

## MEASUREMENTS TABLE

RANK	MASS	TIME	DISTANCE	VOLUME
-5	1.5 lb.	1/8 second	6 inches	1/32 cft.
-4	3 lbs.	1/4 second	1 foot	1/16 cft.
-3	6 lbs.	1/2 second	3 feet	1/8 cft.
-2	12 lbs.	1 second	6 feet	1/4 cft.
-1	25 lbs.	3 seconds	15 feet	1/2 cft.
0	50 lbs.	6 seconds	30 feet	1 cubic ft. (cft.)
1	100 lbs.	12 seconds	60 feet	2 cft.
2	200 lbs.	30 seconds	120 feet	4 cft.
3	400 lbs.	1 minute	250 feet	8 cft.
4	800 lbs.	2 minutes	500 feet	15 cft.
5	1,600 lbs.	4 minutes	900 feet	30 cft.
6	3,200 lbs.	8 minutes	1,800 feet	60 cft.
7	3 tons	15 minutes	1/2 mile	125 cft.
8	6 tons	30 minutes	1 mile	250 cft.
9	12 tons	1 hour	2 miles	500 cft.
10	25 tons	2 hours	4 miles	1,000 cft.
11	50 tons	4 hours	8 miles	2,000 cft.
12	100 tons	8 hours	16 miles	4,000 cft.
13	200 tons	16 hours	30 miles	8,000 cft.
14	400 tons	1 day	60 miles	15,000 cft.
15	800 tons	2 days	120 miles	32,000 cft.
16	1,600 tons	4 days	250 miles	65,000 cft.
17	3.2 ktons	1 week	500 miles	125,000 cft.
18	6 ktons	2 weeks	1,000 miles	250,000 cft.
19	12 ktons	1 month	2,000 miles	500,000 cft.
20	25 ktons	2 months	4,000 miles	1 million cft.
21	50 ktons	4 months	8,000 miles	2 million cft.
22	100 ktons	8 months	16,000 miles	4 million cft.
23	200 ktons	1.5 years	32,000 miles	8 million cft.
24	400 ktons	3 years	64,000 miles	15 million cft.
25	800 ktons	6 years	125,000 miles	32 million cft.
26	1,600 ktons	12 years	250,000 miles	65 million cft.
27	3,200 ktons	25 years	500,000 miles	125 million cft.
28	6,400 ktons	50 years	1 million miles	250 million cft.
29	12,500 ktons	100 years	2 million miles	500 million cft.
30	25,000 ktons	200 years	4 million miles	1 billion cft.
+1	x2	x2	x2	x2

## MEASUREMENT RANKS

**DISTANCE RANK = TIME RANK + SPEED RANK**

**TIME RANK = DISTANCE RANK - SPEED RANK**

**THROWING DISTANCE = STRENGTH RANK - MASS RANK**

## MATERIAL TOUGHNESS

MATERIAL	TOUGHNESS
Paper	0
Soil	0
Glass	1
Ice	1
Rope	1
Wood	3
Stone	5
Iron	7
Reinforced Concrete	8
Steel	9
Titanium	15
Super-alloys	20+

Listed ranks are for about an inch (distance rank -7) thickness. Apply a +1 per doubling of thickness or a -1 per halving of it.

**TOTAL TOUGHNESS = BASE RANK + (THICKNESS RANK + 7)**

**DEVICE TOUGHNESS = TOTAL POINTS IN THE DEVICE / 5 (ROUNDED DOWN, MINIMUM 1)**

## MAKING CHECKS

**CHECK = D20 + YOUR RANK IN A SKILL OR ABILITY VS. DIFFICULTY CLASS (DC)**

### CRITICAL SUCCESS

A natural 20 on the die. Determine the degree of success normally and then increase it by one degree.

## ROUTINE CHECKS

**ROUTINE CHECK = 10 + YOUR RANK IN A SKILL OR ABILITY**

Only possible when not under pressure. Always possible for skills for which a character has Skill Mastery.

### CIRCUMSTANCE MODIFIERS

**+/-2 FOR A BONUS/PENALTY**

**+/-5 FOR A MAJOR BONUS/PENALTY**

## TEAM CHECKS

**TEAM CHECK = +2 CIRCUMSTANCE BONUS FOR ONE TOTAL DEGREE OF SUCCESS**

**+5 CIRCUMSTANCE BONUS FOR THREE OR MORE TOTAL DEGREES OF SUCCESS**

**-2 CIRCUMSTANCE PENALTY FOR TWO OR MORE TOTAL DEGREES OF FAILURE**

## ATTACK CHECKS

**ATTACK CHECK = D20 + ATTACK BONUS + MODIFIERS VS. DEFENSE CLASS**

## SIZE RANK MODIFIERS

SIZE RANK	HEIGHT/ LENGTH	ACTIVE DEFENSE	STEALTH	INTIMIDATION	STR	STA	SPEED
3	250 feet	-10	-20	+10	+20	+20	+2
2	120 feet	-8	-16	+8	+16	+16	+2
1	60 feet	-6	-12	+6	+12	+12	+1
0	30 feet	-4	-8	+4	+8	+8	+1
-1	15 feet	-2	-4	+2	+4	+4	+0
-2	6 feet	0	0	0	0	0	+0
-3	3 feet	+2	+4	-2	-1	0	+0
-4	1 foot	+4	+8	-4	-2	0	-1
-5	6 inches	+6	+12	-6	-3	0	-1
-6	3 inches	+8	+16	-8	-4	0	-2
-7	1 inch	+10	+20	-10	-5	0	-2

## DIFFICULTY CLASS EXAMPLES

DIFFICULTY	DC	EXAMPLE	MODIFIER NEEDED FOR 55%
Very easy	0	See something large in plain sight	None (automatic)
Easy	5	Climb a knotted rope	-5 (Athletics)
Average	10	Hear a group walking 30 feet away	+0 (Awareness)
Tough	15	Disarm an explosive	+5 (Technology)
Challenging	20	Walk a tightrope	+10 (Acrobatics)
Formidable	25	Break into a secure computer system	+15 (Technology)
Heroic	30	Overcome a sophisticated security system	+20 (Technology)
Super-Heroic	35	Bluff your way past wary and alert guards	+25 (Deception)
Nearly Impossible	40	Open an impossibly complex lock in 1 round	+30 (Technology)

## CRITICAL HITS AND MISSES

A natural 1 on the die on an attack check always misses. A natural 20 on the die on an attack check always hits, no matter the target's defense. If the attacker's total attack check is enough to hit the target's defense you add one of three effects:

- **Increased Effect:** +5 bonus to your attack's effect rank.
- **Added Effect:** Adds another effect of your choice with a resistance DC of 10 (or 15 for a Damage effect) against which the target must make a separate resistance check.
- **Alternate Effect:** The attacker can choose alternate effect for the attack (without using Extra Effort).

## DEFENSES

Your **defenses** determine how difficult it is to hit you with various attacks. Most attacks target your active defenses, Dodge and Parry; close attacks target Parry while ranged attacks target Dodge.

$$\text{DEFENSE CLASS} = \text{DEFENSE} + 10$$

## RESISTANCE CHECKS

A resistance check is a d20 roll + the appropriate defense (typically Dodge, Fortitude, Toughness, or Will).

$$\text{RESISTANCE CHECK} = \text{D20} + \text{DEFENSE BONUS} + \text{MODIFIERS VS. EFFECT RANK} + 10, \text{ OR } 15 \text{ FOR DAMAGE}$$

## MINIONS

- Minions cannot score critical hits against non-minions.
- Non-minions can make attack checks against minions as routine checks.
- If a minion fails a resistance check, the minion suffers the worst degree of the effect. So a minion failing a Damage resistance check, for example, is incapacitated, regardless of the degree of failure.
- Certain traits (like the Takedown advantage) are more effective against or specifically target minions.

## DAMAGE RESISTANCE CHECK

### TOUGHNESS VS. [DAMAGE RANK + 15]

**Success:** The damage has no effect.

**Failure (one degree):** The target has a -1 circumstance penalty to further resistance checks against damage.

**Failure (two degrees):** The target is dazed until the end of their next turn and has a -1 circumstance penalty to further checks against damage.

**Failure (three degrees):** The target is staggered and has a -1 circumstance penalty to further checks against damage. If the target is staggered again (three degrees of failure on a Damage resistance check), apply the fourth degree of effect. The staggered condition remains until the target recovers (see **Recovery**, page 199).

**Failure (four degrees):** The target is incapacitated.

## RANGE AND RANGE MODIFIERS

-	<b>Close Range</b> = Able to physically reach
-0	<b>Short Range</b> = Effect Rank x 25 feet
-2	<b>Medium Range</b> = Effect Rank x 50 feet
-5	<b>Long Range</b> = Effect Rank x 100 feet
-	<b>Perception Range</b> = Able to accurately perceive

## CONCEALMENT & COVER

-2	<b>Partial Concealment</b> = Dim Lighting, Foliage, Heavy Precipitation, Fog, Smoke, etc.
-5	<b>Total Concealment</b> = Total Darkness, Heavy Smoke or Fog, etc.
-2	<b>Partial Cover</b> = About the half the target is behind cover
-5	<b>Total Cover</b> = Three-quarters or more of the target is behind cover

Cover grants a circumstance bonus to Dodge resistance checks against area effects equal to its penalty to attack checks.

## DEGREES OF SUCCESS AND FAILURE

CHECK RESULT = OR > THAN	DEGREE	EQUAL OR GREATER THAN ... (DC 20)
DC+15	Four (Success)	35
DC+10	Three (Success)	30
DC+5	Two (Success)	25
DC	One (Success)	20
DC-5	One (Failure)	15
DC-10	Two (Failure)	10
DC-15	Three (Failure)	5
DC-20	Four (Failure)	0

## OPPOSED CHECK EXAMPLES

TASK	SKILL	OPPOSED BY
Sneak up on someone	Stealth	Perception
Con someone	Deception	Insight
Win a car race	Vehicles	Vehicles
Pretend to be someone else	Deception	Perception
Steal a key chain unnoticed	Sleight of Hand	Perception
Win a trivia contest	Expertise	Expertise
Break computer security	Technology	Technology

## HERO POINTS

Spending a hero point is a reaction, takes no time, and players can spend as many as they have.

- **Edit Scene:** Edit a scene to grant your hero an advantage by adding or changing certain details. GM has veto power.
- **Heroic Feat:** Gain the benefits of one rank of an advantage you don't already have until the end of your next turn. Must meet all prerequisites. Cannot gain Fortune advantages.
- **Improve Roll:** Re-roll any die roll and take the better of the two rolls. On a result of 1-10 on the second roll, add 10 to the result, an 11 or higher remains as-is. You cannot spend a hero point to make the GM or other players re-roll (without the Luck Control effect).
- **Inspiration:** You get a sudden inspiration in the form of a hint, clue, or a bit of help from the GM. It's up to the GM to determine how much help the hero point supplies, but it should be *worth* a hero point.
- **Instant Counter:** Can attempt to counter an effect used against you as a reaction (see **Countering Effects** in the **Powers** chapter of the *Hero's Handbook*).
- **Recover:** Allows you to immediately, without taking an action, remove a dazed, fatigued, or stunned condition, or convert an exhausted condition into a fatigued condition, or use extra effort without suffering fatigue.

## ACTIONS & MANUEVERS

ACTION/MANUEVER	ATTACK	DEFENSE	TYPE	EFFECT
Aid	-	-	Std	Close; Attack check (DC 10) grants ally +2 on attack
Aim	+5	-	Std	Close or Ranged; +2 bonus if longer than close range
Charge	-2	-	Std	Close; Speed rank in straight line, then attack
Defend	-	-	Std	Make an opposed check vs. attack, add 10 to roll of 10 or less
Disarm	-2	-	Std	Close; -5 at range; opposed check Damage vs. target's STR
Escape	-	-	Mve	Opposed Athletics or Sleight of Hand vs. opponent's routine STR or grab effect
Grab	-	-	Std	Attack check, if successful, target resists with STR or Dodge; see <b>Grab</b> p. 196
Recover	-	+2	Std	Remove highest level of damage or fatigue, or make resistance check; one per combat
Smash	-	-	Std	-5 attack if vs. a held object
Trip	-2	-	Std	Attack vs. Parry, if successful make opposed Acrobatics or Athletics vs. target's Acrobatics or Athletics; defender is prone
Accurate Attack	+1 or 2	-	Std	-1 or 2 to Effect
All-out Attack	+1 or 2	-1 or 2	Std	
Defensive Attack	-1 or 2	+1 or 2	Std	
Demoralize	-	-	Std	Opposed by better of Insight or Will. Success = Target impaired (-2 circumstance penalty), four or more degrees of success means target disabled (-5 circumstance penalty), until the end of your next round.
Feint	-	-	Std	Opposed by better of Deception or Insight. Success = Target is vulnerable against your next attack, until the end of your next round.
Finishing Attack	-	-	Std	Auto hit or attack vs. DC 10, if successful treat as a crit.
Power Attack	-1 or 2	-	Std	+1 or 2 to Effect
Slam Attack	-1 or 2	+1 or 2	Std	Charge, Damage is Damage or Speed ranks +1, full-speed is +2; you make Toughness check vs. 1/2 damage (round down)
Team Attack	-	-	Std	Must be simultaneous, must be vs. same defense, see page 199

### EXTRA EFFORT

Allows a hero to perform feats beyond even their amazing abilities. Players simply declare their heroes are doing so. Extra effort is a free action and can be performed at any time during the hero's turn, but only once per turn. Using extra effort nets one of the following benefits:

- **Action:** Gain an additional standard action during your turn, which may be exchanged for a move or free action.
- **Bonus:** Perform one check with a bonus (+2 circumstance bonus), or improve an existing bonus to a major bonus (+5 circumstance bonus). Or negate a penalty (-2 circumstance penalty), or reduce a major penalty from -5 to -2.
- **Power:** Increase one of your hero's power effects by +1 rank until the start of the hero's next turn. Not usable on Permanent effects.
- **Speed:** Increase your hero's speed rank by +1 until the start of the hero's next turn.

- **Power Stunt:** Gain an Alternate Effect that lasts until the end of the scene or until its duration expires, whichever comes first. Not usable on Permanent effects.
- **Resistance:** Gain an immediate additional resistance check against an ongoing effect. If compelled or controlled, the hero doesn't suffer fatigue until free of the effect.
- **Retry:** Certain effects *require* extra effort to retry after a certain degree of failure. This extra effort merely permits another attempt to use the effect; it grants no other benefits.
- **Strength:** Increase your hero's Strength rank by +1 until the start of the hero's next turn.

**Cost of Extra Effort:** At the start of the turn immediately after using extra effort, the becomes fatigued. A hero who's already fatigued becomes exhausted, and an exhausted hero becomes incapacitated. This fatigue may be negated by spending a hero point.

# MUTANTS & MASTERMINDS™

### BASIC CONDITIONS

- **COMPELLED:** Single standard action determined by another.
- **CONTROLLED:** Another character determines actions.
- **DAZED:** May only take a single standard action.
- **DEBILITATED:** One or more abilities at -5.
- **DEFENSELESS:** Active defenses equal 0, often prone. *Supersedes vulnerable.*
- **DISABLED:** -5 penalty on checks. *Supersedes impaired.*
- **FATIGUED:** Hindered, recover after 1 hour of rest.
- **HINDERED:** Move at -1 speed rank.
- **IMMOBILE:** Have no movement speed, cannot move, but can take actions. *Supersedes hindered.*
- **IMPAIRED:** -2 penalty on checks.
- **NORMAL:** Unaffected by other conditions.
- **STUNNED:** Cannot take actions.
- **TRANSFORMED:** Traits altered by an outside agent. Depends on effect.
- **UNAWARE:** Unable to make interaction or Perception checks or perform actions based on them.
- **VULNERABLE:** Active defenses are halved (round up).
- **WEAKENED:** Temporarily lost power points in a trait. Depends on effect.

### COMBINED CONDITIONS

- **ASLEEP:** Defenseless, stunned, and unaware.
- **BLIND:** Hindered, visually unaware, vulnerable, may be impaired or disabled for visual tasks.
- **BOUND:** Defenseless, immobile, and impaired.
- **DEAF:** Auditory unaware.
- **DYING:** Incapacitated. May die (see **Dying** in the *Hero's Handbook*).
- **ENTRANCED:** Stunned, but may only pay attention to entrancing effect. Breaks free if threatened or from allies interaction skill check (DC 10+effect rank).
- **EXHAUSTED:** Impaired and hindered, recover after 1 hour of rest.
- **INCAPACITATED:** Defenseless, stunned, and unaware. Usually prone.
- **PARALYZED:** Defenseless, immobile, and physically stunned; may be able to take mental actions.
- **PRONE:** Hindered, -5 penalty on close attack checks, +5 bonus to attacker's close attack checks, but -5 penalty to attacker's ranged attack checks. Move action to stand.
- **RESTRAINED:** Hindered and vulnerable, immobile if restraints are anchored.
- **STAGGERED:** Dazed and hindered.
- **SURPRISED:** Stunned and vulnerable.