLE

	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
01-02	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	01-02
03-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	03-30
31-33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31-33
34-36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34-36
37-39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37-39
40-42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	40-42
43-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	43-45
46-48	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	1	2	2	46-48
49-51	0	0	0	0	0	1	1	1	0	0	0	1	0	1	1A	2	1	1	2	3	49-51
52-54	0	0	0	1	0	1	1	2	0	0	1	1	1	1	2A	2	1	2	3	3	52-54
55-57	0	0	1	1	1	1	2	2	0	0	1	2	1	2	2A	3	2	2	4	4A	55-57
58-60	0	0	1	2	1	2	2	3	0	0	2	2	2	2	3A	4A	2	3	4A	5A	58-60
61-63	0	0	1	2	1	2	3	4	0	1	2	3	2	3	4A	4A	3	4	5A	5A	61-63
64-66	0	0	2	3	2	3	3	4	0	1	3	3	3	3A	4A	5A	3	4A	6A	6A	64-66
67-69	0	1	2	3	2	3	4	5	0	1	3	4	3A	4A	5A	6A	4	5A	6A	7A	67-69
70-72	0	1	3	4	3	4	5	5A	1	2	4	4	4A	4A	5A	6A	5A	5A	7A	7A	70-72
73-75	0	1	3	4	3	4	5	6A	1	2	4	5A	4A	5A	6A	7A	5A	6A	8A	8A	73-75
76-78	0	2	4	5	4	5	6A	7A	1	3	5	5A	5A	5A	7A	8A	6A	7A	8A	9A	76-78
79-81	1	2	4	5	4	5A	6A	7A	2	3	5A	6A	5A	6A	7B	8A	6A	6A	9A	9A	79-81
82-84	1	3	5	6A	5A	6A	7A	8A	2	4	6A	7A	6A	7A	8B	9A	7A	8A	9A	10A	82-84
85-87	1	3	5	6A	5A	6A	7A	9A	3	4	6A	7A	6A	7A	9B	10A	7A	9A	10A	11A	85-87
88-90	2	4	5A	7A	6A	7A	8A	9A	3	5A	7A	8A	7A	8A	9B	10A	8A	9A	11A	11A	88-90
91-93	2	4	6A	7A	6A	7A	9A	10A	4	5A	7A	8A	7B	8B	10B	11B	9A	10B	11B	12B	91-93
94-96	2	5A	6A	8A	7A	8A	9A	10A	4	6A	8A	9A	8B	9B	10B	12B	9A	10B	12B	13B	94-96
97-99	3	5A	7A	8A	7A	8A	10A	11A	5A	6A	8A	9A	8B	9B	11C	12B	10A	11B	13B	13B	97-99
100-102	3	5A	7A	9A	8A	9A	10A	12A	5A	7A	9A	10A	9B	10B	12C	13B	10A	12B	13B	14B	100-102
103-105	4A	6A	8A	10B	8B	9B	11B	12B	6A	7A	9B	10B	9B	10B	12C	14B	11B	12B	14B	15B	103-105
	Maximum Results for Rank 1 Attacks																				
106-108	4A	6A	8A	10B	9B	10B	11B	13B	6A	8A	10B	11B	10C	11C	13C	14C	11B	13C	15C	15C	106-108
109-111	4A	7A	9A	11B	9B	10B	12B	13B	7A	8A	10B	11B	10C	11C	13C	15C	12B	13C	15C	16C	109-111
112-114	5A	7A	9A	11B	10B	11B	13B	14B	7A	9A	11B	12B	11C	12C	14C	16C	13B	14C	16C	17C	112-114
115-117	5A	8B	10B	12C	10C	11C	13C	15C	7B	9B	11C	13C	11C	13C	15C	16C	13C	15C	16C	17C	115-117
118-120	6A	8B	10B	12C	11C	12C	14C	15C	8B	10B	12C	13C	12C	13C	15C	17C	14C	15C	17C	18C	118-120
	Maximum Results for Rank 2 Attacks																				
121-123	6A	9B	10B	13C	11C	12C	14C	16C	8B	10B	12C	14C	12D	14D	16D	18C	14C	16D	18D	19D	121-123
124-126	6A	9C	11C	13C	12C	13C	15C	17C	9C	11C	13C	14C	13D	14D	17D	18D	15C	17D	18D	19D	124-126
127-129	7B	9C	11C	14D	12D	13D	15D	17D	9C	11C	13D	15D	13D	15D	17D	19D	15D	17D	19D	20D	127-129
130-132	7B	10C	12C	14D	13D	14D	16D	18D	10C	12C	14D	15D	14D	15D	18D	20D	16D	18D	20D	21D	130-132
133-135	8C	10D	12D	15D	13D	14D	17D	18D	10D	12D	14D	16D	14D	16D	18E	20D	17D	18D	20D	21D	133-135
	Maximum Results for Rank 3 Attacks																				
136-138	8C	11D	13D	15D	14D	15D	17D	19D	11D	13D	15D	16D	15E	16E	19E	21E	17D	19E	21E	22E	136-138
139-141	8D	11D	13D	16E	14E	15E	18E	20E	11D	13D	15E	17E	15E	17E	20E	22E	18E	20E	22E	23E	139-141
142-144	9D	12E	14E	16E	15E	16E	18E	20E	12E	14E	16E	17E	16E	17E	20E	22E	18E	20E	22E	23E	142-144
145-147	9E	12E	14E	17E	15E	16E	19E	21E	12E	14E	16E	18E	16E	18E	21E	23E	19E	21E	23E	24E	145-147
148-150	10E	13E	15E	18E	16E	17E	20E	22E	13E	15E	17E	19E	17E	19E	22E	24E	20E	22E	24E	25E	148-150
	Maximum Results for Rank 4 Attacks																				

NOTE: *All critical results are rolled on the Martial Arts Striking Critical Table.*

NOTE: *Bare hands attacks by non-martial artists are Rank 1 attacks.*

11.2.3 MARTIAL ARTS SWEEPS AND THROWS ATTACK TABLE





	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
01-02	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	01-02
03-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	03-30
31-33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31-33
34-36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34-36
37-39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37-39
40-42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40-42
43-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43-45
46-48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46-48
49-51	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49-51
52-54	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52-54
55-57	1A	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55-57
58-60	1A	1A	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58-60
61-63	1A	1A	1A	1	1A	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	61-63
64-66	1A	1A	1A	1A	1A	1A	1	0	1	1	0	0	1	0	0	0	0	0	0	0	64-66
67-69	1A	1A	1A	1A	1A	1A	1	1	1A	1	0	0	1A	1	0	0	0	0	0	0	67-69
70-72	1A	1A	1A	2A	2A	1A	1A	1	1A	1A	1	0	1A	1	0	0	0	0	0	0	70-72
73-75	1A	2A	2A	2A	2A	2A	1A	1A	1A	1A	1	1	2A	1A	1	0	0	0	0	0	73-75
76-78	1A	2A	2A	2A	2A	2A	2A	2A	1A	1A	1A	1	2A	2A	1	1	0	0	0	0	76-78
79-81	1A	2A	2A	2A	2A	2A	2A	2A	1A	2A	2A	1A	2A	2A	1A	1	0	0	0	0	79-81
82-84	2A	2A	2A	3A	3A	2A	2A	2A	1A	2A	2A	2A	3A	2A	2A	1A	0	0	0	0	82-84
85-87	2A	2A	3A	3A	3A	3A	3A	3A	2A	2A	2A	2A	3A	3A	2A	2A	0	0	0	0	85-87
88-90	2A	2A	3A	3A	3A	3A	3A	3A	2A	2A	3A	3A	3A	3A	3A	2A	1	0	1	0	88-90
91-93	2B	3B	3B	3B	3B	3B	3A	3A	2B	2A	3A	3A	4B	3A	3A	3A	1	1	1A	0	91-93
94-96	2B	3B	3B	4B	3B	3B	3A	4A	2B	3A	3A	3A	4B	4A	3A	3A	1A	1	2A	1	94-96
97-99	2B	3B	4B	4B	4B	4B	4A	4A	2B	3A	4A	4A	4B	4A	4A	4A	2A	1A	2A	1	97-99
100-102	2B	3B	4B	4B	4B	4B	4A	4A	2B	3A	4A	4A	5B	4A	4A	4A	2A	2A	3A	2A	100-102
103-105	2B	3B	4B	5B	4B	4B	4B	5B	2B	3B	4B	5B	5B	5B	5B	5B	3A	2A	3A	2A	103-105
	Maximum Results for Rank 1 Attacks																				
106-108	2C	3C	4C	5C	4C	4C	5B	5B	3C	4B	5B	5B	5C	5B	5B	5B	3A	3A	4A	3A	106-108
109-111	2C	3C	4C	5C	5C	4C	5B	5B	3C	4B	5B	5B	5C	5B	5B	6B	3A	3A	4A	4A	109-111
112-114	2C	4C	5C	5C	5C	5C	5B	6B	3C	4B	5B	6B	6C	6B	6B	6B	4A	4A	5A	4A	112-114
115-117	3C	4C	5C	6C	5C	5C	5C	6C	3C	4C	6C	6C	6C	6C	6C	6C	4B	4B	5B	5B	115-117
118-120	3C	4C	5C	6C	5C	5C	6C	6C	3C	4C	6C	7C	6C	6C	7C	7C	5B	5B	6B	5B	118-120
	Maximum Results for Rank 2 Attacks																				
121-123	3D	4D	5D	6D	5D	5D	6C	7C	3D	5C	6C	7C	7D	7C	7C	7C	5B	5B	7B	6B	121-123
124-126	3D	4D	6D	6D	6D	6D	6C	7C	3D	5C	7C	7C	7D	7C	7C	8C	5C	6C	7C	7C	124-126
127-129	3D	4D	6D	7D	6D	6D	7D	7D	4D	5D	7D	8D	7D	7D	8D	8D	6C	6C	8C	7C	127-129
130-132	3D	5D	6D	7D	6D	6D	7D	8D	4D	5D	7D	8D	8D	8D	8D	9D	6C	7C	8C	8C	130-132
133-135	3D	5D	6D	7D	6D	6D	7D	8D	4D	5D	8D	9D	8D	8D	9D	9D	7D	7D	9D	8D	133-135
	Maximum Results for Rank 3 Attacks																				
136-138	3E	5E	7E	7E	7E	7E	7D	8D	4E	6D	8D	9D	8E	8D	9D	10D	7D	8D	9D	9D	136-138
139-141	3E	5E	7E	8E	7E	7E	8E	9E	4E	6E	8E	9E	9E	9E	9E	10E	7D	8D	10D	10D	139-141
142-144	3E	5E	7E	8E	7E	7E	8E	9E	4E	6E	9E	10E	9E	9E	10E	11E	8E	9E	10E	10E	142-144
145-147	3E	5E	7E	8E	7E	7E	8E	9E	4E	6E	9E	10E	9E	9E	10E	11E	8E	9E	11E	11E	145-147
148-150	4E	6E	8E	9E	8E	8E	9E	10E	5E	7E	10E	11E	10E	10E	11E	12E	9E	10E	12E	12E	148-150
	Maximum Results for Rank 4 Attacks																				

NOTE: *All critical results are rolled on the Martial Arts Striking Critical Table.* **NOTE:** *Bare hands attacks by non-martial artists are Rank 1 attacks.*

NOTE: *Humanoid type creatures attempting to subdue (without major injury) other humanoid types may use this table or the Grapple Attack Table (both with a maximum result of 105).*

8.1.1 SLASH CRITICAL STRIKE TABLE

	A	B	C	D	E
01-05	Zip.	Weak strike. +0 hits.	+1 hit	+ 2 hits	+3 hits
06-10	+1 hit.	+2 hits.	+3 hits	+4 hits	Unbalance foe. +5 hits. You receive initiative next round.
11-15	You receive initiative next round. +1 hit.	Glancing blow to foe's side. +3 hits. You receive initiative next round.	Blow to foe's side yields +6 hits. You receive initiative next round.	+3 hits. Foe must parry for next round of action.	+4 hits. Foe must parry next round of action.
16-20	Foe must parry next round. +1 hit.	Blow to side. +2 hits. Foe must parry next round at -10.	Blow to side. +4 hits. Foe must parry next round -20.	Minor side wound. Foe at -10. +2 hits. Receive initiative next round.	Stun foe for 1 round. Foe may not parry. Add +10 to your next swing.
21-35	Foe must parry next round. +2 hits. Add +10 to next swing.	Foe must parry next round -20 +2 hits.	You break foe's rib. 3 extra hits. Foe is stunned next round.	Strike to side. Foe is stunned for next round and cannot parry. +3 hits.	Foe receives minor side wound, fights at -10 and takes 1 hit per round. +3 hits.
36-45	Minor calf wound. Foe receives 1 hit per round.	Minor calf wound. Foe takes 1 hit per round. +2 hits.	You slash foe's leg. Foe takes 2 hits per round. +2 hits.	You slash foe's upper leg and deliver 3 extra hits. Foe takes 2 hits a round.	Blow to foe's upper leg. If foe has leg armor +5 hits. If foe has no armor, +3 hits and +3 hits per rnd.
46-50	Blow to foe's back. +2 hits. Foe must parry next round at -30.	Blow to foe's back. Foe must parry next round at -30. +4 hits.	Blow to foe's back stun foe 1 round. Foe may not parry. +3 hits and foe takes 1 hit/rnd.	Strike foe's lower back. Foe may not parry and is out next round. +3 hits. Foe takes 2 hits/rnd.	Strike to foe's lower back. Foe may not parry and is out next round. +4 hits. Foe takes 3 hits per round.
51-55	Blow to foe's chest. Foe must parry next round -25. Wound gives 1 hit per round. +2 hits.	Minor chest wound. Foe takes 1 hit/rnd and must parry next 2 rnds. +3 hits. Foe fights -5.	Minor chest wound. +4 hits. Foe takes 2 hits per round and fights at -10. Foe must parry next rnd.	Medium chest wound. +5 hits. Foe takes 3 hits per round, fights at -15, and must parry next round.	Chest wound. Foe takes 4 hits per round, is at -10, and is stunned 2 rounds. +6 hits.
56-60	Minor thigh wound. Foe takes 2 hits per round and must parry next rnd. +3 hits.	Minor thigh wound. Foe takes 2 hits per round. +4 hits. Foe must parry next two rounds.	Minor thigh wound. Foe takes 2 hits per round. +5 hits. Foe is stunned next round.	Medium thigh wound. +6 hits. Foe takes 2 hits per round and is stunned 2 rounds.	Thigh wound. Foe is stunned for 2 rounds. +8 hits. Foe takes 5 hits a round.
61-65	Minor forearm wound. +3hits. Foe takes 2 hits per round and is at -10.	Minor forearm wound. Foe is stunned next rnd, takes 2 hits per rnd and is at -10. +4 hits.	Medium forearm wound. +4 hits. Foe takes 3 hits per round, is at -10, and is stunned next round.	Medium forearm wound. +4 hits. Foe takes 3 hits per round, is at -10, and is stunned next 2 rounds.	Forearm wound. Foe is stunned for 2 rounds. +6 hits. Foe takes 3 hits per round and is at -15.
66	You shatter shoulder in foe's shield arm. Arm is useless. +10 next swing. Foe is stunned 3 rounds. +9 hits, Your initiative.	Shatter elbow in foe's weapon arm. +8 hits. Foe is stunned 4 rounds and cannot parry during first 2 rounds.	You shatter foe's knee. Foe is knocked down. +6 hits. Foe at -90 and is down for 3 rounds. (and cannot parry).	You knock foe out for 6 hours with a strike to side of head. +15 hits. If foe has no helm, you kill him instantly.	Sever foe's weapon arm. +12 hits. Foe expires in 12 rounds, drops immediately. Add +10 to your next swing.
67-70	Slash foe's neck. +6 hits. Foe is stunned for 3 rounds and cannot parry during next round.	Blow to foe's neck area. Foe takes 3 hits per round and fights at -5. Stun foe for 2 rounds. +7 hits.	Slash foe's neck. Foe is stunned 4 rounds and cannot parry during next 2 rounds. +8 hits. +10 next round.	Slash muscle in foe's shoulder area. +5 hits. Foe is stunned 3 rounds, and is at -20. Add +10 to your next swing.	Slash tendons and crush the bone in foe's shield shoulder. Arm useless and foe takes 2 hits per round. Stun foe 4 rounds.
71-75	Slash tendons in foe's lower leg. Foe at -30 and takes 2 hits/round. +4 hits. Stun foe 2 rounds. Poor sucker.	Slash muscle in foe's calf. Foe is stunned for 3 rounds and cannot parry during next round. +6 hits. Foe at -40.	Slash muscle and tendons in foe's lower leg. Foe is stunned for 2 rounds and cannot parry. +7 hits. Foe at -45.	Slash muscle and sever tendons in foe's lower leg. Foe is stunned for 3 rounds and cannot parry for next 2 rounds. Foe is at -50.	Slash foe's lower leg and sever muscle and tendons. Foe at -70. +8 hits. Stun foe 6 rounds.
76-80	Slash foe's upper arm. +5 hits. Foe takes 3 hits per round and is at -25. Foe is stunned and unable to parry 2 rounds.	Slash muscle in foe's shield arm. Foe is at -30 and takes 3 hits/rnd. Stunned and unable to parry for 2 rounds. +6 hits.	Slash muscle and tendons in foe's shield arm. +9 hits. Foe takes 4 hits per round and arm is useless. Foe is stunned 6 rounds.	Slash muscle and tendons in foe's weapon arm. Arm is useless and foe is stunned 4 rounds. Foe cannot parry next 2 rnds. +10 hits.	Slash tendons and break bone in foe's shield arm. Arm is useless. +12 hits. Foe is stunned and unable to parry for next 3 rounds.
81-85	Slash foe in side. +6 hits and a major wound. Foe takes 6 hits/rnd and is stunned 5 rnds. Add +20 to your next swing.	Slash foe in side. +7 hits and a major wound. Foe takes 6 hits per round. Foe is stunned and cannot parry for next 2 rounds.	Strike to foe's side. +8 hits. Foe takes 4 hits per round and is at -20. Foe is stunned and cannot parry for next 2 rounds.	Major abdomenal wound. +10 hits. Foe takes 8 hits/rnd, is stunned for 4 rnds, and is unable to parry for next 2 rnds. Foe at -10.	Sever opponent's hand. +5 hits. Foe is stunned and unable to parry for next 12 rounds. Foe then dies.
86-90	Slash foe in back. +8 hits. Foe is stunned and cannot parry for 2 rounds. Wound yields 2 hits/rnd. Foe at -10.	Stricke to back knocks foe down. Foe is stunned and unable to parry for 3 rounds. +10 hits. Foe takes 3 hits/rnd.	Blast to back breaks bone and knocks foe down. +9 hits and foe at -10. Foe is stunned and unable to parry for 4 rounds.	Sever opponent's hand. +6 hits. Foe is stunned for 6 rounds, unable to parry. Foe then drops and dies 6 rounds later.	Sever foe's leg. +15 hits. Foe drops and lapses into unconsciousness. Foe dies in 9 rounds. Add +10 to your next swing.
91-95	Cut off foe's ear. +3 hits. Foe takes 3 hits per round and hears at -50. Foe is stunned 3 rounds and unable to parry next round.	Strike to foe's hip. +7 hits and foe is stunned 3 rounds. Foe cannot parry next round and fights -20. Add +10 to your next swing.	Sever foe's leg. Foe drops immediately and dies in 6 rounds due to shock and blood loss. +20 hits.	Sever foe's weapon arm. Foe is stunned and unable to parry for next 9 rounds. Foe then dies. +15 hits.	Sever foe's spine. +20 hits. Foe collapses in a second, and is paralyzed from the neck down permanently.
96-99	Slash foe's nose. Minor wound. +2 hits and a permanent scar. Foe takes 2 hits a round and is at -30 Foe stunned 6 rounds.	Strike to foe's head and neck breaks skull and causes massive brain damage. Foe drops and dies in 6 rounds. +20 hits.	Sever foe's shield arm. Foe is stunned, unable to parry for next +18 hits.	Slash foe's side. +20 hits. Foe dies in 3 rounds due to massive internal organ damage. Foe is down and unconscious immediately.	Strike to foe's head destroys brain and makes life difficult for the poor fool. Foe expires in a heap — immediately.
100	Neck strike severs carotid artery and jugular vein. Foe's neck is broken. Foe dies in 1 round of intense agony.	Disembowel foe, killing him instantly. 25% chance your weapon is stuck in opponent during next round.	Destroy foe's eyes. +5 hits and foe is stunned and unable to parry for next 30 rounds.	Impale adversary in heart. +12 hits. Foe dies instantly. Heart is destroyed. 25% chance your weapon is stuck in foe 2 rnds.	Strike to foe's groin area. +10 hits. All vitals are destroyed immediately. Foe is stunned and unable to parry for 12 rounds.

8.1.2 PUNCTURE CRITICAL STRIKE TABLE

	A	B	C	D	E
01-05	Zip.	Glancing blow. No extra damage. +0.	+1 hit.	+2 hits.	+3 hits.
06-10	+1 hit.	+2 hits.	+3 hits.	+4 hits.	Unbalance foe with a nice grazing strike. You gain initiative +5 hits.
11-15	You receive initiative for next round. +1 hit.	Glancing blow to side. +3 hits. You receive initiative next rnd.	Blow to foe's side. +5 hits. You receive initiative next round.	+2 hits Foe must parry for next round.	+3 hits Foe must parry for next round.
16-20	Foe must parry next round. +1 hit.	Blow to side. +2 hits. Foe must parry next round at -10.	Blow across side. Foe must parry next round at -20. +3 hits.	Minor side wound. Foe fights at -10. You have the initiative 1 rnd.	Stun foe for 1 round. Add +20 to your next attack.
21-35	Foe must parry next round. +2 hits. Add +10 to next attack.	Foe must parry next round at -20. +2 hits.	You wound foe along side of chest. Foe is stunned 1 round and takes 1 hit per round..	You wound foe along side of hip. Foe is stunned 1 round and takes 2 hits per round.	Foe receives minor side wound. +2 hits. Foe is at -10. Foe takes 2 hits per round.
36-45	Minor calf wound. Foe receives 1 hit per round.	Minor calf wound. Foe takes 1 hit per round. +2 hits.	Minor calf wound. Foe takes 2 hits per round.	Minor thigh wound. Foe takes 3 hits per round.	Thigh strike. If foe has leg armor, +3 hits. If none, +2 hits, 3 hits/rnd.
46-50	Strike along foe's back. +2 hits. Foe must now parry next round at -30.	Strike along foe's back. Foe is stunned for 1 round and takes 1 hit per round.	Strike across foe's back stuns foe for 2 rounds. Foe takes 1 hit per round.	Strike to foe's lower back. Foe is stunned and unable to parry next round. +6 hits.	Strike to foe's lower back. Foe takes 3 hits/rnd. +5 hits. Foe is stunned and unable to parry during next rnd.
51-55	Strike to foe's chest. Foe must parry next round at -25. Foe takes 2 hits per round.	Minor chest wound. Foe takes 2 hits per round. +3 hits. Foe must parry for next 2 rounds.	Minor chest wound. Foe takes 2 hits per round. +3 hits. Foe is stunned for 2 rounds.	Strike to chest. +5 hits. Foe takes 3 hits per round and fights at -15. Foe must parry next round.	Chest wound. Foe takes 4 hits/rnd. +5 hits. Foe fights at -10. Foe is stunned and unable to parry 1 round.
56-60	Minor thigh wound. Foe takes 2 hits per round. +2 hits. Foe is stunned next round.	Minor thigh wound. Foe takes 2 hits per rounds. +3 hits. Foe is stunned and unable to parry next round.	Minor thigh wound. +5 hits. Foe takes 2 hits per round and is at -10. Foe is stunned for 2 rounds.	Strike to thigh. Foe takes 3 hits per round. Foe is stunned and unable to parry for the next round. +3 hits.	Thigh wound. Foe takes 5 hits per round. +6 hits. Foe is stunned and unable to parry next round.
61-65	Minor forearm wound. +2 hits. Foe takes 2 hits per round. Foe is at -10.	Minor forearm wound. Foe is stunned during next round. +2 hits. Foe is at -10 and takes 2 hits per round.	Forearm wound. Foe takes 2 hits per round and is at -10. +3 hits. Foe is stunned for 2 rounds.	Forearm wound takes 3 hits per round and is at -10. +3 hits. Foe is stunned for 2 rounds.	Forearm wound. Foe takes 3 hits per round and is at -15. +5 hits. Foe is stunned for 2 rounds.
66	Strike through foe's shield shoulder. Arm is useless. Add +10 to your next attack. Foe is stunned for 3 rounds.	Strike shatters elbow in foe's weapon arm. +3 hits. Arm is useless. Foe is stunned 4 rnds and cannot parry for 2 rnds.	Strike shatters foe's knee. Foe is knocked down, is at -90, and stays down for 3 rounds. Foe is unable to parry 2 rounds.	Strike to side of head. Foe is knocked out for 6 hours. +10 hits. If foe has no helm, you kill him.	Strike through both of foe's lungs. Foe drops and passes out. Foe dies in 6 rounds. Add +10 to your next attack.
67-70	Strike along foe's neck. +5 hits. Foe is stunned for 3 rounds and cannot parry next round.	Strike to foe's neck area. Foe takes 3 hits per round and is at -5. Foe is stunned for 2 rounds.	Strike along foe's neck. Foe is stunned for 4 rounds and cannot parry for 2 rounds. Add +15 to your next attack.	Strike foe in shoulder. +3 hits. Foe is stunned and unable to parry for 2 rounds. Foe is at -20.	Strike for is shoulder. Sever muscle and tendons. Arm is useless. Foe takes 3 hits per round. Foe is stunned for 6 rounds.
71-75	Strike lower leg. Tear tendons. Foe is at -25. +3 hits. Foe is stunned and unable to parry next round.	Strike to foe's calf. Slash muscle. Foe is at -40 +3 hits. Foe is stunned and unable to parry for 2 rounds.	Strike to lower leg. Foe is stunned and unable to parry for 2 rounds. +5 hits. Foe is at -50. Slash muscle and tendons.	Strike to lower leg. Foe is at -50. Slash muscle and cartilage. +6 hits. Foe is stunned and unable to parry for 2 rounds.	Strike through lower leg. Foe is stunned and unnable to parry for 3 rnds. Sever muscle. Foe is at -75.
76-80	Strike to foe's upper arm. +3 hits. Foe takes 3 hits per round and is at -25. Foe is stunned for 2 rounds.	Strike through muscle in foe's shield arm. Foe is at -30 and takes 3 hits per round. Foe is stunned for 3 rounds.	Strike foe in shield arm. Tear muscle and tendons. Foe takes 3 hits per round, fights at -25. Foe is stunned 6 rounds.	Strike foe in shield arm. Arm is useless. Foe is stunned for 6 rounds. Foe takes 3 hits per round. +12 hits.	Strike foe is weapon arm, bone is broken. Foe is stunned and unable to parry for 3 rounds. +10 hits.
81-85	Side wound. Foe takes 5 hits per round and is stunned for 6 rounds. Add +20 to your next attack.	Side wound. +6 hits. Foe takes 5 hits per round. Foe is at -25. Foe is stunned and unable to parry for 3 rounds.	Side wound. +6 hits. Foe takes 5 hits per round. Foe is at -25. Foe is stunned and unable to parry for 3 rounds.	Major abdomenal wound. Foe takes 6 hits per round. +10 hits. Foe is stunned and unable to parry for 3 rounds. Foe is at -20.	Strike through foe's back severs a vein. Foe is stunned and unable to parry for 12 rounds. Then dies.
86-90	Strike foe in back. Foe is at -20 and takes 3 hits per round. Foe is stunned and unable to parry 2 rounds.	Strike to back of head. If foe has no helm, he dies. If foe has a helm, +6 hits and foe is down for 2 rounds.	Strike to back of head. If foe has no helm, he dies. If foe has a helm, +6 hits and foe is down for 2 rounds.	Strike through foe's kidneys. Foe drops. +9 hits. Foe dies after 6 rounds of very intense agony. Sad.	Strike through leg severs an artery. Foe drops, lapses into unconsciousness, and dies after 12 rounds.
91-95	Rip off foe's ear. +3 hits. Foe takes 2 hits pr round, hears at -50. Foe is stunned and not able to parry for 2 rounds.	Strike through foe's hip. Foe takes 3 hits per round. +5 hits. Foe is stunned next round. Foe is at -25.	Strike through foe's chest, severs a vein. Foe drops immediately and dies in 9 rounds due to shock and blood loss.	Strike through foe's side destroys a variety of organs. Foe fights normally for 6 rounds then dies.	Sever artery in foe's arm. Foe is stunned for 12 rounds and then dies.
96-99	Strike foe's nose. There is a permanent scar. Foe takes 3 hits/round. Foe is stunned and unable to parry 3 rnds.	Strike through foe's cheek. Foe drops and dies after 9 rounds of incapacity. Add +20 to your next attack.	Strike through foe's neck breaks backbone and severs spine. Foe is paralyzed from the neck down — permanently.	Nail sucker in lower back. Internal bleeding and shock kill foe in 6 rounds. Foe is down and out.	Shot through heart send foe reeling back 10 feet to a spot suitable for dying. Weapon is stuck in reeling foe.
100	Strike through neck. Sever vein and artery. Foe cannot breath. Foe drops and dies of a massive heart failure.	Strike through foe's eye. Foe dies instantly. Add +10 to all friendly attacks within 30 feet next round.	Shot through both ears proves effective. Foe dies instantly. Add +20 to your next 6 round. Pretty shot.	Strike through brain makes life difficult for foe. You have a half round left to act. Add +20 to your next attack.	Strike through foe's eye. Foe dies instantly. Add +25 to our next attack. Carry on.

8.1.3 KRUSH CRITICAL STRIKE TABLE

	A	B	C	D	E
01-05	Zip.	Weak grip. No extra damage.	+1 hit	+2 hits	+3 hits
06-10	+1 hit.	+2 hits.	+3 hits	+4 hits	Glancing blow +6 hits. Foe is slightly unbalanced. You have initiative next round.
11-15	Glancing blow. Foe takes +3 hits. You have the initiative next rnd.	Glanncing blow. +3 hits. You have the initiative next round.	Blow to foe's side. +7 hits. You receive initiative next round.	+5 hits. Foe must parry next round at -10.	+6 hits. Foe is stunned for 1 round. Add +5 to your next swing.
16-20	+2 hits. Foe must parry next round of action.	Blow to foe's side. +4 hits. Foe must parry next round at -10.	Blow to foe's side. +6 hits. Foe must parry next round at -20.	Minor fracture of ribs. +5 hits. Foe fights at -5. You have initiative next round.	Strong blow. Foe is stunned and unable to parry next round. Add +10 to your next swing.
21-35	Foe must parry next round. +3 hits. Add +5 to your next swing.	Foe must parry next round at -20. +4 hits.	You break foe's rib. +5 hits. Foe is stunned during next round. Hard blow to foe's side.	Strike to foe's side. +4 hits. Foe is stunned and unable to parry during next round.	Strike cracks foe's ribs. +6 hits. Foe is at -10. You have initiative next round.
36-45	Bruise foe's calf. +6 hits. You gain the initiative. Foe fights at -5 for next round.	Bruise foe's calf. +6 hits. You gain the initiative. Foe fights at -20 for next 2 rounds.	Bruise foe's calf. +9 hits. You gain the initiative. Foe fights at -25 for next 2 rounds.	Major calf bruise. +10 hits. Foe fights at -10. You have the initiative next round.	Strike to upper leg. Minor fracture. +12 hits. Foe fights at -10. You have the initiative next round.
46-50	Blow to foe's back. +4 hits. Foe must parry next round at -25. Hard, glancing strike.	Blow to foe's back. +6 hits. Foe must parry next round at -25.	Blow to back. +5 hits. Stunned and unable to parry 1 rnd. You have the initiative for 2 rnds.	Hard blow to back. +10 hits. Foe is stunned and unable to parry during next round.	Strike to foe's lower back. +15 hits. Foe is stunned and unable to parry during next round.
51-55	Blow to foe's chest. +5 hits. Foe must parry next round at -25. Foe has a bruised rib.	Blow to foe's chest. +6 hits. Foe must parry for next 2 rounds.	Hard blow to chest. +5 hits. Foe fights at -10. Foe is stunned during next round.	Blow to chest. +10 hits. Foe has a pair of broken ribs and must fight at -15.	Blow to chest. +15 hits. Foe is stunned for 2 rounds. Foe fights -15.
56-60	Strike foe's thigh. +5 hits. Foe is forced to parry next round at -25. Glancing blow.	Strike foe's thigh. +6 hits. Foe has a bruise and is forced to parry 1 round. Foe is at -5.	Strike foe's thigh. +6 hits. Foe is at -5. Add +10 to your next swing. Foe must parry next rnd.	Blow to thigh. Foe is stunned next round. +6 hits. Foe is at -10 and is upset.	Blow to thigh. Foe is stunned and unable to parry next round. +10 hits. Foe is at -10.
61-65	Blow to foe's forearm. +5 hits. Foe is stunned 1rnd. Add +20 to your next swing.	Blow to foe's forearm. Foe is at -10. +9 hits. Foe is stunned during next round.	Disarm foe with a blow to forearm. +8 hits. Foe is stunned during next round.	Blow to forearm. Foe is stunned and unable to parry next round. +10 hits. Foe at -10.	Blow to forearm. Foe drops weapon. Foe is at -15. +10 hits. Foe is stunned for next round.
66	Shatter shoulder in foe's shield arm. Arm is quite useless. Foe is stunned and unable to parry for the next 2 rounds. +8 hits.	Shatter elbow in foe's weapon arm. Arm is useless. Foe drops weapon, and is stunned and unable to parry for 3 rounds.	Shatter foe's knee. +9 hits. Foe is knocked down and is stunned and unable to parry for 3 rounds. Foe at -90.	Blow to side of foe's head. If foe has no helm, you crush his skull. If foe has helm, you knock him out for 4 hours. +20 hits.	Blow to back of neck, crushes backbone and severs spine. +15 hits. Foe dies instantly. Add +10 to your next swing.
67-70	Strike upper chest area. +8 hits. Foe is stunned for 3 rounds and unable to parry during next round.	Strike upper chest area. Foe is stunned and unable to parry for 2 rounds +10 hits. Foe is at -10.	Strike upper chest area. Foe is stunned for 3 rounds and unable to parry during next 2 rounds, +10 hits. Foe is at -10.	Blow to foe's shoulder area. Minor fracture. Foe is at -20. Foe is stunned and unable to parry for 2 rounds.	Blow to foe's shield shoulder. If foe has a shield, it if broken. If foe has no shield, the shoulder is shattered, arm useless.
71-75	Blow to foe's lower leg. Bad bruise. +5 hits. Foe is stunned for 2 rounds and unnable to parry next round. Foe at -20.	Blow bruises foe's calf. Foe is at -35. +10 hits. Foe is stunned 2 rounds and unable to parry next round.	Blow bruises foe's knee. Foe is at -40. +10 hits. Foe is stunned and unable to parry for 2 rounds.	Blow breaks bone in leg. Foe is at -50. +12 hits. Foe is stunned and unable to parry for 2 rounds. Major cartilage damage.	Blow breaks foe's hip. Foe is at -75 and is knocked down. +15 hits. Foe is stunned 3 rounds.
76-80	Blow to foe's shield arm. If foe has a shield, it is broken. If foe has no shield, the arm is badly broken and useless.	Blow to foe's shield arm, shatters wrist. Arm is useless. Foe is stunned for next round. +6 hits.	Blow to foe's weapon arm. Bad bruise. +9 hits. Foe is stunned and unable to parry for next round. Foe is at -50.	Blow breaks foe's weapon arm. Foe is stunned and unable to parry for 1 round. Arm is useless. +8 hits. Tendon damage.	Blow to foe's elbow. +9 hits. Joint is shattered. Arm is useless. Foe is stunned and unable to parry for 2 rounds.
81-85	Blow to foe's side. +10 hits. Foe is stunned and unable to parry for 2 rounds. Foe is at -20.	Blow to foe's side. +12 hits. Foe has broken ribs. Foe is stunned and unable to parry for 2 rounds. Foe is at -25.	Strike to foe's side. Breaks 3 ribs. Foe is at -40. +12 hits. Foe is stunned and unable to parry 3 rounds.	Strike to foe's side +15 hits. Foe is knocked down. Add +10 to your next swing. Foe is stunned and unable to parry 3 rounds.	Catch foe in armpit. +30 hits. Crush foe's ribs and destroy side. Foe drops and dies of nerve and organ damage in 3 rounds.
86-90	Strike Foe in back. +12 hits. Muscle and cartilage. Foe is stunned and unable to parry for 3 rounds. Foe is at -25.	Strike to back knocks foe down and smashes tendons. Foe is stunned and unable to parry for 4 rounds. Foe is at -30.	Blow to back smashes muscle and breaks bone. +20 hits. Foe is at -50. Foe is knocked down and stunned for 6 rounds.	Blow to foe's neck area breaks backbone and destroys spine. +25 hitts. Foe falls and dies in 2 rounds.	Neck strike shatters bone and severs an artery. Foe cannot breath and is inactive for 12 rounds. The poor fool then expires.
91-95	Break foe's nose. Foe is stunned and unable to parry for 3 rnds. +15 hits. Foe fights at -30 for 2 days.	Foe's upper head hit. If no helm, he is in a coma for 3 weeks. If foe has a helm, +20 hits and foe is stunned 12 rnds.	Blow shatters thigh. +9 hits and a compound fracture. Bone severs an artery. Foe dies after 12 rounds of inactivity.	Blow shatters shield arm. Bone severs vein and an artery. Foe dies of shock and blood loss after 9 inactive rounds.	Blast to foe's back. +25 hits. Bone is driven into vital organs and foe is down for 6 rounds ...Then dies, sad.
96-99	Blow to foe's head. If foe has no helm he is dead. If foe has a helm, he is knocked down and stunned 6 rnds. +20 hits.	Blast foe's chest. Send ribcage through heart. Foe drops and dies. Add +20 to your next swing.	Blow to foe's abdomen destroys a variety of organs. The poor fool expires after 6 rounds of inactivity.	Blow to foe's side crushes chest cavity. Foe drops and dies in 3 rounds. Add +25 to your next swing.	Crush foe's skull. +30 hits. Opponent dies immediately. Add +20 to your next swing. You have a half round left to act.
100	Blow to foe's jaw. Drives bone through brain. Foe dies instantly. +50 hits, add +20 to your next swing.	Blow to back of neck paralyzes foe from the shoulders down. +25 hits. Foe is quite stunned.	Strike to forehead. +30 hits. You squash foe's eyes and destroy them. Foe is stunned and is unable to parry 24 rounds.	Blast to foe's chest area. Destroy foe's heart. Foe dies immediately. +25 hits. Fine work.	Crush foe's hip. +35 hits. Opponent is stunned for 2 rounds, active following 4 rounds at -30, then dies of nerve damage.

8.1.4 LARGE CREATURE CRITICAL STRIKE TABLE

	NORMAL	MAGIC	MITHRIL	HOLY ARMS	SLAYING
01-05	+12 hits your weapon breaks. You are upset.	+15 hits you fumble your weapon and must parry next round. Good luck pal.	+18 hits you move poorly and yield the initiative next round.	+20 hits flat blow. Subtract 10 from you next swing.	+5 hits.
06-10	+3 hits.	+4 hits.	+5 hits.	+9 hits.	+10 hits.
11-20	+6 hits.	+8 hits.	+9 hits.	+12 hits.	+15 hits.
21-30	+9 hits.	+10 hits.	+12 hits.	+15 hits.	+20 hits.
31-40	+12 hits.	+15 hits.	+20 hits.	+25 hits.	+30 hits.
41-50	+15 hits.	+18 hits.	+25 hits.	+30 hits.	Light wound. +12 hits. Foe takes 5 hits per rnd and is forced to parry 1 rnd. Add +10 to your next swing.
51-65	+20 hits.	+25 hits.	+30 hits.	Light wound. +10 hits. Foe takes 3 hits per round and is forced to parry next round. You have initiative for 3 rounds.	Hard flat swing. +15 hits and foe is staggered. Foe is stunned and unable to parry for the next round.
66	Well placed strike to foe's neck severs the juglar vein. +15 hits. Foe dies in 6 rounds, and is inactive until then.	Vicious strike to abdomenal region destroys a variety of important organs. Foe drops and dies in 3 rounds. +30 hits.	Strike to foe's heart. +12 hits and foe dies instantly. Add +10 to your next swing. Very clean kill.	Inspired strike that catches foe between the eyes. +20 hits. Foe dies instantly. You have 1/2 a round left to act.	Strike through foe's ear destroys brain. Foe dies immediately. Add +10 to all friends' swings next round.
67-70	+25 hits.	+30 hits.	Light wound. +15 hits. Foe is stunned for 2 rounds and fights at -20. Add +10 to your next swing.	Hard strike. +20 hits. Foe is stunned and unable to parry for 2 rounds. Add +10 to your next swing.	Brutal strike through foe's heart. +20 hits. Foe dies immediately. Add +10 to your next swing.
71-80	+30 hits.	Light wound. +13 hits. Foe is stunned for 3 rounds and is unable to parry for the next round.	Hard blow. +20 hits. Foe is stunned and unable to parry for 2 rounds. Foe takes 3 hits per round due to light wound.	Strike to foe's leg. +9 hits. Foe is stunned and unable to parry for 1 round. Foe is at -10, takes 3 hits per round.	Shatter shoulder in foe's weapon arm. +15 hits. Foe is stunned for 3 rounds. Arm is quite useless.
81-90	Strong blast staggers foe. +20 hits. Foe is stunned and unable to parry for 2 rounds. Add +5 to next swing.	Hard blow stuns foe for 3 rounds. Foe is unable to parry next round. +22 hits. Add +10 to your next swing.	Strike to foe's leg. +15 hits. Foe is stunned for 2 rounds and fights at -20. Foe takes 2 hits per round.	Strike to foe's forehead. If foe has no helm, you kill him. if foe has a helm, you knock him out. +30 hits.	Strike to foe's chest destroys the heart. +25 hits. Foe dies immediately. Add +15 to your next swing.
91-95	Fine strike to foe's leg yields +18 hits. Foe takes 5 hits per round and is at -10. Foe is stunned for 3 rounds.	Strike foe in face. +5 hits. Foe takes 3 hits per round and fights at -25. Add +20 to your next swing.	Strike foe in head. +30 hits and foe is knocked out. Add +10 to all friendly swings next round. Fine shot.	Cruel strike to foe's chest severs a vein. Foe is stunned for 2 rounds, falls into unconsciousness, then dies after 6 rounds.	Sever an artery in foe's leg. +10 hits. Foe dies after 12 sad rounds of inactivity.
96-98	Strike foe in heart. Foe dies instantly and falls upon you. You then take 20 hits and are pinned for 6 rounds.	Strike foe through both lungs. Foe dies in 3 rounds. Your weapon is stuck in foe for 12 rounds. +25 hits.	Strike foe in nose and drive bone into brain. Foe dies instantly and you have a half round to act. Clean kill.	Strike through foe's ear drops sucker. +15 hits. Foe dies next rnd. Add +25 to your next swing.	Shatter foe's skull. +30 hits. Foe dies instantly. A piece of foe's skull sails straight back to 10 feet. Not pretty.
99-100	Strike through foe's lungs. Foe falls down and dies after 6 rnds. +24 hits. Add +20 to all friendly swings next rnd.	Hard but flat strike. Foe takes +35 hits, is stunned for 1 rnd, and is unable to parry. Your weapon breaks in half.	Strike foe in neck. +20 hits. Foe is stunned and unable to parry for 6 rounds -- then dies. Your weapon is stuck 2 rounds.	Blind for cleanly. Foe is stunned and unable to parry for 2 rounds. +5 hits. Foe is at -100. Precision surgery.	Strike foe through cheek. Foe dies immediately. +15 hits. Unfortunately, your weapon is stuck in the bone for 2 rounds.
101-150	Awesome strike. +50 hits. Foe is stunned for 3 rounds and is unable to parry. Foe fights at -25.	Strike to side of foe's head knocks foe out. +20 hits. Foe is out for at least 3 hours. Add +10 to your next swing.	Strike to foe's chin shatters jaw and knocks foe out. +60 hits and foe is in a coma foe 30 days.	Shatter foe's knee. Foe takes 2 hits per round, fights at -30, and is stunned for 3 rounds.	Sever a vein in foe's forelimb. Foe is stunned and unable to parry for 6 rounds. Foe then falls dead. +20 hits.
151-175	Strike drives bone into kidneys and liver. Foe falls, taking 40 hits. Foe then dies...pity.	Strike drives shattered remnants of foe's jaw into the brain. Foe dies instantly. You have 1/2 round left to act.	Strike to foe's abdomen destroys a variety of important organs. Foe drops and dies after 6 rounds. +30 hits.	Smooth strike through foe's cheek. +10 hits. Foe dies immediately. You have a half round left in which to act.	Strike through foe's neck. Foe dies instantly. +25 hits. Add +10 to your next swing. Fine piece of work.
176-200	Strike to bowels destroys foe's adomenal areas. Foe falls and dies after 12 rounds. +35 hits. Add +15 to your next swing.	Strike through foe's ear kills foe with clean ease. +10 hits. Add +20 to the swings of all nearby allies next round.	Strike severs and artery in foe's leg. Foe fights at - 20 for 2 rnds, then drops. Foe is then inactive and dies after 6 rounds.	Strike severs foe's spine. +20 hits. Foe drops immediately and is paralyzed from the waist down.	Strike foe through the eye. Foe dies immediately. +15 hits. Add 20 to your next swing. You have a half round to act.
201-250	Blow to foe's forelimb severs a vein and stuns foe for 6 rounds. Foe drops on round 7, passes out, then dies. +15 hits.	Strike severs foe's spine. +15 hits. Foe is paralyzed from the neck down. Sadly, your weapon breaks in half.	Strike to foe's heart. +20 hits foe dies instantly. Add +15 to all friendly swings for the next 2 rounds of action.	Strike to foe's heart. +25 hits. Foe dies. Add +20 to all friendly swings for the next 3 rounds of action.	Strike carries all the way through foe's head. Foe dies instantly. The action carries onto any nearby opponent (this round.)
251+	Extremely hard but flat swing. +35 hits. Foe is stunned and unable to parry for 3 rounds. Unfortunately, you knock yourself out.	Strike through foe's eye proves fatal. Foe dies immmediately. +20 hits. Add +25 to your next swing.	Blind foe with vicious crossing strike. Foe is at -100 and is upset. +10 hits and foe is quite stunned for 6 rounds.	Strike through foe's ribs punctures a lung. +30 hits. Foe is knocked out. Your weapon is stuck for 6 rounds. Good luck.	Blind foe with precision strike across eyes. +6 hits. Foe is stunned and unable to parry for 24 rounds.

8.1.5 SUPER LARGE CREATURE CRITICAL STRIKE TABLE

	NORMAL	MAGIC	MITHRIL	HOLY ARMS	SLAYING
01-05	+10 hits, but your weapon breaks in half. Shoddy workmanship.	+10 hits, but you drop your weapon and it will take 2 rnds to get it back. Bum luck buddy.	+10 hits, but you fumble your weapon for remainder of round. You are stunned next round.	+10 hits, but you fumble your weapon for remainder of round. You must parry next round... at -5.	+10 hits, but you must parry next round.
06-10	+2 hits.	+3 hits.	+4 hits.	+6 hits.	+8 hits.
11-20	+3 hits.	+4 hits.	+5 hits.	+8 hits.	+10 hits.
21-30	+4 hits.	+5 hits.	+6 hits.	+10 hits.	+12 hits.
31-40	+5 hits.	+6 hits.	+7 hits.	+12 hits.	+15 hits.
41-50	+6 hits.	+7 hits.	+8 hits.	+15 hits.	+18 hits.
51-65	+7 hits.	+8 hits.	+9 hits.	+18 hits.	+20 hits.
66	+20 hits.	Blow gives foe light wound. +12 hits. Foe takes 3 hits for round and fights -10. Your weapon breaks.	Blow gives foe light wound. +15 hits foe takes 5 hits per round, fights -10, and yields initiative next round.	Heavy wound. +20 hits. Foe is stunned and unable to parry next round. Foe fights -15 and takes 10 hits per round.	Strike foe's heart and kill sucker. Add +20 to your next swing you are, however, covered with foe's blood. +50 hits.
67-70	+8 hits.	+9 hits.	+10 hits.	+20 hits.	Heavy blow breaks bones in foe's upper body. +30 hits. Foe is stunned and unable to parry for 2 rounds. Flat strike.
71-80	+9 hits.	+10 hits.	+15 hits.	Light wound. +13 hits. Foe takes 5 hits per round, fights -10, and yields the initiative. Add +10 to your next swing.	Hard blow. +24 hits and foe fights at -20. Foe is stunned for 3 rounds and unable to parry. Foe takes 5 hits per round.
81-90	+10 hits.	+15 hits.	+20 hits.	Light wound. +12 hits. Foe takes 4 hits per round and must parry next round. Add +20 to your next round.	Heavy wound. Foe is stunned and unable to parry for 3 rnds. Foe takes 20 hits per round and fights at -25. +25 hits.
91-95	+15 hits.	+20 hits.	Light wound. +12 hits. Foe takes 4 hits per round and you have the initiative next 2 rounds. Add +10 next swing.	Hard blow. +25 hits. Foe is stunned for 2 rounds and is unable to parry next round. Foe takes 3 hits per round.	Strike to foe's neck severs a variety of blood vessels and knocks foe down. Foe expires in 3 rounds due to shock. +35 hits. Nice...
96-98	Blow severs vein and artery. Foe is stunned for 12 rounds, drops, then dies. Awesome.	Massive blow to neck crushes bone and breaks spine. Foe dies in 1 round, but drops instantly. Add +25 to next swing.	Blow to lower skull area kills foe instantly. Foe staggers for 1 round before dropping. Add +20 to your next swing.	You cut foe's skull in half. Weapon is stuck in carnage for 6 rounds. Add +10 to all friendly swings for 6 rounds.	Strike drives bone through Foe's heart. Foe dies instantly, but your weapon is stuck in foe for 12 rounds. +40 hits.
99-100	Blow shatters bone. +30 hits and 10 hits per round due to compound fracture. Foe is at -25.	Strike foe in leg and sever vein. +25 hits. Foe drops in 2 rounds and dies. Foe can fight in the interim.	Crush bones in Foe's neck. 50% chance foe is paralyzed from neck down. 50% chance that foe is killed. You have a half round left to act.	Strike through heart kills foe. +20 hits. 25% chance foe falls on you out of spite.	Catch foe between the eyes and shatter the skull. Foe dies instantly. You have a half round to act. Add +25 to your next swing.
101-150	Light wound. +12 hits. Foe bleeds at 1 hit per round. Add +10 to your next swing.	Light wound. +13 hits and foe must parry next round. Foe takes 2 hits per round. Add +20 to your next swing.	Hard blow. +30 hits. Foe is stunned for 3 rounds and is unable to parry during next round. Add +10 to your next swing.	Serious compound fracture. +30 hits and foe is stunned, unable to parry, for 2 rounds.	Strike foe through leg and sever vein. Foe is stunned and unable to parry for 6 rounds. Foe then dies. +20 hits.
151-175	Blow cuts muscle and causes light wound. +20 hits. Foe is at -20 and takes 5 hits per round.	Blow stuns foe for 1 round and foe is unable to parry. +25 hits. Foe is at -20 and is quite upset.	Knock foe down. +25 hits. Foe is down and unable to parry for next 2 rounds. Add +10 to your next swing.	Knock foe down with a vicious blow. +40 hits. 50% chance of coma -- 50% chance foe is down and unable to parry 6 rounds.	Awesome blow knocks foe down. Foe breaks back and neck and suffocates in 12 rounds. +25 hits. Add +20 to your next swing.
176-200	Blow cuts tendons. +15 hits and Foe fights -25. Add +20 to your next swing.	Knock foe down. +20 hits. Foe is down for 2 rounds and unable to parry. Add +25 to your next swing.	Heavy wound. +28 hits and foe is at -40. Foe is unable to parry and stunned for next 3 rounds. Foe takes 10 hits per round.	Strike severs vast number of blood vessels. +25 hits and foe is stunned, unable to parry, for 9 rounds. Foe is at - 25.	Strike through foe's eye hits home and rips through brain. +24 hits. Foe drops immediately and dies. Fine blast.
201-250	Blow shatters bone. +35 hits. Foe takes 10 hits per round, is stunned 2 rounds, and fights at -30.	Heavy wound. +35 hits and foe is stunned for 3 rounds, unable to parry. Foe fights at -40 and takes 10 hits per round.	Vicious blow to foe's leg. Foe takes 12 hits per round and fights at -50. Foe is stunned and unable to parry for 6 rounds. +30 hits.	Strike through foe's ear. +15 hits. Foe dies of massive brain damage in 3 rounds. Add +20 to your next swing.	Magnificent abdomenal strike drops foe in a heap. +35 hits and foe dies of shock in 4 rounds. You are stunned next round.
251+	Foe is blinded. +20 hits and foe fights at -100. Foe is stunned and unable to parry for 6 rounds.	Strike through foe's eye. You kill foe instantly. Add +20 to your next swing. 20% chance your weapon is stuck in foe for 3 rounds.	Awe inspiring strike drives bone through both lungs. Foe takes 100 hits, falls in a coma, and dies in 18 rounds.	Incredible strike severs an artery and vein and breaks foe's spine. +50 hits, falls, and dies after 2 rounds of agony.	Strike through side kills foe after a chain reaction of broken bones splinter. You are covered with foe's blood. +100 hits.

11.3.1 GRAPPLING CRITICAL STRIKE TABLE

	A	B	C	D	E
01-05	Weak grip. No bonus.	Indecision. An opportunity lost.	+1 hit.	+2 hits.	+3hits.
06-10	+1 hit.	+2 hits.	+3 hits.	+4 hits.	Glancing attack. You have the initiative next round. +5 hits
11-15	Glancing attack. No extra damage, but you have the initiative next rnd. Practice.	Passing strike. You have the initiative next round. +2 hits.	Grazing side strike. You receive the initiative next round. +4 hits.	Glancing blow. You receive the initiative next round. +6 hits.	Lame attack, but foe must parry next round. +6 hiits.
16-20	Foe is free, but you have the initiative next round. +3 hits.	Foe fends off attack. But is forced to parry 1 rnd. +2 hits.	Foe recovers but is forced to parry next round. +4 hits.	Side strike unbalances foe. You have initiative for 2 rnds. +5 hits.	Strong, passing blow. Foe is stunned for 1 round. +3 hits
21-35	Grazing hip strike. You have the initiative next round. +5 hits.	Attack has punch, but nothing more. Foe must parry next round at -20.	Glancing attack. Foe is stunned for 1 round. +2 hits.	Hard but misplaced strike. Foe eludes grip but is stunned for 1 round. +3 hits.	Disjointed attack and a little luck allow foe to escape grasp. Foe is stunned for 1 rnd. You have initiative 2 rnds.
36-45	Blow to lower back. Foe must parry next round.	Unbalance foe. +4 hits. Foe must parry next round. You have initiative for 2 rounds.	Flailing attack. Foe is stunned for 1 round and must parry the following round.	Strike to foe's shield arm. If foe has shield, +3 hits. If not, arm is caught for 6 rounds (and immobile), and foe stunned 3 rnds.	Attack to upper leg. Foe is spun about and breaks loose, but is stunned and unable to parry 1 round.
46-50	Passing hip strike. Foe must parry next round at -20. +3 hits.	Blow to chest stuns foe for 1 round. +5 hits.	Your attack produces a weak grasp around foe's waist. Foe is at -25 for 3 rounds.	Attack yields weak hold around foe's chest. Foe is at -30 for 3 rnds. You have initiative 4 rnds.	Attack produces a hold around foe's leg. Foe slips away, but is stunned 2 rnds and unable to parry next rnd.
51-55	Slightly unbalancing blow to chest. Foe must parry next round.You have initiative for 2 rounds.	Blow to back stuns foe for 1 round. +7 hits.	Attack yields slipping grasp around foe's leg. Foe is stunned and unable to parry for 1 round.	Attack results in slipping grip around foe's waist. Foe is at -50 for 3 rounds.	Foe breaks free of hold around shield arm. Foe is stunned for 2 rounds and unable to parry next round. +5 hits.
56-60	Glancing back blow. Foe must parry next round at -25. You have initiative 2 rounds.	Unbalancing strike. Foe spins free but is stunned for 1 rnd. Must parry the following rnd.	Foe breaks free of hold around thigh, but is stunned and unable to parry 1 round. +3 hits.	Attack produces hold around leg. Grip is slipping but foe stunned 3 rounds. +6 hits.	Grasp around foe's leg. Foe is stunned and unable to parry 1 round and is at -25 the following 3 rounds.
61-65	Blow to shoulder. Foe is stunned 1 round. +3 hits.	Slipping grasp around foe's waist is weak. Foe is stunned for 2 rounds.	Grasp around foe's chest. Foe is at -50 for 3 rounds. +3 hits.	Grasp around foe's chest. Foe is stunned and unable to parry for 1 round and is at -20 for the following 2 rounds.	Attack to foe's shield arm. If foe has shield, +6 hits. If not, stunned and unable to parry for 3 rnds. +7 hits.
66	Grasp around weapon arm disarms foe. +2 hits. Foe is stunned for 2 rounds.	Grasp around weapon arm disarms foe and sprains his wrist. Foe is stunned 2 rounds, and fights at -25.	Grasp around both of foe's legs. Foe slips away, but is knocked down and prone for 1 round. +5 hits.	Grasp around leg knocks foe down. Tight grip. Foe is prone and immobile 2 rounds. +6 hits.	Grasp foe around neck and knock him down. Foe has torn neck muscles, is at -20. Foe is prone and immobile for 3 rounds.
67-70	Passing chest strike. Foe eludes entanglement, but must parry next two rounds at -20.	Entangle foe's leg. +4 hits. Foe is stunned and unable to parry for 1 round.	Entangle shield arm. If foe has shield, he is at -50 until he drops it. If not, foe is at -50.	Entangle leg. Foe is stunned for 2 rounds and unable to parry next round. +7 hits.	Entangle weapon arm. Stunned and unable to parry for 2 rounds, and at -75 round following.
71-75	Attack results in an uneasy hold on foe's midsection. Foe is at -50 for 2 rounds. +5 hits.	Attack yields a weak hold around foe's lower chest. Foe is at -50 for 3 rounds. +4 hits.	Attack results in loose grasp on foe's midsection. Foe is stunned for 2 rounds and is at -50 for the following 3 rounds.	Attack yields loose hold around foe's midsection. Foe is stunned and unable to parry 1 round and is at -70 the following 3 rounds.	Entangle foe's leg. Foe is knocked down, and stunned and unable to parry for 2 rounds. +9 hits.
76-80	Unfirm hold on foe's midsection. For the next 3 rounds foe is at -50 and you have the initiative.	Untangle shield arm. If foe has shield, he is at -30 until he drops it. If not, foe is at -40.	Entangle weapon arm. Foe is stunned and unable to parry for 2 rounds, and is at -50 during the following round.	Entangle foe's weapon arm. Foe hangs onto weapon, but the arm is immobilized. +3 hits.	Grapple weapon arm. Foe is disarmed and is left stunned for 3 rounds. Torn ligaments and pulled muscle leave foe at -40.
81-85	Grasp foe's leg. Foe breaks free but is stunned for 2 rounds. +3 hits. You have initiative 6 rounds.	Infirm grasp on foe's midsection. For the next 6 rounds foe is at -50 and you have the initiative.	Grasp around foe's chest breaks rib and leaves foe stunned and unable to parry for 3 rounds. Foe fights at -5.	Entangle foe's leg. Foe is knocked down, stunned,disarmed, and unable to parry 2 rounds. Fall breaks shield arm.	Entangle both of foe's arms and pin them to his chest. Foe cannot move his arms and has mobility reduced by -75.
86-90	Attack to foe's shield arm. If foe has shield, he must parry next round. If not, arm is immobilized and foe is at -50.	Entangle foe's leg. Foe is knocked down and is stunned and unable to parry for 2 rnds. Pulled muscle leaves foe at -10.	Entangle foe's foot. Foe stumbles, falls, and breaks shoulder. +8 hits. Foe is stunned 6 rnds and fights at -30.	Tie up both of foe's arms so they are immobile. Foe is stunned for 9 rounds and cannot fight. +6 hits.	Entangle foe's foot. Foe stumbles, falls, breaks weapon on impact, and is stunned 2 rounds. If no chest armor, roll "D" crush crit.
91-95	Entangle foe's leg. Foe is knocked down. Stunned and unable to parry for 2 rounds. +3 hits.	Both of foe's legs are tied up. Foe is at -25, downed, disarmed and stunned and unable to parry for 2 rounds.	Pin both of foe's arms to chest. Foe is stunned and unable to parry 44 rounds, then fights at -95.	Entangle and completely immobilize foe's legs. Foe falls and is left stunned and unable to parry for 30 rounds. +10 hits.	Wrap up both of foe's legs. Foe tumbles to ground and is knocked out. Foe is at -95 due to 2 broken arms and a broken ankle. +20 hits.
96-99	Tie foe up completely. Foe is entirely immobilized for 12 rounds, and is at -60 for the following 3 rnds. +7 hits.	Attack completely entangles and immobilizes foe. Broken leg leaves foe at -40. The pitiful creature is left prone but conscious.	Entangle and completely immobilize foe's legs. Foe falls, is disarmed, breaks weapon arm, and is knocked out. +20 hits.	Grapple foe's neck. If foe has neck armor, he is left disarmed, and stunned and unable to parry for 3 rounds. If not, he dies in 6 rnds.	Attack results in strangling hold. Foe is unable to break free and dies after 9 rounds of amazingly helpless struggling. Grim.
100	Both of foe's legs are entangled. Foe is downed and knocked out.+9 hits. Add +20 to your next roll.	Attack yields vicious hold around foe's neck. Foe is knocked out. Spained neck leaves foe at -90.	Grapple foe's neck. If he has neck armor, he is at -75 due to a neck sprain and stunned for 3 rnds. If not, he dies of broken neck.	Grapple foe's head. If foe has helm, he is stunned and unable to parry for 9 rounds. If not, foe falls into coma due to fracture.	Crush foe's windpipe. Foe dies instantly due to massive shock and savage asphyxiation. Add +25 to your next roll.

11.3.2 MARTIAL ARTS STRIKING CRITICAL STRIKE TABLE

	A	B	C	D	E
01-05	Sorry.	Fine artistry, but no extra damage.	+1 hit.	+2 hits.	+3 hits.
06-10	+1 hits.	+2 hits.	+3 hits.	+4 hits.	Glancing strike makes foe respect you a little more. +5 hits.
11-15	Weak strike, but you gain the initiative. +3 hits.	Mild blow. You gain the initiative next round. +4 hits.	Mild strike. You have the initiative next round. +5 hits.	Kick to foe's side yields +6 hits. You have the initiative next round.	Moderate strike stuns foe for 1 round. +7 hits.
16-20	Kick to foe's side yields +4 hits and you have the initiative next round.	Side strike. Foe loses initiative next 2 rounds. +5 hits.	Side strike forces foe to parry next round. +6 hits.	Side strike forces foe to parry at -10 next round. +8 hits.	Side strike cracks foe's ribs and stuns foe for 1 round. +5 hits. Foe is at -10.
21-35	Light,but well-placed strike forces foe to parry 1 round. +5 hits.	Strong, but poorly aimed strike forces foe to parry next round. +6 hits.	Kick foe in ribs and stun him for 1 round. +6 hits.	Side strike. Foe is stunned next round and loses initiative for 3 rounds. +2 hits.	Fine side strike cracks 3 ribs. Foe is at -20. +6 hits.
36-45	Mild chest strike forces foe to parry next round at -10. +6 hits.	Chest strike. Foe must parry next round at -20. +7 hits.	Clever fake yields fine but light chest strike. Foe is stunned 1 round. +8 hits.	Chest strike. Foe is stunned and unable to parry next round. +5 hits.	Back strike stuns foe 1 round. You have a clear shot to foe's rear next round.
46-50	Acrobatic move forces foe to parry next round at -25. +6 hits.	Glancing kick to foe's back. Foe is stunned 1 round. +5 hits.	Strike to foe's back. Foe is stunned and unable to parry for 1 round.	Chest strike. Foe is stunned for 2 rounds. Broken ribs. Foe is at -10, +3 hits.	Chest strike. Foe is stunned 2 rounds and unable to parry 1 round. +5 hits.
51-55	Strike to hip stuns foe for 1 round. +3 hits.	Strike to foe's chest. Stuns him for 1 round. +6 hits.	Side strike. Foe is stunned and unable to parry next round. Add +20 next attack.	Upper leg strike causes deep bruise. Foe operates at -25. +6 hits.	Hip strike spins foe. +5 hits. Foe stunned for 3 rounds.
56-60	Strike to foe's lower chest stuns foe for 1 round. +5 hits.	Back strike. Foe is stunned for 2 rounds. +3 hits.	Strong wheel kick sends foe 10 feet in any desired direction. Foe is stunned 2 rounds. +8 hits.	Back strike. Foe is stunned for 3 rounds. +4 hits.	Chest strike. Foe is stunned 2 rounds, unable to parry next round and operates at -10.
61-65	Blow to top of foe's foot is slightly misplaced but quick. Foe operates at -20 +5 hits.	Strike to back of lower leg. Foe is stunned for 2 rounds. +7 hits.	Upper leg strike. Foe has deep bruise and operates at -25. +5 hits.	Blow to nerve in upper leg. Foe is stunned 2 rounds and operates at -25 for 6 rounds.	Forearm strike cleanly disarms foe. +3 hits.
66	Strike to Achilles tendon. Vicious bruise. Foe is at -50. +7 hits and foe stunned 2 rounds.	Kick to foe's head sprains neck and fractures jaw. Foe is stunned 9 rounds, operates at -50.	Knife hand strike breaks foe's weapon arm, leaving it useless. Follow-up punch to solar plexus knocks foe out.	Superb move. Break foe's weapon. Foe is stunned for 3 rounds. Add +20 next roll.	Simultaneous open palm strikes destroy foe's hearing and balance. Foe at -95. He is stunned 24 rounds.
67-70	Weak spear hand stuns foe for 2 rounds. +2 hits.	Spear hand to foe's chest. Foe is stunned 3 rounds.	Strong knife hand to upper portion of foe's shield arm. Arm is broken and useless.	Strike to top of foe's foot. Foe is stunned and unable to parry for 2 rounds.	Elbow to solar plexus and back fist to face drops foe. Foe stunned 3 rnds,and unable to parry 2 rnds.
71-75	Knife hand, spear hand combination. Foe must roll on fumble table and is stunned 1 round.	Strike to foe's weapon arm. Deep bruise. Foe is at -20. +6 hits. Foe stunned 2 rounds.	Strike to back of lower leg. Foe is stunned and unable to parry for 2 rounds.	Knife hand strike breaks foe's collarbone. Foe is stunned and unable to parry 2 rounds, acts at -25.	Heel kick breaks bone is foe's foot. Foe is at -50. +5 hits. Fool stunned for 3 rounds.
76-80	Kick to foe's shield arm. If foe has shield, it is broken.If not, arm is useless and +6 hits.	Blow to back of foe's knee damages tendons. Foe is stunned 2 rounds and operates at -25.	Kick disarms foe and stuns him for 1 round. Foe fights at -10 due to cartilage damage.	Striike to area behind foe's knee. Tendon and cartilage damage. Foe is at -75.	Front kick to midsection doubles foe over. You follow with knee strike which breaks foe's nose and knocks him out.
81-85	Kick to foe's weapon arm disarms him. +3 hits.	Kick foe's weapon 5 feet away and break 2 fingers. Foe stunned 2 rounds and fights at -20.	Heel kick breaks bone in foe's foot. Foe is at -50; he is also stunned and unable to parry for 2 rounds.	Kick breaks foe's leg. Foe is stunned and unable to parry 2 rounds and operates at -75. +5 hits.	Strike to knee shatters joint. Foe drops and is stunned and unable to parry 6 rounds. Foe is at -80. +6 hits.
86-90	Fluid move followed by a leaping kick to foe's back knocks foe down and stuns him 3 rounds.	Wheel kick knocks foe flat. Smash tendons and tear muscle. Foe is at -30. He is also stunned 9 rounds.	Strike to leg severs Achilles tendon and drops foe. +10 hits. Foe stunned 9 rounds, acts at -80.	Open-handed blow to foe's adam's apple (neck) crushes windpipe. Foe dies in 18 rounds - shock and asphyxiation.	Roundhouse kick hits kidney drops foe. Your follow-up knife hand snaps foe's neck. He is knocked out, dies in 9 rounds.
91-95	Strike to nerve in upper leg. +8 hits. Foe stunned and unable to parry for 2 rounds, and operates at -40 for 6 rnds.	Strike to foe's knee shatters joint. Foe drops, is at -85. He is stunned and unable to parry 4 rounds.	Flying kick to foe's back. You knock foe down, disarm him, and leave him stunned and unable to parry for 12 rounds.	Jab to foe's eyes blinds him. Crescent kick sends foe 10 feet to right or left. Sucker is at -100. He is stunned 10 rounds.	Strike to stomach destroys a variety of organs. Foe drops helplessly and dies in 12 rounds. Add +10 to your next round.
96-99	A chop deflects foe's attack, and a follow-up strike knocks him down. Foe stunned and unable to parry for 3 rounds.	Roundhouse kick knocks foe out and fractures collarbone. Foe has sprained neck and shoulder.	Kick to solar plexus drops foe and leaves him stunned and unable to parry 30 rounds. +30 hits.	Brutal head kick flips foe over onto his head. Skull fracture is minor but concussion severe. Foe dies of hemorrhage in 9 rounds.	Double palmstrike to foe's nose breaks cartilage and drives bone into brain. Foe drops helplessly and dies in 6 rounds.
100	Gooseneck strike. Foe's inner ear ruptured. He hears at -50, operates at -75. Foe is knocked out by follow-up strike.	Knife hand strike to foe's weapon arm breaks bone. Kick to lower back breaks backbone, leaving foe paralyzed from waist down.	Sweep lays foe out and heel strike to foe's sternum collapses the ribcage. Foe is helpless and dies in 4 rounds.	Awesome spear hand strike finds seam, penetrates solar plexus and ruptures the heart. Foe dies instantly.	Kick disarms foe. A follow-up chop snaps his neck and subsequent flip sends foe 5 feet in any desired direction. Foe dies.

11.3.3 MARTIAL ARTS SWEEPS & THROWS CRITICAL STRIKE TABLE

	A	B	C	D	E
01-05	Acrobatic, but no extra damage. +0 hits.	Shoddy follow through. +0 hits.	+1 hit	+2 hits	+3 hits
06-10	+1 hit.	+1 hit.	+2 hits	+3 hits	Unbalance foe. You have initiative next round. +4 hits.
11-15	You have initiative next round. +1 hit.	Foe takes 3 extra hits and you have the initiatiive next round.	You have the initiative next round. Add +20 to your next attack. Foe is confused.	Foe must parry next round. +4 hits.	Stun foe with your fine moves. Add +10 to next attack. Foe is stunned 1 round.
16-20	Foe must parry next round. +2 hits.	Dazzle foe. He must parry next round at -10.	Foe unbalanced and must parry next round at -20. +3 hits.	Foe is stunned for 1 round. +4 hits.	Sweep staggers foe. +2 hits. Foe is stunned and unable to parry 1 round.
21-35	Sweep forces foe to parry next round at -10. +2 hits.	Sweep unbalances foe. +3 hits. Foe must parry next round at -20.	Sweep stuns foe for 1 round. +4 hits.	Sweep sends foe to his knees. Foe is stunned and unable to parry for 1 round. +4 hits.	Sweep downs foe. Foe is stunned for 2 rounds.
36-45	Sweep staggers foe. Foe must parry next round at -20. +3 hits.	Sweep bruises foe's leg. For operates at -25 for 3 rounds. +4 hits.	Sweep bruises foe's leg. Foe fights at -10. You have the initiative next round.	Sweep bruises foe's calf. Foe operates at -20. +5 hits.	Sweep drops foe and bruises thigh. Foe is stunned 1 round. +5 hits. Foe is at -20.
46-50	Sweep forces foe to parry next round at -25. +4 hits.	Sweep stuns foe for 1 round. +5 hits.	Sweep downs foe. +4 hits. Foe is stunned for 2 rounds while trying to rally.	Sweep drops foe. +5 hits. Foe is stunned and unable to parry for 1 round.	Foe slips to his knees. +7 hits. Foe is stunned for 2 rounds and is unable to parry next round.
51-55	Sweep drives foe back 3 feet. Foe must parry next round at -30. +5 hits.	Throw knocks wind out of foe, and he is stunned for 1 round. +6 hits.	Throw stuns foe for 2 rounds. +6 hits.	Throw breaks 3 of foe's ribs. Foe is stunned for 1 round and operates at -20. +6 hits.	Throw drops foe. +8 hits. Foe is stunned for 3 rounds.
56-60	Throw stuns foe for 1 round. +6 hits.	Throw stuns foe for 1 round and sprains a finger on his weapon hand. Foe is at -10.	Sweep knocks foe back 5 feet. Foe is stunned and unable to parry for 1 round.	Sweep nearly knocks foe down. Foe is stunned and unable to parry for 1 round. +7 hits.	Surprising sweep sends foe reeling. Foe is stunned for 3 rounds. +9 hits.
61-65	Throw downs foe, but there is a good recovery. Foe is stunned for 1 round. +7 hits.	Throw pulls muscle in foe's weapon arm. Foe is stunned for 1 round. +3 hits. Foe is at -20.	Throw disarms foe. +3 hits and foe is stunned for 1 round. If you want to run, the time is now.	Throw disarms foe and leaves him stunned for 2 rounds.	Fine throw. Foe lands on his weapon arm, is disarmed, and is stunned for 3 rounds.
66	Throw dislocates foe's shield shoulder. Foe is stunned and unable to parry 3 rounds, and is -50.	Nifty throw. You have foe pinned, on his face, and in an arm lock. +9 hits. Foe is disarmed and immobilized.	Sweep shatters foe's knee. Foe is stunned and unable to parry 4 rounds, operates -80.	Smooth throw. Foe lands on his head. If foe has helm, he is knocked out. If not, he is paralyzed from the waist down.	Perfect toss sends foe flying over your shoulder and 10 feet. Foe dies on impact. Add +10 next roll.
67-70	Hard, but unsmooth throw stuns foe for 2 rounds. +7 hits.	Strong throw stuns foe for 2 rounds. You have the initiative for 6 rounds. +8 hits.	Foe is knocked back 5 feet and has a bruised chest muscle. Foe is stunned 2 rounds, is -10.	Throw drops foe on his shield shoulder. Breaks arm and collar bone. +5 hits.	Foe lands on shield arm. If foe has shield, +10 hits and shield is broken. If not, foe's arm shattered. +20 hits.
71-75	Fall bruises foe's thigh. Foe is stunned and unable to parry 1 rnd. +2 hits. Foe is at -5.	Fall tears ligament in leg. Foe is at -10. +5 hits. Foe stunned and unable to parry for 1 rnd.	Fall pulls muscle in foe's leg. Foe stunned 2 rnds and unable to parry next rnd. Operates at -25.	Foe falls and breaks leg. Minor fracture, but foe operates at -30. Poor fool stunned for 3 rounds.	Foe falls and breaks his hip. Mild fracture, foe is at -40. He is stunned and unable to parry 2 rounds.
76-80	Foe lands on shield arm. If foe has shield, it is broken. If not, foe's arm is sprained, he is at -10, and he is stunned for 2 rounds.	Foe breaks fall with his weapon hand and sprains 2 fingers. Foe is at -25 and is stunned for 2 rounds.	Foe falls and dislocates shield shoulder. +6 hits. Foe is at -40 and must parry for 6 rounds.	Throw puts foe on back an breaks shoulder blade. Foe is at -20. +9 hits. Foe stunned and unable to parry 2 rounds.	Throw sends foe down on his elbow. Joint shattered and arm is useless. Foe is stunned 4 rounds.
81-85	Sweep unbalances foe. +3 hits. Foe is stunned for 3 rounds. Add +25 to your next round.	Sweep knocks foe 10 feet to side. Foe stunned and unable to parry 2 rounds. +9 hits.	Sweep staggers foe. +7 hits. Foe is stunned and unable to parry 2 rounds. Add +30 to next attack.	Break foe's wrist on weapon arm. Arm is useless. +10 hits. Fine hand throw.	Throw foe 10 feet. Foe is down on his face, disarmed and stunned and unable to parry 6 rounds.
86-90	Foe lands on his back. Muscle and cartilage damage. Foe quickly recovers, but is stunned and unable to parry for 2 rounds. Foe is at -20.	Foe lands on his back and is stunned and unable to parry for 2 rounds. Torn tendon and broken bone, foe is at -25.	Throw drops foe on his back. Vertebrae cracked and foe is at -50. Foe is stunned and unable to parry 3 rounds.	Throw drops foe and you put him into a severely immobolizing arm lock. Foe is stunned and unable to parry for 6 rounds.	Throw sends foe flying into nearest enemy within 10 feet. All involved are stunned and unable to parry 3 rounds, take +9 hits.
91-95	Throw downs foe and breaks his nose. Foe is at -25. +7 hits. Foe is stunned and unable to parry 2 rounds.	Fall breaks ribs, disarms foe, and sends him rolling 10 feet. Foe is at -30 and is stunned and unable to parry for 12 rounds.	Sweep downs foe and you put him in a leg-breaking hold. +9 hits. Foe is pinned, stunned and unable to parry 15 rnds.	Throw bashes foe against nearly hard surface. Foe is knocked out and you can use a killing kick if you so desire.	Sly rolling throw sends foe into air. Foe is left disarmed and unconscious. You spring to your feet 10 feet away.
96-99	Throw sends foe down on his head. If foe has helm, he is stunned 9 rounds. If not, foe is knocked out.	Sweep stuns foe; kick disarms him; and another sweep knocks him flat on his back. Foe is unconscious. +20 hits.	Throw cracks foe's skull. If foe has helm, he is in a coma. If not, he dies of brain damage in 1 round.	Throw sends foe down. He is impaled by broken rib or his own weapon and dies in 6 rounds.	Fall snaps foe's neck, killing him instantly. Add +25 to your next attack.
100	Snazzy throw. Foe is stunned and unable to parry 6 rounds. Foe is prone and you can finish him (if you desire) with a knee to the solar plexus.	Fabulous throw sends foe flying. Foe's neck is broken on impact and he dies after rolling 15 feet.	Fall breaks foe's back. +12 hits. Foe paralyzed from the neck down. Add +20 next roll.	Sweeps sends foe twisting backwards 5 feet. Foe's spine is snapped and he is left a quadriplegic.	Using but half the round, you use a rolling throw to send foe against nearest hard surface. Foe dies, you are up, press on.

11.3.4 TINY ANIMAL CRITICAL STRIKE TABLE

	A	B	C	D	E
01-05	Dubious strike. +0 hits.	Not enough. +0 hits.	Real weak. +0 hits.	HA!	+1 hit.
06-10	Zip.	No bonus. +0 hits.	Nothing extra.	+1 hit.	+2 hits.
11-15	Looking bad. +0 hits.	+1 hit.	+1 hit.	+1 hit.	+2 hits.
16-20	+1 hit.	+1 hit.	+1 hit.	+2 hits.	Cutting strike. +2 hits and foe takes +1 hit per round.
21-35	+1 hit.	+2 hits.	+2 hits.	+3 hits.	Minor calf wound. +2 hits and foe takes +1 hit per round.
36-45	Cruel blow. +2 hits.	+3 hits.	Light wound. +2 hits and foe takes +1 hit per round.	Leg strike. If foe has no leg armor, +5 hits and he takes +1 hit per rnd.	Leg hit. +3 hits and foe takes +1 hit per round.
46-50	Poor follow through. You lose a claw and fight at +5 for 2 rounds. Foe takes +4 hits.	+3 hits.	+4 hits.	Mild puncture. +3 hits and foe takes +1 hit per round.	Lower back strike. +5 hits. Foe must parry next round and takes +1 hit per round.
51-55	Leaping chest strike yields +3 hits.	Light wound. Foe takes +1 hit per round. +3 hits.	Mild chest wound. Foe takes +2 hits per rounds. +4 hits.	Slash foe's lower chest. If foe has no metal chest armor, +5 hits and +3 per round.	Chest strike. +6 hits and foe is forced to parry next round. Foe takes +2 hits pr round.
56-60	Light thigh wound. Foe takes +1 hit per round. +1 hit.	Thigh strike, but no real penetration. +6 hits.	Mild thigh wound stuns foe next round. +4 hits and foe takes +2 hits per round.	Thigh strike stuns foe for next round. +6 hits and foe takes +2 hits per round.	Thigh wound. Foe is stunned for next round. +7 hits and foe takes +3 hits per round.
61-65	Mild forearm wound. Foe takes +2 hits per round. +2 hits.	Raking forearm strike leaves nasty scar. Foe takes +2 hits per round. +3 hits.	Forearm strike. Foe is forced to parry for 2 rounds. +3 hits and foe takes +2 hits per round.	Forearm wound. Foe is forced to parry for 2 rounds. +5 hits. Foe takes +2 hits per round. Add +10 to your next roll.	Strike to forearm. Foe is stunned next round and you gain initiative for next 2 rounds. Foe takes +3 hits per round. +6 hits.
66	Leg strike. Foe is stunned and unable to parry next round. +4 hits. Foe takes +2 hits per round.	Calf strike. Foe tears muscle, is stunned 2 rounds, and is at -20. +5 hits.	Bizarre wrist strike disarms foe. +4 hits. Foe is stunned next round. Add +10 to your next roll.	Astounding head strike. If foe has a helm, +4 hits. If not, +7 hits and foe is unable to parry for 6 rounds.	Bizarre strike to eyes destroys 1 eye and blinds the other eye for 2 days. Foe is at -95 and is stunned for 24 rounds.
67-70	Shoulder strike. Foe takes +1 hit per round and must parry next round. +3 hits.	Upper chest strike. Foe is stunned next round. +4 hits. Foe takes +1 hit per round.	Strike to foe's shoulder. Foe takes +2 hits per round. +5 hits. Foe is stunned next round at -20.	Upper arm strike. Foe stunned and unable to parry next rnd. Foe takes +2 hits per round. +6 hits.	Inspired shoulder strike tears muscle. Foe is stunned and unable to parry next rnd. Foe is at -20. +7 hits.
71-75	Lower leg strike. If foe has leg armor, +1 hit. If not, foe takes +4 hits and +2 hits per round. Foe has initiative next round.	Strike to lower leg. If foe has leg armor, +3 hits. If not, foe takes +6 hits, +2 hits per rounds, and must parry next 2 rounds.	Calf strike. Slash muscle. Foe is at -20. Wound gives foe +2 hits per round, and stuns him for 2 rounds.	Lower leg strike. If foe has leg armor, +3 hits and he is stunned next round. If not, foe is stunned 2 rounds, is unable to parry next round.	Vicious leg wound. Foe takes +4 hits per round and is stunned 3 rounds. +5 hits.
76-80	Weak, but precise strike to foe's arm. Foe takes +1 hit per round and is stunned next round. +3 hits.	Strong, but imprecise arm strike. Foe takes +2 hits per round and is at -15 due to moderate wound. +5 hits.	Forearm strike. Muscle and tendon slashed. Foe fights at -25, takes +2 hits per round, and is stunned 2 rounds. +5 hits.	Arm strike. Muscle and tendon torn. Foe fights at -25, takes +2 hits per rounds, and is stunned 3 rounds. +5 hits.	Sly arm strike gives foe a troublesome wound. Foe is stunned and unable to parry for 2 rounds and takes 3 hits per round.
81-85	Strike to foe's face. +4 hits. Foe is stunned next round and takes +2 hits per round.	Flying face strike. If foe has facial armor, +2 hits and foe must parry next round. If not, foe takes +3 hits per round and stunned for 3 rounds.	Head strike. If foe has helm, +3 hits and he is stunned next round. If not, foe has vicious scar, takes +3 hits per round, and is at -40.	Acrobatic face strike. If foe has facial armor, +5 hits. If not, foe's nose torn and he takes +3 hits per round, is stunned 3 rounds, and is at -40.	Head strike. If foe has helm, +4 hits and he is stunned next round. If not, foe takes +3 hits per round, fights at -25, and is stunned 9 rounds.
86-90	Sudden, well-placed blow. Foe is stunned for 2 rounds. +6 hits.	Slash foe's neck. Foe takes +2 hits per round and is stunned for 3 rounds. +5 hits.	Shoulder strike spins foe. Foe is stunned and unable to parry 2 rounds. +6 hits.	Strike to foe's weapon arm. Foe is disarmed and stunned next round. +5 hits.	Upper thigh wound, muscle torn. Foe is at -40 and takes +3 hits pr round. +4 hits. Foe is stunned for 3 rounds, unable to parry 1 round.
91-95	Leaping head strike. If foe has helm, +3 hits and foe is stunned next round. If not, foe is at -30 and stunned 2 rounds. Ear torn.	Wrist strike. Wound yields +2 hits per round. Foe is stunned fo 3 rounds and unable to parry next round. +5 hits.	Neck strike. Foe is stunned and unable to parry for 2 rounds and takes +2 hits per round. Foe fights at -20. +3 hits.	Well-timed attack tears muscle in thumb on foe's hand. Foe is disarmed and stunned and unable to parry 2 rounds. Foe fights at -50.	Dazzling leap knocks foe down. Foe is disarmed and unconscious. +9 hits.
96-99	Insulting strike to foe's nose. If foe has full helm, he is stunned 2 rnds. If not, foe has shredded nose, takes +3 hits per rnd, and is stunned 9 rnds.	Head strikke. Foe is blinded by bleeding, takes +3 hits per round, and is stunned and unable to parry for 3 rounds. Foe at -40 while bleeding.	Slash foe's Achilles tendon. Foe is knocked down and is stunned and unable to parry for 3 rounds. Foe takes +1 hit per round, operates at -75.	Strike to foe's eyes. If foe has full helm, he is blind and at -95 for 1 week. If not, foe loses 1 eye and is blind in the other...and at -100.	Head strike knocks foe down. Foe has massive concussion and dies in 9 rounds due to shock and internal bleeding. Pitiful sight.
100	Strike to foe's eyes. If foe has full helm, he is stunned and unable to parry for 2 rounds. If not, foe loses 1 eye, is at -75, and is stunned and unable to parry for 3 rounds.	Slashing throat attack knocks foe down. Foe is stunned and unable to parry for 6 rounds, takes +3 hits per rounds, and fights -50.	Bizarre attack to foe's head area causes foe to strike himself. Foe must roll on the "E" column on the crush critical strike table.	Strike to foe's eyes. +10 hits. Foe is stunned and unable to parry for 6 rounds, takes +2 hits per round, and is at -95. Blindness permanent.	Unbelievable neck strike knocks foe down. Vein and artery are severed. Foe takes +20 hits per round, dies after 6 inactive rounds.

11.3.5 UNBALANCING CRITICAL STRIKE TABLE

	A	B	C	D	E
01-05	Nary a thing extra. +0 hits	Fairly weak. +0 zip.	Nope.	+1 hit.	+2 hits.
06-10	Sorry pal, maybe next time.	+1 hit.	+2 hits.	+3 hits.	+5 hits.
11-15	Glancing strike. +3 hits.	Lame side strike. +4 hits.	Weak blow. +5 hits.	Back strike. +6 hits.	Blow to back. +7 hits.
16-20	Foe must parry next round. +3 hits.	Glancing side blow. +4 hits and foe must parry next round.	Side strike. Foe must parry next round. +5 hits.	Blow to foe's side. Foe is at -10 next round. +7 hits.	Side blow. Foe is at -20 next round. +8 hits.
21-35	On line, but weak. Foe must parry next round. +4 hits.	Foe is unbalanced and is at -20 next round. +5 hits.	Chest strike. Foe is stunned next round. +6 hits.	Blow is weak but stuns foe for next round. +8 hits.	Blow cracks foe's rib. Foe is stunned and at -10 next round. +9 hits.
36-45	Break foe's concentration. You gain initiative for next round. +4 hits.	Leg strike unsteadies foe. +5 hits. You gain initiative next rnd. Foe is at -5 for 2 rnds.	Blow to leg. Foe is at -40 next round. +5 hits.	Calf strike. Foe's hurt muscle impairs maneuvers by -25. You gain the initiative next rnd. +7 hits.	Hard glancing blow to leg. If foe has leg armor, +10 hits. If not, +12 hits and foe stunned for 2 rnds.
46-50	Back strike. +5 hits. Foe must parry next round at -10. Good, glancing shot.	Back hit forces foe to parry next round at -20. +5 hits.	Lower back strike. Foe reels and is stunned and unable to parry next round. +5 hits.	Blow to back spins foe. +8 hits and foe is stunned and unable to parry next round.	Strong back blow staggers foe. +12 hits. Foe is stunned and sadly unable to parry next round.
51-55	Chest strike knocks foe back. Foe must parry next round at -20. +5 hits.	Blow stuns foe for next round. +5 hits.	Blast staggers foe. +6 hits and foe is stunned and unable to parry next round.	Chest strike takes wind out of foe. +10 hits. Foe is stunned and unable to parry next round.	Foe is knocked down. +12 hits. Foe is stunned and sadly unable to parry next round.
56-60	Glancing leg strike. If foe has leg armor, +5 hits. If not, +7 hits and foe is stunned next round.	Thigh strike bruises foe. +6 hits. Foe is forced to parry at -30 next round.	Skipping calf strike. If foe has leg armor, +7 hits. If not, +9 hits, foe is stunned 2 rounds, and moves at -10.	Thigh strike. +12 hits. Foe is stunned for 2 rounds. You have initiative next 3 rounds.	Glancing strike to leg. Foe is stunned for 3 rounds. +14 hits.
61-65	Arm strike. Foe is stunned for next round. +6 hits.	Forearm strike disarms foe. +6 hits.	Shoulder strike disarms foe and leaves foe stunned for 2 rounds. +6 hits.	Arm strike disarms foe. Foe is stunned for 2 rounds. Add 20 to next action. +7 hits.	Blow to shoulder spins foe. +13 hits. Foe is stunned and unable to parry for 2 rounds.
66	Shoulder strike sends foe spinning. +7 hits. Foe is stunned and unable to parry for 2 rounds while regaining bearings.	Elbow strike numbs foe's forearm. +8 hits. Foe drops his weapon and is stunned and unable to parry 2 rounds.	Knee strike knocks foe down. +9 hits. Foe is at -80 due to broken knee and is stunned and unable to parry 3 rounds.	Hard hit strike. If foe has helm, he is knocked back 10 feet and stunned for 6 rounds. If not, foe is knocked out for 24 hours.	Foe is knocked down and is unconscious. +30 hits.
67-70	Chest strike unbalances foe. +6 hits. Foe is unbalanced and fights at -50 for 2 rounds.	Blow to foe's chest. +7 hits. Confused foe is stunned and unable to parry next round.	Strike to chest. Foe is at -20 due to broken ribs. +8 hits. Foe is stunned fo 2 rounds.	Shoulder strike spins foe. +10 hits. Foe is at -25 due to a broken collar bone and is stunned and unable to parry next round.	Shoulder blast knocks foe down. Foe is stunned and unable to parry for 2 rounds and is at -10 due to minor fracture.
71-75	Blow to foe's lower leg. Foe is stunned for 2 rounds. +7 hits.	Blow bruises foe's calf. Foe is stunned next round. +9 hits. Foe is at -10.	Bruise foe's leg. +10 hits. Foe is stunned and unable to parry next round. Foe operates at -20.	Blow break foe's leg. Foe moves at -75. +12 hits. Foe is stunned and unable to parry next round.	Hard blow to foe's thigh knock foe down. +15 hits. Foe is stunned and unable to parry 3 rounds.
76-80	Blow to shield arm. If foe has a shield, it is torn away and +8 hits. If not, +12 hits and foe is stunned for 2 rnds.	Strike to foe's shield arm. Foe is stunned for 2 rounds and is knocked backwards 5 feet. +10 hits. Bruise — foe at -10.	Strike to foe's weapon arm. Foe is knocked back 5 feet and is stunned for 3 rounds. +11 hits. Mild fracture. Foe is at -25.	Strong blow to foe's weapon arm. Foe is knocked back 10 feet. +10 hits. Foe is at -25 and drops weapon. Foe is stunned for 3 rnds.	Strike to foe's shield arm. Foe stumbles back 3 feet and falls down. +15 hits. Foe is stunned and unable to parry for 4 rnds and is disarmed.
81-85	Side strike. +12 hits. Foe is stunned and unable to parry next round. Add +10 to your next roll.	Blow to foe's side. Foe is knocked sideways 3 feet and is stunned for 3 rounds. +15 hits.	Shot to side knocks foe 5 feet sideways. Foe drops anything carried in his shield hand (and any shield) and is stunned for 6 rounds.	Strike to foe's shield side knocks foe 5 feet sideways. Foe breaks ankle and falls down. Foe is at -50. +11 hits.	Awesome side shot sends foe tripping sideways. Foe breaks leg and rolls 5 feet. Foe is at -50, is stunned and unable to parry 6 rounds.
86-90	Blow to back. Foe stumbles 5 feet sideways and it stunned for 3 rounds. +13 hits. Add +20 to your next roll.	Strike to foe's back knocks foe sideways 10 feet. +12 hits. Foe is stunned and unable to parry for 2 rounds.	Precise back strike knocks foe down. Foe is disarmed and stunned for 6 rounds. +14 hits. Add +20 to your next roll.	Brutal back strike knocks foe down. +12 hits. Foe is disarmed and stunned and unable to parry for 4 rounds.	Cruel head strike... Foe sees stars. +20 hits. Foe is knocked 10 feet backwards and is stunned and unable to parry 12 rounds.
91-95	Head strike breaks foe's nose. If foe has helm, he is stunned 3 rounds. If not, foe is knocked out for at least 2 hours.	Blow to side of foe's head crushes ear area. Foe is stunned for 6 rounds. +9 hits. Foe is at -50 for 3 weeks .... impaired balance.	Side strike spins foe 10 feet sideways. Foe must roll on appropriate fumble table next 3 rounds. +8 hits.	Strike to foe's arm. If foe has shield, he loses it and take +10 hits. If not foe's arm is useless and he is stunned for 9 rounds.	Blow to foe's shield shoulder. If foe has shield, he is stunned 6 rounds. If not, he is knocked down, has a useless arm, passes out.
96-99	Nicely placed strike sends foe sprawling on his face. +10 hits. Foe is stunned and unable to parry for 3 rounds.	Side strike causes foe to ungracefully stumble to an embarrassing prone position. Foe in stunned and unable to parry 6 rounds.	Smooth and snazzy strike sends foe to his knees. If foe was using 1-hand weapon, it is thrown backwards 10 feet. Foe is stunned 24 hours.	Strike to foe's head sends him 10 feet backwards. If helmed, +9 hits, the helm is destroyed, and foe stunned 6 rnds. If not, foe is sent into coma for 4 weeks.	Pinpoint strike breaks foe's neck. Foe falls back 5 feet, spins, and stumbles to the ground. Foe dies of shock and suffocation in 3 rounds.
100	Brutal hip strike knocks foe down, tears tendon and shatters joint. Foe stunned and unable to parry for 9 hours. Leg useless, foe -90.	Inspired back strike sends foe flying 10 feet and onto his face. Severe nerve damage. Foe is paralyzed from waist down.	Upper chest strike knocks foe 10 feet sideways. Foe falls down and breaks both arms. Foe is sent into a 2 month coma.	Savage blow to foe's head knocks foe down. Foe falls into coma and dies in 12 rounds due to severed vein. Add +20 next roll.	Frightening strike to foe's temple knocks foe back 20 feet. Foe dies instantly. Add +20 to your next 3 rolls. Be kind now.

8.2.1 WEAPON FUMBLE TABLE

	HAND ARMS (1-handed)	HAND ARMS (2-handed)	SPEAR & POLE ARMS	MOUNTED ARMS	THROWN ARMS	BOWS
01-25	Lose your grip and the opportunity to get in an open blow. Maybe you will improve.	Lose your grip. You lose the opportunity to take an open swing.	Lose your grip. You lose the opportunity to take an open swing.	Lose your grip. You lose the opportunity to take an open strike.	Lose your grip. You elect not to attack because of lost control.	Lose your grip. You elect not to attack. Good choice.
26-30	Drop your weapon. It will take 1 round to draw a new one, or 2 rounds to recover old one.	Drop your weapon. It will take 2 rounds to draw new one or 4 rounds to recover old one.	Fumble your delivery. You lose the option to attack but youcan still parry.	Fumble your delivery. You lose 2 rounds but can still parry.	You fumble your delivery and hang onto your weapon. Subtract 10 from your next attack.	One's ten thumbs just cannot handle loading. You lose the rounds.
31-40	You slip with grace and lose the opportunity to get in the vital blow.	You slip into fog of mind. You lose 1 round in order to collect your thoughts.	You slip and are stunned for 1 round. All right, you just look clumsy. Try again.	You slip and lose your saddle position. You lose 2 rounds but can still parry.	You slip and lose 2 rounds to fully recover. You hold onto weapon and still parry.	You fumble your ammunition. You lose 2 rnds trying to recover. Real weak, kid.
41-50	Bad follow through. You lose your opportunity and give yourself 1 hit. Real weak.	Stumble over an unseen imaginary deceased turtle. You lose 2 rnds of offensive action but can parry.	Lose your grip and juggle weapon for 2 rounds. You can still parry. Your next swing is at -10.	Your mount rears and you are quite stunned for 2 rounds during the recovery.	You fumble your weapon after losing your grip. You are stunned for 3 rounds.	Break arrow and lose your cool. You find yourself out of 2 rounds of action.
51-60	You slip without grace and lose 2 rounds worth of opportunities. Good luck Pal.	Bad move. You lose 2 rounds of open swings. Fortunately, you can still parry.	You slip and almost fall. You are stunned and unable to parry for 2 rounds.	You lose your grip and fumble your weapon. You are stunned for 3 rounds.	Poor release. Weapon lands harmlessly 20 feet to the left of target.	Drop your arrow. You lose 2 rounds reloading. Try hand arms next time.
61-70	Lose your grip and juggle your weapon for 2 rounds. You can still parry.	Lose you grip and juggle your weapon for 2 rounds. You can still parry.	Lose your grip and juggle weapon for 3 rounds. Your next swing is at -10.	Your poor mount stumbles and you are stunned and unable to parry for 2 rounds.	Very poor release sends weapon off directly to the right. Reroll if someone lies in the new path.	Drop your bow. You lose 2 rounds while retrieving and reloading it.
71-80	Lose your grip and juggle your weapon for 2 rounds. Unfortunately, you cannot parry.	Very bad move. You are stunned and unable to parry for 2 rounds. Not good.	Fumble your follow-through. You lose 3 rnds. You are stunned for 2 rounds.	You break your weapon and lose 2 rounds while drawing a new one.	You slip and lose 3 rounds to fully recover. You hold onto weapon, but cannot parry.	Bowstring breaks. You lose 6 rnds while restringing bow or 2 rnds while drawing a new weapon.
81-85	You lose your "wind" and realise that you should relax and not swing for 2 rounds.	Lose your grip and juggle your weapon for 3 rounds. You can still parry.	Clumsy move. You are stunned and unable to parry for 3 rounds.	You drop your weapon in one of you lighter moments. Lose 2 rounds drawing a new one.	You drop your weapon. It will take 2 rounds to draw new one or 4 rounds to recover old one.	You fumble your weapon. You are stunned and quite unable to parry for the next 3 rounds.
86-90	Foe's smooth moves leave you stunned for 2 rounds. Hopefully, you will learn.	Incredibly bad move. You are stunned and unable to parry for 3 rounds.	Drop your weapon. It will take 2 rounds to draw new one or 6 rounds to recover old one.	You break your weapon and lose 2 rnds drawing a new one. You take 10 hits.	You fumble your weapon badly but hang onto it. You are stunned and unable to parry for 6 rounds.	You let your arrow fly much too soon. You strike 20 feet short of target. You are out 2 rounds.
91-95	You stumble. The classless display leaves you stunned for 3 rounds. You might still survive.	You stumble and nearly fall down in an apparent attempt to commit suicide. You are stunned 4 rounds.	You trip and fall. It will take 4 rounds to recover. You are unable to parry for 3 rounds.	Your seating is improper and you find yourself stunned and unable to parry for 3 rounds.	You let go of weapon too early and send it off 30 feet behind you.	Slip and fall down. You are stunned for 6 rounds, and unable to parry 2 rounds. Your shot goes astray.
96-99	Swallow tongue in the excitement. You are stunned and unable to parry for 3 rounds.	You trip and fall. It will take 4 rnds to recover. You are unable to parry for 3 rounds.	You injure your shoulder. You are stunned and unable to parry for 3 rnds and fight at -25.	Your body takes the impact. You take 20 hits. Stunned and unable to parry/6 rnds.	You fall down. Your shot goes astray. You are stunned for 12 rounds.	Break your bow. You are stunned and unable to parry for 4 rnds of action. Good luck, pal.
100	Bad taste and poor execution. You attempt to maim yourself. Roll on the "D" critical table (slashes).	Worst move seen in ages. 50% chance you are out 2 days with a pulled groin. 50% chance opponent out 3 rnds laughing.	You break your weapon and are stunned and unable to parry for 6 rounds.	You fall off of your mount. Role on the "D" crush critical strike table.	You hit yourself during delivery. Roll on the "D' critical strike table (crushes).	Poor judgement. You let arrow fly and lose an ear. +5 hits. You take 2 hits per round.

8.2.2 MANEUVER / MOVEMENT TABLE

	Routine	Easy	Light	Medium	Hard	Very Hard	Extremely Hard	Sheer Folly	Absurd
-201	Fall down. +2 Hits. You are out 3 rounds.	Fall. Knock self out. You are out for 12 rounds. +9 Hits.	Fall. Break arms. +10 Hits. You are out for 6 rounds.	Fall. +15 Hits. Break arm. You are out for 9 rounds.	Fall. Break arms. +20 Hits. You are out 18 rounds. Arms useless.	Fall. Break both arms and neck. +30 Hits. You ar out 60 rounds.	Fall sends you into a coma for 3 years. +30 Hits. Broken spine.	Fall breaks neck. You die in 3 rounds.	Fall crushes skull.
(-200) — (-151)	Fail to act.	Fall down. Lose 2 rounds. +2 Hits.	Fall down. +3 Hits. You are out for 4 rounds.	Fall. Break wrist. +10 Hits. You are out for 6 rounds.	Fall. Break leg. +15 Hits. You are out 9 rounds.	Fall. Break arms.+20 Hits. You are out 18 rounds. Arms useless.	Fall. Break back and legs. +25 Hits. Paralysis of lower body.	Fall. You smash your backbone and are in a coma for 1 year.	Fall paralyzes you from neck down.
(-150) — (-101)	10	Fail to act.	Fall down. +2 Hits. You are out for 2 rounds.	Fall down. Sprain ankle. You are at -25. +6 Hits.	Fall. Break arm. +10 Hits. You are out 6 rnds. stunned 3 rnds.	Fall. Break leg. +15 Hits. You are out for 6 rounds.	Fall. +30 Hits. You are out 6 rnds. Shatter knee. You are at -80.	Fall. Break both arms and neck. +30 Hits. You are out 60 rnds.	Fall. You smash your backbone and are in a coma for 1 year.
(-100) — (-51)	30	10	Fail to act.	Fall down. Lose 2 rounds. +3 Hits.	Fall down. Sprain ankle. You are at -25. +5 Hits.	Fall. +20 Hits. Break your wrist. Out 2 rnds. Not very smooth.	Fall. +12 Hits. Break arm. You are out for 6 rounds.	Fall.. +30 Hits. You are out 9 rnds. Shatter knee. You are at -80.	Fall. Break back and legs. +25 Hits. Paralysis of lower body.
(-50) — (-26)	50	30	10	Fail to act.	Fall down. +5 Hits. You are out 3 rounds.	Fall. Sprain ankle and tear ligament. You are at -30. +15 Hits.	Fall. +10 Hits. Knock yourself out. Out for 18 rnds. You lose. pal.	Fall. +12 Hits. Break arm. You are out for 6 rounds.	Fall. You are out 18 rounds. You break both arms. +25 Hits.
(-25) — 0	70	50	30	5	Fail to act.	Fall down. +5 Hits. You are out of action for 3 rounds.	Fall. Sprain ankle and tear muscle. You are at -30. +10 Hits.	Fall. +20 Hits. Break your wrist. Out 2 rnds. Not very smooth.	Fall. +10 Hits. Break your leg. You are at -75. Out 6 rounds.
01 — 20	80	60	50	10	5	Fails to act.	Fall down. +5 Hits. you are out for 3 rounds.	Fall. +5 Hits. You pull a leg muscle. You are at -25. Out 2 rounds.	Fall. +15 Hits. Break your arm. You are out for 6 rounds.
21 — 40	90	70	60	20	10	5	Fail to act.	Fall down. +7 Hits. You take 3 hits per round. Out for 2 rnds.	Fall. Knock yourself out. You are out for 30 rounds. +10 Hits.
41 — 55	100	80	70	30	20	10	5	Fall down. +5 Hits. Out for 3 rounds.	Fall. Sprain ankle. You are -30. +15 Hits.
56 — 65	100	90	80	40	30	20	10	Fail to act.	Fall. +7 Hits. 3 hits/ rnd. Out for 2 rounds.
66 — 75	100	100	90	50	40	30	20	5	Freeze for 2 rounds.
76 — 85	100	100	100	60	50	40	30	10	Fail to act.
86 — 95	100	100	100	70	60	50	40	20	5
96 — 105	110	100	100	80	70	60	50	25	10
106 — 115	110	110	100	90	80	70	60	30	20
116 — 125	120	110	110	100	90	80	70	40	30
126 — 135	120	120	110	100	100	90	80	50	40
136 — 145	130	120	120	110	100	100	90	60	50
146 — 155	130	130	120	120	110	100	100	70	60
156 — 165	140	130	120	120	120	110	100	80	70
166 — 185	140	140	130	Super move. You feel great. Take 4 hits from your current total.	Excellent move. You are unstunned. +10 to allies' rolls for 2 rnds.	120	110	90	80
186 — 225	150	140	Great move. You feel better. Subtract 4 hits from current total.	Move inspires all. You are unstunned. Allies are at +10 for 2 rnds.	Move inspires your allies. +20 to friendly rolls for 3 rounds.	Move inspires your allies. +30 to friendly rolls for 2 rounds.	120	100	90
226 — 275	150	Incredible move. You feel great. Take 3 from your hit total.	Move inspires all. You are unstunned. Allies are +10 for 2 rnds.	Move inspires your allies. +20 to friendly rolls for 3 rounds.	Move inspires your allies. +25 to friendly rolls for 3 rounds.	Move inspires your allies. +30 to friendly rolls for 3 rounds.	You have half the round to act.	100	100
276+	Incredible move. You feel great. Take 3 from your current hit total.	Brilliant. Move inspires all. Allies are at +10 for 2 rnds.	Move inspires your allies. +20 to friendly rolls for 3 rounds.	Move inspires your allies. +25 to friendly rolls for 3 rounds.	Move inspires your allies. +30 to friendly rolls for 3 rounds.	Move inspires your allies. +30 to friendly rolls for 4 rounds.	Move inspires your allies. +30 to friendly rolls for 6 rounds.	Move stuns all foes within 30'. You still have half a rnd to act.	Move stuns all foes within 50 feet.

8.2.3 BATTLE ROUND SEQUENCE

1 — Spell Action Phase
2 — Spell Results Phase
3 — Spell Orientation Phase
4 — Fire Phase (A)
5 — Fire Result Phase (A)
6 — Movement/Maneuver Phase
7 — Fire Phase (B) *
8 — Fire Result Phase (B) *
9 — Melee Phase
10 — Melee Result Phase
11 — Final Orientation Phase

* — Optional second fire phases, see Section 3.0 and 3.1.

8.2.4 ARMOR TABLE

Armor Type	Minimum Maneuver Mod.*	Maximum Maneuver Mod.†	Missle Attack Penalty‡	Quick-ness Penalty§
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	-20	5	0
7	-10	-40	15	10
8	-15	-50	15	15
9	-5	-50	0	0
10	-10	-70	10	5
11	-15	-90	20	15
12	-15	-110	30	15
13	-10	-70	0	5
14	-15	-90	10	10
15	-25	-120	20	20
16	-25	-130	20	20
17	-15	-90	0	10
18	-20	-110	10	20
19	-35	-150	30	30
20	-45	-165	40	40

* — Minimum maneuver modification applied to a combatant fully trained in maneuvering while wearing the given armor type. See *ChL* Section 3.4.

† — Maximum maneuver modification applied to a combatant totally untrained in maneuvering while wearing the given armor type. See *ChL* Section 3.4.

‡ — The missile attack penalty acts as a modification to the missile OB for a combatant wearing the given armor. This is meant to reflect the disadvantageous effect of armor worn on the arms of a combatant.

§ — An armor Quickness penalty can reduce or cancel a combatant's Quickness stat bonus for his DB (see Section 4.4.2). Unlike those penalties above, this penalty can only reduce the armor wearer's Quickness stat bonus. It will not reduce a combatant's overall DB below the level that it would be at with a zero Quickness stat bonus.

8.2.6 DEFENSIVE MODIFICATIONS TABLE

Effect	Category and Notes
+ (variable)	Armor quality bonus, Adrenal Defense bonus, (Quickness stat bonus - armor Qu penalty), spell bonuses, special item bonuses. These factors are usually fixed for a given character. (See Section 4.4.)
+ (variable)	Shield bonus (see the Shield-Parry Table 8.2.5).
+ (variable)	Parrying bonus (see Section 4.2)
+20	Half "Soft" cover (see Section 4.4.4) *.
+40	Full "Soft" cover (see Section 4.4.4) *.
+50	Half "Hard" cover (see Section 4.4.4) *.
+100	Full "Hard" cover (see Section 4.4.4) *.
± (variable)	Miscellaneous (determined by Gamemaster).

Note: *Modifications are cumulative unless noted otherwise.*
* — Only one of these modifications can be applied at any given time.

8.2.7 OFFENSIVE MODIFICATIONS TABLE

Effect	Category and Notes
+ (variable)	Skill bonus, stat bonus, level bonus, weapon quality bonus, spell bonuses, special item bonuses. These factors are usually fixed for a given character. (See Section 4.4.)
- (variable)	Parrying bonus (see Section 4.3).
-20	If weapon used in left hand (see Section 5.1).
± (variable)	Range modifications (see individual attack tables).
- (variable)	Reloading penalty (see Section 5.2.12).
- (variable)	Armor missile attack penalty (see Table 8.2.4).
+15	Flank attack.
+20	Rear attack.
+20	Surprise.
+20	Stunned foe *.
+30	Downed foe *.
+50	Prone foe *.
-10	Wounded more than 25% (concussion hits).
-10	Wounded more than 50% (concussion hits).
-10	Wounded more than 75% (concussion hits).
-20	Drawing a weapon (also applies to movement).
-50	Changing weapons (also applies to movement).
- (variable)	Moving (normally the % of possible movement equals the penalty).
± (variable)	Miscellaneous (to be determined by the GM).

Note: *Modifications are cumulative unless noted otherwise.*
* — Only one of these modifications can be applied at any given time.

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8.2.5 SHIELD-PARRY TABLE

Shield Type	Bonus Versus Melee	Bonus Versus Missile	Weight In Pounds	Parry Limitations
Wall Shield	30	40	45-50	None
Full Shield	25	25	25-30	None
Normal Shield	20	20	15-20	None
Target Shield	20	10	5-10	None
Maine Gauche	15*	0	1-3	Cannot parry missile attacks.
One-Handed Arms	5*	0	—	Cannot parry missile attacks.
Two-Handed Arms	5*	0	—	Cannot parry missile attacks. Against One-handed weapons a maximum of 50% of wielder's OB may be used to melee parry.
Pole Arms	5*	0	—	Cannot parry missile attacks. Against non-pole arms a maximum of 50% of wielder's OB may be used to melee parry.
Terrain	(variable)		—	To be determined by the referee (e.g., a stone wall could be used to "parry" a missile attack).

* — Can only be used if weapon not used to attack with or if 100% of OB is used to parry (see Section 4.3).

8.2.8 INITIATIVE DETERMINATION TABLE

Effect	Category and Notes
+ (1-100)	Quickness stat (1-100 base).
+10	Strength (applies to the stronger combatant).
+30	Weapon ready.
0	One-handed weapon.
-10	Two-handed weapon.
+40	Pole Arm, on 1st round of combat between 2 opponents.
-20	Pole Arm, after 1st round of combat between 2 opponents.
+10	Longer weapon when neither opponent is charging.
+30	Longer weapon when one or both opponents are charging.
-5	Two weapon combination.
-10	Shield.
-40	Surprised.
-40	Encumbered.
-40	Wounded more than 50% (concussion hits).
- (variable)	Moving, subtraction equal to % of movement expended.

Note: *Total all applicable modifications; the melee combatant with the higest total attacks first.*

8.2.9 MANEUVER MODIFICATIONS TABLE

Effect	Category and Notes
-35 to +35	Applicable stat bonus (usually Agility).
-10	Wounded more than 25% (concussion hits).
-10	Wounded more than 50% (concussion hits).
-10	Wounded more than 75% (concussion hits).
- (variable)	Armor, see Table (8.2.4) for maneuver mod.
± (variable)	Applicable skill bonus (see *ChL* Section 3.0).
± (variable)	Bonuses due to spells (see *SL*).
± (variable)	Unusual absurdities (determined by GM).
± (variable)	Miscellaneous (determined by GM).

Note: *Modifications are cumulative unless noted otherwise.*

RELOADING CHART (result is the OB penalty)

Weapon	Number of Preparation Rounds 0	1	2	3
Short Bow	10	0	0	0
Composite Bow	20	0	0	0
Long Bow	30	0	0	0
Light Crossbow	na	20	0	0
Heavy Crossbow	na	30	10	0
Sling	10	0	0	0

na = not allowed

MOVEMENT RATE CHART

Quickness	Quickness Stat Bonus	Base Movement Rate
102+	+35	85'
101	+30	80'
100	+25	75'
98-99	+20	70'
95-97	+15	65'
90-94	+10	60'
75-89	+5	55'
25-74	0	50'
10-24	-5	45'
5-9	-10	40'
3-4	-15	35'
2	-20	30'
1	-25	25'

STRIDE MODIFICATION CHART

Height	Modification Due to Stride
7'10" — 8'3"	+20
7'4" — 7'9"	+15
6'10" — 7'3"	+10
6'4" — 6'9"	+5
5'10" — 6'3"	0
5'4" — 5'9"	-5
4'10" — 5'3"	-10
4'4" — 4'9"	-15
3'10" — 4'3"	-20
3'4" — 3'9"	-25
2'10" — 3'3"	-30
2'4" — 2'9"	-35
1'10" — 2'3"	-40

PACE CHART

Pace	Pace Multiplier	Normal Maneuver Difficulty	Exhaustion Point Cost/Rnd
Walk	1x	none	1 every 30 rnds
Fast Walk/Jog	1.5x	routine	1 every 6 rnds
Run	2x	easy	1 every 2 rnds
Sprint/Fast Run	3x	light	5/rnd
Fast Sprint	4x	medium	25/rnd
Dash	5x	hard	40/rnd

PACE LIMITATIONS CHART

Penalty	Prohibited Pace
Armor Qu Penalties -10 to -15	Dash
Armor Qu Penalties -16 to -45	Dash, Fast Sprint
Armor Qu Penalties -46 plus	Dash, Fast Sprint, Sprint
Up to 2x Wt. Allowance	None
From 2x up to 4x Wt. Allowance	Dash
From 4x up to 6x Wt. Allowance	Dash, Fast Sprint
6x Wt. Allowance and up	Dash, Fast Sprint, Sprint

ENCUMBRANCE CHART

Number of weight allowance units in load		Encumbrance Penalty
More Than	*Less Than or Equal to*	
0x	1x	0
1x	2x	-10
2x	3x	-20
3x	4x	-25
4x	5x	-30
5x	6x	-35
6x	7x	-40
7x	8x	-50
8x	9x	-60
9x	10x	-70
10x	11x	-80
11x	12x	-90
12x	13x	-100
13x	14x	-110
14x and up		-120

EXHAUSTION MODIFIER CHART

Factor	Modification to Exhaustion Points Expended
Temp. above 100°F	2x
Temp. above 120°F	4x
Temp. above 130°F	8x
Temp. below 20°F	2x
Temp. below -10°F	3x
Temp. below -30°F	5x
Temp. below -50°F	8x
Rough Terrain	2x
Mountainous Terrain	3x
Sand	3x
Bog	4x
Hits or wounds above 25%	2x
Hits or wounds above 50%	4x
More than 10 hours without sleep	2x
More than 15 hours without sleep	3x

Increase Mod. by 1 for each additional 5 hrs without sleep.

BONUSES FOR UNUSUAL STATS CHART

1-100 Stat	D100 Bonus	D20 Bonus	3-18 Stat	2-12 Stat
102+	+35	+7	20+	17+
101	+30	+6	19	15-16
100	+25	+5	18	13-14
98-99	+20	+4	17	12
95-97	+15	+3	16	—
90-94	+10	+2	15	11
85-89	+5	+1	14	10
75-84	+5	+1	13	9
60-74	0	0	12	8
40-59	0	0	10-11	7
25-39	0	0	9	6
15-24	-5	-1	8	5
10-14	-5	-1	7	4
5-9	-10	-2	6	3
3-4	-15	-3	5	—
2	-20	-4	4	2
1	-25	-4	4	2

DAMAGE RECORD

Combatant	Hits Taken	# Hits Being Taken per Rnd	Cumulative % Penalty	Cumulative Number of Rounds of:						Special
				Lost Initiative	Must Parry	Stun	Stun No Parry	Down or Out	Until Death	

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