

Carrying Capacity

These carrying capacity rules determine how much a character's equipment slows him down. Encumbrance comes in two parts: encumbrance by armor and encumbrance by total weight.

Encumbrance by Armor: A character's armor determines his maximum Dexterity bonus to AC, armor check penalty, speed, and running speed. Unless your character is weak or carrying a lot of gear, that's all you need to know; the extra gear your character carries won't slow him down any more than the armor already does.

If your character is weak or carrying a lot of gear, however, then you'll need to calculate encumbrance by weight. Doing so is most important when your character is trying to carry some heavy object.

Carrying Capacity			
Strength Score	Light Load	Medium Load	Heavy Load
1	3 lbs. or less	4–6 lbs.	7–10 lbs.
2	6 lbs. or less	7–13 lbs.	14–20 lbs.
3	10 lbs. or less	11–20 lbs.	21–30 lbs.
4	13 lbs. or less	14–26 lbs.	27–40 lbs.
5	16 lbs. or less	17–33 lbs.	34–50 lbs.
6	20 lbs. or less	21–40 lbs.	41–60 lbs.
7	23 lbs. or less	24–46 lbs.	47–70 lbs.
8	26 lbs. or less	27–53 lbs.	54–80 lbs.
9	30 lbs. or less	31–60 lbs.	61–90 lbs.
10	33 lbs. or less	34–66 lbs.	67–100 lbs.
11	38 lbs. or less	39–76 lbs.	77–115 lbs.
12	43 lbs. or less	44–86 lbs.	87–130 lbs.
13	50 lbs. or less	51–100 lbs.	101–150 lbs.
14	58 lbs. or less	59–116 lbs.	117–175 lbs.
15	66 lbs. or less	67–133 lbs.	134–200 lbs.
16	76 lbs. or less	77–153 lbs.	154–230 lbs.
17	86 lbs. or less	87–173 lbs.	174–260 lbs.
18	100 lbs. or less	101–200 lbs.	201–300 lbs.
19	116 lbs. or less	117–233 lbs.	234–350 lbs.
20	133 lbs. or less	134–266 lbs.	267–400 lbs.
21	153 lbs. or less	154–306 lbs.	307–460 lbs.
22	173 lbs. or less	174–346 lbs.	347–520 lbs.
23	200 lbs. or less	201–400 lbs.	401–600 lbs.
24	233 lbs. or less	234–466 lbs.	467–700 lbs.
25	266 lbs. or less	267–533 lbs.	534–800 lbs.
26	306 lbs. or less	307–613 lbs.	614–920 lbs.
27	346 lbs. or less	347–693 lbs.	694–1,040 lbs.
28	400 lbs. or less	401–800 lbs.	801–1,200 lbs.
29	466 lbs. or less	467–933 lbs.	934–1,400 lbs.

Encumbrance by Weight

If you want to determine whether your character's gear is heavy enough to slow him down more than his armor already does, total the weight of all the character's items, including armor, weapons, and gear.

Compare this total to the character's Strength on Table: Carrying Capacity. Depending on the character's carrying capacity, he or she may be carrying a light, medium, or heavy load. Like armor, a character's load affects his maximum Dexterity bonus to AC, carries a check penalty (which works like an armor check penalty), reduces the character's speed, and affects how fast the character can run, as shown on Table: Encumbrance Effects. A medium or heavy load counts as medium or heavy armor for the purpose of abilities or skills that are restricted by armor. Carrying a light load does not encumber a character.

If your character is wearing armor, use the worse figure (from armor or from load) for each category. Do not stack the penalties.

Encumbrance Effects					
Load	Max Dex	Check Penalty	Speed		Run
			(30 ft.)	(20 ft.)	
Medium	+3	−3	20 ft.	15 ft.	×4
Heavy	+1	−6	20 ft.	15 ft.	×3

Lifting and Dragging

A character can lift as much as his maximum load over his head. A character's maximum load is the highest amount of weight listed for a character's Strength in the heavy load column of Table: Carrying Capacity.

A character can lift as much as double his maximum load off the ground, but he or she can only stagger around with it. While overloaded in this way, the character loses any Dexterity bonus to AC and can move only 5 feet per round (as a full-round action).

A character can generally push or drag along the ground as much as five times his maximum load. Favorable conditions can double these numbers, and bad circumstances can reduce them by half or more.

Bigger and Smaller Creatures

The figures on Table: Carrying Capacity are for Medium bipedal creatures. A larger bipedal creature can carry more weight depending on its size category, as follows: Large ×2, Huge ×4, Gargantuan ×8, Colossal ×16. A smaller creature can carry less weight depending on its size category, as follows: Small ×3/4, Tiny ×1/2, Diminutive ×1/4, Fine ×1/8.

Quadrupeds can carry heavier loads than bipeds can. Multiply the values corresponding to the

creature's Strength score from Table: Carrying Capacity by the appropriate modifier, as follows: Fine $\times 1/4$, Diminutive $\times 1/2$, Tiny $\times 3/4$, Small $\times 1$, Medium $\times 1\text{-}1/2$, Large $\times 3$, Huge $\times 6$, Gargantuan $\times 12$, Colossal $\times 24$.

Tremendous Strength

For Strength scores not shown on Table: Carrying Capacity, find the Strength score between 20 and 29 that has the same number in the "ones" digit as the creature's Strength score does and multiply the numbers in that row by 4 for every 10 points the creature's Strength is above the score for that row.

Armor and Encumbrance for Other Base Speeds

The table below provides reduced speed figures for all base speeds from 5 feet to 120 feet (in 5-foot increments).

Base Speed	Reduced Speed
5 ft.	5 ft.
10 ft.–15 ft.	10 ft.
20 ft.	15 ft.
25 ft.–30 ft.	20 ft.
35 ft.	25 ft.
40 ft.–45 ft.	30 ft.
50 ft.	35 ft.
55 ft.–60 ft.	40 ft.
65 ft.	45 ft.
70 ft.–75 ft.	50 ft.
80 ft.	55 ft.
85 ft.–90 ft.	60 ft.
95 ft.	65 ft.
100 ft.–105 ft.	70 ft.
110 ft.	75 ft.
115 ft.–120 ft.	80 ft.

Movement

There are three movement scales, as follows:

- Tactical, for combat, measured in feet (or 5-foot squares) per round.
- Local, for exploring an area, measured in feet per minute.
- Overland, for getting from place to place, measured in miles per hour or miles per day.

Modes of Movement

While moving at the different movement scales, creatures generally walk, hustle, or run.

Walk: A walk represents unhurried but purposeful movement (3 miles per hour for an unencumbered adult human).

Hustle: A hustle is a jog (about 6 miles per hour for an unencumbered human). A character moving his speed twice in a single round, or moving that speed in the same round that he or she performs a standard action or another move action, is hustling when he or she moves.

Run (×3): Moving three times speed is a running pace for a character in heavy armor (about 7 miles per hour for a human in full plate).

Run (×4): Moving four times speed is a running pace for a character in light, medium, or no armor (about 12 miles per hour for an unencumbered human, or 9 miles per hour for a human in chainmail) See Table: Movement and Distance for details.

Movement and Distance				
Speed	15 feet	20 feet	30 feet	40 feet
One Round (Tactical)*				
Walk	15 ft.	20 ft.	30 ft.	40 ft.
Hustle	30 ft.	40 ft.	60 ft.	80 ft.
Run (×3)	45 ft.	60 ft.	90 ft.	120 ft.
Run (×4)	60 ft.	80 ft.	120 ft.	160 ft.
One Minute (Local)				
Walk	150 ft.	200 ft.	300 ft.	400 ft.
Hustle	300 ft.	400 ft.	600 ft.	800 ft.
Run (×3)	450 ft.	600 ft.	900 ft.	1,200 ft.
Run (×4)	600 ft.	800 ft.	1,200 ft.	1,600 ft.
One Hour (Overland)				
Walk	1-1/2 miles	2 miles	3 miles	4 miles
Hustle	3 miles	4 miles	6 miles	8 miles
Run	—	—	—	—
One Day (Overland)				
Walk	12 miles	16 miles	24 miles	32 miles
Hustle	—	—	—	—
Run	—	—	—	—
* Tactical movement is often measured in squares on the battle grid (1 square = 5 feet) rather than feet.				

Tactical Movement

Tactical movement is used for combat. Characters generally don't walk during combat, for obvious reasons—they hustle or run instead. A character who moves his speed and takes some action is hustling for about half the round and doing something else the other half.

Hampered Movement	
Condition	Additional Movement Cost
Difficult terrain	×2
Obstacle*	×2
Poor visibility	×2
Impassable	—
* May require a skill check	

Hampered Movement

Difficult terrain, obstacles, and poor visibility can hamper movement (see Table: Hampered Movement for details). When movement is hampered, each square moved into usually counts as two squares, effectively reducing the distance that a character can cover in a move.

If more than one hampering condition applies, multiply all additional costs that apply. This is a specific exception to the normal rule for doubling.

In some situations, your movement may be so hampered that you don't have sufficient speed even to move 5 feet (1 square). In such a case, you may use a full-round action to move 5 feet (1 square) in any direction, even diagonally. Even though this looks like a 5-foot step, it's not, and thus it provokes attacks of opportunity normally. (You can't take advantage of this rule to move through impassable terrain or to move when all movement is prohibited to you.)

You can't run or charge through any square that would hamper your movement.

Local Movement

Characters exploring an area use local movement, measured in feet per minute.

Walk: A character can walk without a problem on the local scale.

Hustle: A character can hustle without a problem on the local scale. See Overland Movement, below, for movement measured in miles per hour.

Run: A character can run for a number of rounds equal to his Constitution score on the local scale without needing to rest. See Combat for rules covering extended periods of running.

Terrain and Overland Movement			
Terrain	Highway	Road or Trail	Trackless
Desert, sandy	×1	×1/2	×1/2
Forest	×1	×1	×1/2
Hills	×1	×3/4	×1/2
Jungle	×1	×3/4	×1/4
Moor	×1	×1	×3/4
Mountains	×3/4	×3/4	×1/2
Plains	×1	×1	×3/4
Swamp	×1	×3/4	×1/2
Tundra, frozen	×1	×3/4	×3/4

Overland Movement

Characters covering long distances cross-country use overland movement. Overland movement is measured in miles per hour or miles per day. A day represents 8 hours of actual travel time. For rowed watercraft, a day represents 10 hours of rowing. For a sailing ship, it represents 24 hours.

Walk: A character can walk 8 hours in a day of travel without a problem. Walking for longer than that can wear him out (see Forced March, below).

Hustle: A character can hustle for 1 hour without a problem. Hustling for a second hour in between sleep cycles deals 1 point of nonlethal damage, and each additional hour deals twice the damage taken during the previous hour of hustling. A character who takes any nonlethal damage from hustling becomes fatigued.

A fatigued character can't run or charge and takes a penalty of –2 to Strength and Dexterity. Eliminating the nonlethal damage also eliminates the fatigue.

Run: A character can't run for an extended period of time. Attempts to run and rest in cycles effectively work out to a hustle.

Terrain: The terrain through which a character travels affects the distance he can cover in an hour or a day (see Table: Terrain and Overland Movement). A highway is a straight, major, paved road. A road is typically a dirt track. A trail is like a road, except that it allows only single-file travel and does not benefit a party traveling with vehicles. Trackless terrain is a wild area with no paths.

Forced March: In a day of normal walking, a character walks for 8 hours. The rest of the daylight time is spent making and breaking camp, resting, and eating.

A character can walk for more than 8 hours in a day by making a forced march. For each hour of marching beyond 8 hours, a Constitution check (DC 10, +2 per extra hour) is required. If the check fails, the character takes 1d6 points of nonlethal damage. A character who takes any nonlethal

damage from a forced march becomes fatigued. Eliminating the nonlethal damage also eliminates the fatigue. It's possible for a character to march into unconsciousness by pushing himself too hard.

Mounted Movement: A mount bearing a rider can move at a hustle. The damage it takes when doing so, however, is lethal damage, not nonlethal damage. The creature can also be ridden in a forced march, but its Constitution checks automatically fail, and the damage it takes is lethal damage.

Mounts also become fatigued when they take any damage from hustling or forced marches. See Table: Mounts and Vehicles: Mounts and Vehicles for mounted speeds and speeds for vehicles pulled by draft animals.

Waterborne Movement: See Table: Mounts and Vehicles: Mounts and Vehicles for speeds for water vehicles.

Mounts and Vehicles		
Mount/Vehicle	Per Hour	Per Day
Mount (carrying load)		
Light horse	5 miles	40 miles
Light horse (175–525 lbs.) ¹	3 1/2 miles	28 miles
Heavy horse	5 miles	40 miles
Heavy horse (229–690 lbs.) ¹	3-1/2 miles	28 miles
Pony	4 miles	32 miles
Pony (151–450 lbs.) ¹	3 miles	24 miles
Dog, riding	4 miles	32 miles
Dog, riding (101–300 lbs.) ¹	3 miles	24 miles
Cart or wagon	2 miles	16 miles
Ship		
Raft or barge (poled or towed) ²	1/2 mile	5 miles
Keelboat (rowed) ²	1 mile	10 miles
Rowboat (rowed) ²	1-1/2 miles	15 miles
Sailing ship (sailed)	2 miles	48 miles
Warship (sailed and rowed)	2-1/2 miles	60 miles
Longship (sailed and rowed)	3 miles	72 miles
Galley (rowed and sailed)	4 miles	96 miles

1 Quadrupeds, such as horses, can carry heavier loads than characters can. See *Carrying Capacity* for more information.

2 Rafts, barges, keelboats, and rowboats are most often used on lakes and rivers. If going downstream, add the speed of the current (typically 3 miles per hour) to the speed of the vehicle. In addition to 10 hours of being rowed, the vehicle can also float an additional 14 hours, if someone can guide it, adding an additional 42 miles to the daily distance traveled. These vehicles can't be rowed against any significant current, but they can be pulled upstream by draft animals on the shores.

Evasion and Pursuit

In round-by-round movement, when simply counting off squares, it's impossible for a slow character to get away from a determined fast character without mitigating circumstances. Likewise,

it's no problem for a fast character to get away from a slower one.

When the speeds of the two concerned characters are equal, there's a simple way to resolve a chase: If one creature is pursuing another, both are moving at the same speed, and the chase continues for at least a few rounds, have them make opposed Dexterity checks to see who is the faster over those rounds. If the creature being chased wins, it escapes. If the pursuer wins, it catches the fleeing creature.

Sometimes a chase occurs overland and could last all day, with the two sides only occasionally getting glimpses of each other at a distance. In the case of a long chase, an opposed Constitution check made by all parties determines which can keep pace the longest. If the creature being chased rolls the highest, it gets away. If not, the chaser runs down its prey, outlasting it with stamina.

Exploration

Few rules are as vital to the success of adventurers than those pertaining to vision, lighting, and how to break things. Rules for each of these are explained below.

Vision and Light

Dwarves and half-orcs have darkvision, but the other races presented in Races need light to see by. See Table: Light Sources and Illumination for the radius that a light source illuminates and how long it lasts. The increased entry indicates an area outside the lit radius in which the light level is increased by one step (from darkness to dim light, for example).

Light Sources and Illumination			
Object	Normal	Increased	Duration
Candle	n/a ¹	5 ft.	1 hr.
<i>Everburning torch</i>	20 ft.	40 ft.	Permanent
Lamp, common	15 ft.	30 ft.	6 hr./pint
Lantern, bullseye	60-ft. cone	120-ft. cone	6 hr./pint
Lantern, hooded	30 ft.	60 ft.	6 hr./pint
Sunrod	30 ft.	60 ft.	6 hr.
Torch	20 ft.	40 ft.	1 hr.
Spell	Normal	Increased	Duration
<i>Continual flame</i>	20 ft.	40 ft.	Permanent
<i>Dancing lights</i> (torches)	20 ft. (each)	40 ft. (each)	1 min.
<i>Daylight</i>	60 ft. ²	120 ft.	10 min./level
<i>Light</i>	20 ft.	40 ft.	10 min./level

1 A candle does not provide normal illumination, only dim illumination.

2 The light for a daylight spell is bright light.

In an area of bright light, all characters can see clearly. Some creatures, such as those with light

sensitivity and light blindness, take penalties while in areas of bright light. A creature can't use Stealth in an area of bright light unless it is invisible or has cover. Areas of bright light include outside in direct sunshine and inside the area of a daylight spell.

Normal light functions just like bright light, but characters with light sensitivity and light blindness do not take penalties. Areas of normal light include underneath a forest canopy during the day, within 20 feet of a torch, and inside the area of a light spell.

In an area of dim light, a character can see somewhat. Creatures within this area have concealment (20% miss chance in combat) from those without darkvision or the ability to see in darkness. A creature within an area of dim light can make a Stealth check to conceal itself. Areas of dim light include outside at night with a moon in the sky, bright starlight, and the area between 20 and 40 feet from a torch.

In areas of darkness, creatures without darkvision are effectively blinded. In addition to the obvious effects, a blinded creature has a 50% miss chance in combat (all opponents have total concealment), loses any Dexterity bonus to AC, takes a –2 penalty to AC, and takes a –4 penalty on Perception checks that rely on sight and most Strength- and Dexterity-based skill checks. Areas of darkness include an unlit dungeon chamber, most caverns, and outside on a cloudy, moonless night.

Characters with low-light vision (elves, gnomes, and half-elves) can see objects twice as far away as the given radius. Double the effective radius of bright light, normal light, and dim light for such characters.

Characters with darkvision (dwarves and half-orcs) can see lit areas normally as well as dark areas within 60 feet. A creature can't hide within 60 feet of a character with darkvision unless it is invisible or has cover.

Breaking and Entering

When attempting to break an object, you have two choices: smash it with a weapon or break it with sheer strength.

Size and Armor Class of Objects	
Size	AC Modifier
Colossal	–8
Gargantuan	–4
Huge	–2
Large	–1
Medium	+0
Small	+1
Tiny	+2
Diminutive	+4
Fine	+8

Substance Hardness and Hit Points

Substance	Hardness	Hit Points
Glass	1	1/in. of thickness
Paper or cloth	0	2/in. of thickness
Rope	0	2/in. of thickness
Ice	0	3/in. of thickness
Leather or hide	2	5/in. of thickness
Wood	5	10/in. of thickness
Stone	8	15/in. of thickness
Iron or steel	10	30/in. of thickness
Mithral	15	30/in. of thickness
Adamantine	20	40/in. of thickness

Object Hardness and Hit Points

Object	Hardness	Hit Points	Break DC
Rope (1 in. diameter)	0	2	23
Simple wooden door	5	10	13
Small chest	5	1	17
Good wooden door	5	15	18
Treasure chest	5	15	23
Strong wooden door	5	20	23
Masonry wall (1 ft. thick)	8	90	35
Hewn stone (3 ft. thick)	8	540	50
Chain	10	5	26
Manacles	10	10	26
Masterwork manacles	10	10	28
Iron door (2 in. thick)	10	60	28

Table: DCs to Break or Burst Items

Strength Check to:	DC
Break down simple door	13
Break down good door	18
Break down strong door	23
Burst rope bonds	23
Bend iron bars	24
Break down barred door	25
Burst chain bonds	26
Break down iron door	28
Condition	DC Adjustment*
Hold portal	+5
Arcane lock	+10
<i>* If both apply, use the larger number.</i>	

Smashing an Object

Smashing a weapon or shield with a slashing or bludgeoning weapon is accomplished with the sunder combat maneuver (see Combat). Smashing an object is like sundering a weapon or shield, except that your combat maneuver check is opposed by the object's AC. Generally, you can smash an object only with a bludgeoning or slashing weapon.

Armor Class: Objects are easier to hit than creatures because they don't usually move, but many are tough enough to shrug off some damage from each blow. An object's Armor Class is equal to 10 + its size modifier (see Table: Size and Armor Class of Objects) + its Dexterity modifier. An inanimate object has not only a Dexterity of 0 (–5 penalty to AC), but also an additional –2 penalty to its AC. Furthermore, if you take a full-round action to line up a shot, you get an automatic hit with a melee weapon and a +5 bonus on attack rolls with a ranged weapon.

Hardness: Each object has hardness—a number that represents how well it resists damage. When an object is damaged, subtract its hardness from the damage. Only damage in excess of its hardness is deducted from the object's hit points (see Table: Common Armor, Weapon, and Shield Hardness and Hit Points, Table: Substance Hardness and Hit Points, and Table: Object Hardness and Hit Points).

Hit Points: An object's hit point total depends on what it is made of and how big it is (see Table: Common Armor, Weapon, and Shield Hardness and Hit Points, Table: Substance Hardness and Hit Points, and Table: Object Hardness and Hit Points). Objects that take damage equal to or greater than half their total hit points gain the broken condition (see Conditions). When an object's hit points reach 0, it's ruined.

Very large objects have separate hit point totals for different sections.

Energy Attacks: Energy attacks deal half damage to most objects. Divide the damage by 2 before applying the object's hardness. Some energy types might be particularly effective against certain objects, subject to GM discretion. For example, fire might do full damage against parchment, cloth, and other objects that burn easily. Sonic might do full damage against glass and crystal objects.

Ranged Weapon Damage: Objects take half damage from ranged weapons (unless the weapon is a siege engine or something similar). Divide the damage dealt by 2 before applying the object's hardness.

Ineffective Weapons: Certain weapons just can't effectively deal damage to certain objects. For example, a bludgeoning weapon cannot be used to damage a rope. Likewise, most melee weapons have little effect on stone walls and doors, unless they are designed for breaking up stone, such as a pick or hammer.

Immunities: Objects are immune to nonlethal damage and to critical hits.

Magic Armor, Shields, and Weapons: Each +1 of enhancement bonus adds 2 to the hardness of armor, a weapon, or a shield, and +10 to the item's hit points.

Vulnerability to Certain Attacks: Certain attacks are especially successful against some objects. In such cases, attacks deal double their normal damage and may ignore the object's hardness.

Damaged Objects: A damaged object remains functional with the broken condition until the item's hit points are reduced to 0, at which point it is destroyed.

Damaged (but not destroyed) objects can be repaired with the Craft skill and a number of spells. Saving Throws: Nonmagical, unattended items never make saving throws. They are considered to have failed their saving throws, so they are always fully affected by spells and other attacks that allow saving throws to resist or negate. An item attended by a character (being grasped, touched, or worn) makes saving throws as the character (that is, using the character's saving throw bonus).

Magic items always get saving throws. A magic item's Fortitude, Reflex, and Will save bonuses are equal to 2 + half its caster level. An attended magic item either makes saving throws as its owner or uses its own saving throw bonus, whichever is better.

Animated Objects: Animated objects count as creatures for purposes of determining their Armor Class (do not treat them as inanimate objects).

Breaking Items

When a character tries to break or burst something with sudden force rather than by dealing damage, use a Strength check (rather than an attack roll and damage roll, as with the sunder special attack) to determine whether he succeeds. Since hardness doesn't affect an object's break DC, this value depends more on the construction of the item than on the material the item is made of. Consult Table: DCs to Break or Burst Items for a list of common break Dcs.

If an item has lost half or more of its hit points, the item gains the broken condition (see Conditions) and the DC to break it drops by 2.

Larger and smaller creatures get size bonuses and size penalties on Strength checks to break open doors as follows: Fine –16, Diminutive –12, Tiny –8, Small –4, Large +4, Huge +8, Gargantuan +12, Colossal +16.

A crowbar or portable ram improves a character's chance of breaking open a door (see Equipment).

Common Armor, Weapon, and Shield Hardness and Hit Points

Weapon or Shield	Hardness ¹	Hit Points ^{2, 3}
Light blade	10	2
One-handed blade	10	5
Two-handed blade	10	10
Light metal-hafted weapon	10	10
One-handed metal-hafted weapon	10	20
Light hafted weapon	5	2
One-handed hafted weapon	5	5
Two-handed hafted weapon	5	10
Projectile weapon	5	5
Armor	special ⁴	armor bonus × 5
Buckler	10	5
Light wooden shield	5	7
Heavy wooden shield	5	15
Light steel shield	10	10
Heavy steel shield	10	20
Tower shield	5	20

1 Add +2 for each +1 enhancement bonus of magic items.

2 The hp value given is for Medium armor, weapons, and shields. Divide by 2 for each size category of the item smaller than Medium, or multiply it by 2 for each size category larger than Medium.

3 Add 10 hp for each +1 enhancement bonus of magic items.

4 Varies by material; see Table: Substance Hardness and Hit Points.