## Optional Rule: Diagonals

The Player's Handbook presents a simple method for counting movement and measuring range on a grid: count every square as 5 feet, even if you're moving diagonally. Though this is fast in play, it breaks the laws of geometry and is inaccurate over long distances. This optional rule provides more realism, but it requires more effort during combat.

When measuring range or moving diagonally on a grid, the first diagonal square counts as 5 feet, but the second diagonal square counts as 10 feet. This pattern of 5 feet and then 10 feet continues whenever you're counting diagonally, even if you move horizontally or vertically between different bits of diagonal movement. For example, a character might move one square diagonally ( 5 feet), then three squares straight ( 15 feet), and then another square diagonally ( 10 feet) for a total movement of 30 feet.

## Optional Rule: Facing

If you want the precision of knowing which way a creature is facing, consider using this optional rule.

Whenever a creature ends its move, it can change its facing. Each creature has a front arc (the direction it faces), left and right side arcs, and a rear arc. A creature can also change its facing as a reaction when any other creature moves.

A creature can normally target only creatures in its front or side arcs. It can't see into its rear arc. This means an attacker in the creature's rear arc makes attack rolls against it with advantage.

Shields apply their bonus to AC only against attacks from the front arc or the same side arc as the shield. For example, a fighter with a shield on the left arm can use it only against attacks from the front and left arcs.

Feel free to determine that not all creatures have every type of arc. For example, an amorphous ochre jelly could treat all of its arcs as front ones, while a hydra might have three front arcs and one rear one.

On squares, you pick one side of a creature's space as the direction it is facing. Draw a diagonal line outward from each corner of this side to determine the squares in its front arc. The opposite side of the space determines its rear arc in the same way. The remaining spaces to either side of the creature form its side arcs.

On hexes, determining the front, rear, and side arcs requires more judgment. Pick one side of the creature's space and create a wedge shape expanding out from there for the front arc, and another on the opposite side of the creature for the rear arc. The remaining spaces to either side of the creature are its side arcs.

A square or hex might be in more than one arc, depending on how you draw the lines from a creature's space. If more than half of a square or hex lies in one arc, it is in that arc. If it is split exactly down the middle, use this rule: if half of it lies in the front arc, it's in that arc. If half of it is in a side arc and the rear arc, it's in the side arc.

## Adjudicating Reaction Timing

Typical combatants rely on the opportunity attack and the Ready action for most of their reactions in a fight. Various spells and features give a creature more reaction options, and sometimes the timing of a reaction can be difficult to adjudicate. Use this rule of thumb: follow whatever timing is specified in the reaction's description. For example, the opportunity attack and the shield spell are clear about the fact that they can interrupt their triggers. If a reaction has no timing specified, or the timing is unclear, the reaction occurs after its trigger finishes, as in the Ready action.

## Chases

Strict application of the movement rules can turn a potentially exciting chase into a dull, predictable affair. Faster creatures always catch up to slower ones, while creatures with the same speed never close the distance between each other. This set of rules can make chases more exciting by introducing random elements.

## Beginning a Chase

A chase requires a quarry and at least one pursuer. Any participants not already in initiative order must roll initiative. As in combat, each participant in the chase can take one action and move on its turn. The chase ends when one side drops out or the quarry escapes.
When a chase begins, determine the starting distance between the quarry and the pursuers. Track the distance between them, and designate the pursuer closest to the quarry as the lead. The lead pursuer might change from round to round.

## Running the Chase

Participants in the chase are strongly motivated to use the Dash action every round. Pursuers who stop to cast spells and make attacks run the risk of losing their quarry, and a quarry that does so is likely to be caught.

## DASHING

During the chase, a participant can freely use the Dash action a number of times equal to $3+$ its Constitution modifier. Each additional Dash action it takes during the chase requires the creature to succeed on a DC 10 Constitution check at the end of its turn or gain one level of exhaustion.
A participant drops out of the chase if its exhaustion reaches level 5 , since its speed becomes 0 . A creature can remove the levels of exhaustion it gained during the chase by finishing a short or long rest.

## Spells and Attacks

A chase participant can make attacks and cast spells against other creatures within range. Apply the normal rules for cover, terrain, and so on to the attacks and spells.

Chase participants can't normally make opportunity attacks against each other, since they are all assumed to be moving in the same direction at the same time.

However, participants can still be the targets of opportunity attacks from creatures not participating in the chase. For example, adventurers who chase a thief past a gang of thugs in an alley might provoke opportunity attacks from the thugs.

## Ending a Chase

A chase ends when one side or the other stops, when the quarry escapes, or when the pursuers are close enough to their quarry to catch it.

If neither side gives up the chase, the quarry makes a Dexterity (Stealth) check at the end of each round, after every participant in the chase has taken its turn. The result is compared to the passive Wisdom (Perception) scores of the pursuers. If the quarry consists of multiple creatures, they all make the check.

If the quarry is never out of the lead pursuer's sight, the check fails automatically. Otherwise, if the result of the quarry's check is greater than the highest passive score, that quarry escapes. If not, the chase continues for another round.

The quarry gains advantage or disadvantage on its check based on prevailing circumstances, as shown in the Escape Factors table. If one or more factors give the quarry both advantage and disadvantage on its check, the quarry has neither, as usual.

## Escape Factors

| Factor | Check Has ... |
| :--- | :--- |
| Quarry has many things to hide behind | Advantage |
| Quarry is in a very crowded or noisy area | Advantage |
| Quarry has few things to hide behind | Disadvantage |
| Quarry is in an uncrowded or quiet area | Disadvantage |
| The lead pursuer is a ranger or has | Disadvantage |
| proficiency in Survival |  | proficiency in Survival

Other factors might help or hinder the quarry's ability to escape, at your discretion. For example, a quarry with a faerie fire spell cast on it might have disadvantage on checks made to escape because it's much easier to spot.

Escape doesn't necessarily mean the quarry has outpaced its pursuers. For example, in an urban setting, escape might mean the quarry ducked into a crowd or slipped around a corner, leaving no clue as to where it went.

## Chase Complications

As with any good chase scene, complications can arise to make a chase more pulse-pounding. The Urban Chase Complications table and the Wilderness Chase Complications table provide several examples.

Complications occur randomly. Each participant in the chase rolls a d20 at the end of its turn. Consult the appropriate table to determine whether a complication occurs. If it does, it affects the next chase participant in the initiative order, not the participant who rolled the die. The participant who rolled the die or the participant affected by the complication can spend inspiration to negate the complication.


Characters can create their own complications to shake off pursuers (for example, casting the web spell in a narrow alleyway). Adjudicate these as you see fit.

## Urban Chase Complications

d20 Complication
1 A large obstacle such as a horse or cart blocks your way. Make a DC 15 Dexterity (Acrobatics) check to get past the obstacle. On a failed check, the obstacle counts as 10 feet of difficult terrain.
2 A crowd blocks your way. Make a DC 10 Strength (Athletics) or Dexterity (Acrobatics) check (your choice) to make your way through the crowd unimpeded. On a failed check, the crowd counts as 10 feet of difficult terrain.
3 A large stained-glass window or similar barrier blocks your path. Make a DC 10 Strength saving throw to smash through the barrier and keep going. On a failed save, you bounce off the barrier and fall prone.
4 A maze of barrels, crates, or similar obstacles stands in your way. Make a DC 10 Dexterity (Acrobatics) or Intelligence check (your choice) to navigate the maze. On a failed check, the maze counts as 10 feet of difficult terrain.
5 The ground beneath your feet is slippery with rain, spilled oil, or some other liquid. Make a DC 10 Dexterity saving throw. On a failed save, you fall prone.
6 You come upon a pack of dogs fighting over food. Make a DC 10 Dexterity (Acrobatics) check to get through the pack unimpeded. On a failed check, you are bitten and take 1 d 4 piercing damage, and the dogs count as 5 feet of difficult terrain.
7 You run into a brawl in progress. Make a DC 15 Strength (Athletics), Dexterity (Acrobatics), or Charisma (Intimidation) check (your choice) to get past the brawlers unimpeded. On a failed check, you take 2 d 4 bludgeoning damage, and the brawlers count as 10 feet of difficult terrain.
8 A beggar blocks your way. Make a DC 10 Strength (Athletics), Dexterity (Acrobatics), or Charisma (Intimidation) check (your choice) to slip past the beggar. You succeed automatically if you toss the beggar a coin. On a failed check, the beggar counts as 5 feet of difficult terrain.
9 An overzealous guard (see the Monster Manual for game statistics) mistakes you for someone else. If you move 20 feet or more on your turn, the guard makes an opportunity attack against you with a spear ( +3 to hit; $1 d 6+1$ piercing damage on a hit).
10 You are forced to make a sharp turn to avoid colliding with something impassable. Make a DC 10 Dexterity saving throw to navigate the turn. On a failed save, you collide with something hard and take 1d4 bludgeoning damage.
11-20 No complication.

## Wilderness Chase Complications

## d20 Complication

1 Your path takes you through a rough patch of brush. Make a DC 10 Strength (Athletics) or Dexterity (Acrobatics) check (your choice) to get past the brush. On a failed check, the brush counts as 5 feet of difficult terrain.
2 Uneven ground threatens to slow your progress. Make a DC 10 Dexterity (Acrobatics) check to navigate the area. On a failed check, the ground counts as 10 feet of difficult terrain.
3 You run through a swarm of insects (see the Monster Manual for game statistics, with the DM choosing whichever kind of insects makes the most sense). The swarm makes an opportunity attack against you ( +3 to hit; 4d4 piercing damage on a hit).
4 A stream, ravine, or rock bed blocks your path. Make a DC 10 Strength (Athletics) or Dexterity (Acrobatics) check (your choice) to cross the impediment. On a failed check, the impediment counts as 10 feet of difficult terrain.
5 Make a DC 10 Constitution saving throw. On a failed save, you are blinded by blowing sand, dirt, ash, snow, or pollen until the end of your turn. While blinded in this way, your speed is halved.
6 A sudden drop catches you by surprise. Make a DC 10 Dexterity saving throw to navigate the impediment. On a failed save, you fall $1 \mathrm{~d} 4 \times 5$ feet, taking 1d6 bludgeoning damage per 10 feet fallen as normal, and land prone.
7 You blunder into a hunter's snare. Make a DC 15 Dexterity saving throw to avoid it. On a failed save, you are caught in a net and restrained. See chapter 5 . "Equipment," of the Player's Handbook for rules on escaping a net.
8 You are caught in a stampede of spooked animals. Make a DC 10 Dexterity saving throw. On a failed save, you are knocked about and take 1d4 bludgeoning damage and 1 d 4 piercing damage.
9 Your path takes you near a patch of razorvine. Make a DC 15 Dexterity saving throw or use 10 feet of movement (your choice) to avoid the razorvine. On a failed save, you take 1d10 slashing damage.
10 A creature indigenous to the area chases after you. The DM chooses a creature appropriate for the terrain.
11-20 No complication.

## Designing Your Own Chase Tables

The tables presented here don't work for all possible environments. A chase through the sewers of Baldur's Gate or through the spiderweb-filled alleys of Menzoberranzan might inspire you to create your own table.

## Splitting Up

Creatures being chased can split up into smaller groups This tactic forces pursuers to either divide their forces
or allow some of the quarry to escape. If a pursuit splits into several smaller chases, resolve each chase separately. Run a round of one chase, then a round of the next, and so on, tracking the distances for each separate group.

## Mapping the Chase

If you have the opportunity to plan out a chase, take the time to draw a rough map that shows the route. Insert obstacles at specific points, especially ones that require the characters to make ability checks or saving throws to avoid slowing or stopping, or use a random table of complications similar to the ones in this section. Otherwise, improvise as you play.

Complications can be barriers to progress or opportunities for mayhem. Characters being chased through a forest by bugbears might spot a wasp nest and slow down long enough to attack the nest or throw rocks at it, thus creating an obstacle for their pursuers.

A map of a chase can be linear or have many branches, depending on the nature of the chase. For example, a mine cart chase might have few (if any) branches, while a sewer chase might have several.

## Role Reversal

During a chase, it's possible for the pursuers to become the quarry. For example, characters chasing a thief through a marketplace might draw unwanted attention from other members of the thieves' guild. As they pursue the fleeing thief, they must also evade the thieves pursuing them. Roll initiative for the new arrivals, and run both chases simultaneously. In another scenario, the fleeing thief might run into the waiting arms of his accomplices. The outnumbered characters might decide to flee with the thieves in pursuit.

## Siege EQuipment

Siege weapons are designed to assail castles and other walled fortifications. They see much use in campaigns that feature war. Most siege weapons don't move around a battlefield on their own; they require creatures to move them, as well as to load, aim, and fire them.

## Ballista

Large object

## Armor Class: 15

Hit Points: 50
Damage Immunities: poison, psychic
A ballista is a massive crossbow that fires heavy bolts. Before it can be fired, it must be loaded and aimed. It takes one action to load the weapon, one action to aim it, and one action to fire it.

Bolt. Ranged Weapon Attack: +6 to hit, range 120/480 ft., one target. Hit: 16 (3d10) piercing damage.

## Cannon

Larǵe object
Armor Class: 19
Hit Points: 75
Damage Immunities: poison, psychic

A cannon uses gunpowder to propel heavy balls of cast iron through the air at destructive speeds. In a campaign without gunpowder, a cannon might be an arcane device built by clever gnomes or wizardly engineers.

A cannon is usually supported in a wooden frame with wheels. Before it can be fired, the cannon must be loaded and aimed. It takes one action to load the weapon, one action to aim it, and one action to fire it.

Cannon Ball. Ranged Weapon Attack: +6 to hit, range $600 / 2,400 \mathrm{ft}$., one target. Hit: 44 (8d10) bludgeoning damage.

Cauldron, Suspended
Large object
Armor Class: 19
Hit Points: 20
Damage Immunities: poison, psychic
A cauldron is an iron pot suspended so that it can be tipped easily, spilling its contents. Once emptied, a cauldron must be refilled-and its contents must usually be reheated-before it can be used again. It takes three actions to fill a cauldron and one action to tip it.

Cauldrons can be filled with other liquids, such as acid or green slime, with different effects.

Boiling Oil. The cauldron pours boiling oil onto a 10 -foot-square area directly below it. Any creature in the area must make a DC 15 Dexterity saving throw, taking 10 (3d6) fire damage on a failed save, or half as much damage on a successful one.

## Mangonel

Large object

## Armor Class: 15

Hit Points: 100
Damage Immunities: poison, psychic
A mangonel is a type of catapult that hurls heavy projectiles in a high arc. This payload can hit targets behind cover. Before the mangonel can be fired, it must be loaded and aimed. It takes two actions to load the weapon, two actions to aim it, and one action to fire it.

A mangonel typically hurls a heavy stone, although it can hurl other kinds of projectiles, with different effects.

Mangonel Stone. Ranged Weapon Attack: +5 to hit, range 200/800 ft. (can't hit targets within 60 feet of it), one target. Hit: 27 ( 5 d 10 ) bludgeoning damage.

RAM
Large object
Armor Class: 15
Hit Points: 100
Damage Immunities: poison, psychic
A ram consists of a movable gallery equipped with a heavy log suspended from two roof beams by chains. The log is shod in iron and used to batter through doors and barricades.

It takes a minimum of four Medium creatures to operate a ram. Because of the gallery roof, these operators have total cover against attacks from above.
Ram. Melee Weapon Attack: +8 to hit, reach 5 ft ., one object. Hit: 16 (3d10) bludgeoning damage.

