

Knots

from the *Scout Handbook*, for your reference

The Language of Knots

Knots have a language all their own. Here are some important terms you should know.

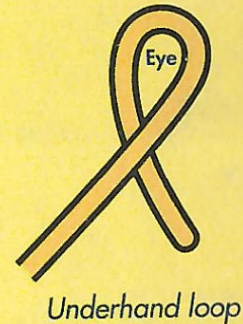
Running End. The end of the rope that is used to tie a knot. This end is also called the *working end*.

Standing Part. All of a rope that is not the running end.

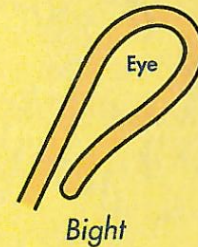
Overhand Loop. A loop in which the running end of the rope is on top of the standing part.



Underhand Loop. A loop in which the running end of the rope is placed under the standing part.

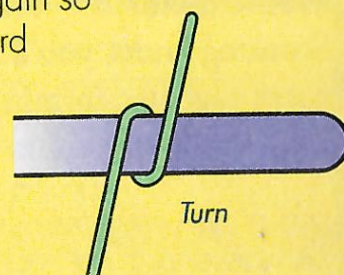


Bight. A U-shaped formation created by doubling back a length of the rope alongside itself. The running end of the rope does not cross the standing part. (If that happens, the shape it forms is a loop, not a bight.)

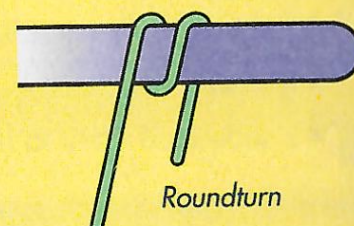


Eye. The space enclosed by a loop or bight.

Turn. To take a turn, wrap the rope once around a pole or a stake. The friction created by the turn can help you control a line that has tension on it, especially if you are letting line out or taking it in.



Roundturn. Make a roundturn by wrapping the rope once around a spar or stake and then halfway around again so that the running end of the rope is going back toward the standing part. A roundturn creates additional friction for controlling a line under strain.



Hitch. A knot that secures a rope to a pole or other stationary object.

Bend. A knot used to join two ropes.

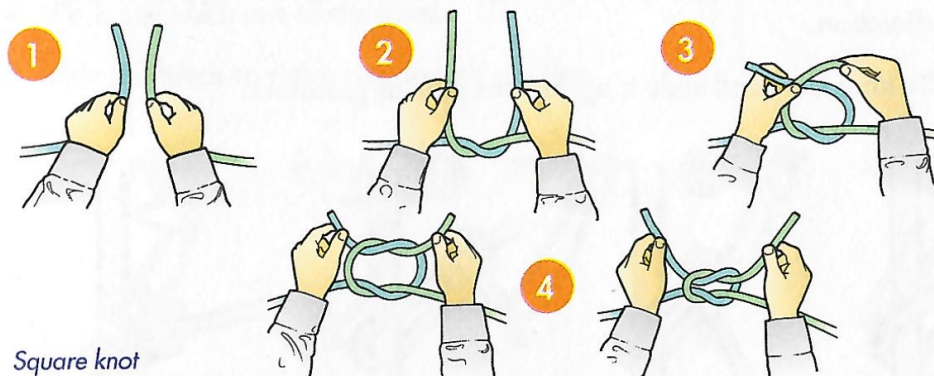
Dress a Knot. To adjust a new knot so that everything is in its place. This usually means pulling on all the strands evenly. Dressing a knot ensures that the knot will perform as expected.

SQUARE KNOT

The square knot has many uses, from securing bandages and packages to joining two ropes together. A square knot works best when pressed against something else and the ropes are of the same diameter. It should not be used to hold a heavy load.

Tying a square knot is as easy as right over left, left over right. Here's how:

1. Hold a rope end in each hand.
2. Pass the right end over and under the rope in your left hand.
3. Pass the rope end now in your left hand over and under the one now in your right.
4. Tighten the knot by pulling both running ends at the same time.



Square knot

Square Knot (Almost) Lookalikes

If you follow the square knot instructions but go right over left and then right over left again (instead of left over right), you'll end up with a granny knot. Although it looks very similar to the square knot, the granny knot is dangerous because it pulls apart easily when the rope is holding a load.

The thief knot also looks a lot like the square knot but is less secure and is dangerous if used to hold a load. It's tied by weaving the running end of one rope through a bight made in the other rope. Legend has it that sailors used to tie their sea bags with this knot and tuck the ends inside. Someone going through a bag would probably retie it with a regular square knot, thus revealing that the bag had been searched.

On the other hand, the surgeon's knot is an improvement on the square knot. To tie it, simply modify Step 2 of tying the square knot by passing the right end over and under the rope in your left hand twice.



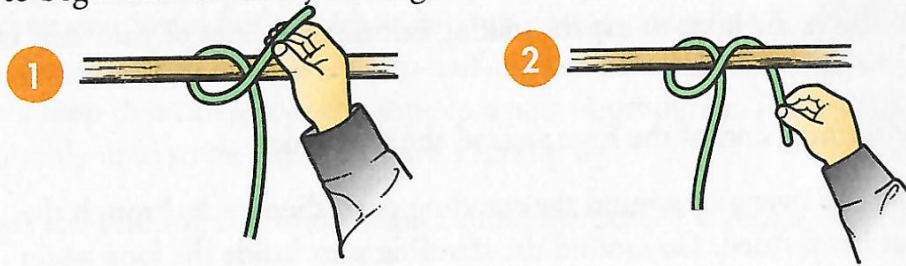
Granny knot

Thief knot

Surgeon's knot

CLOVE HITCH

Clove comes from the word cleave, meaning “to hold fast.” The clove hitch is used to begin and end many lashings. Here’s how to tie it:



1. Bring the running end of the rope over and under a pole.
2. Take the end around a second time, crossing over the first wrap to form the shape of an X.



3. Bring the rope end around a third time and tuck it under the X. The ends of the rope should come out between the legs of the X. If they come out to either side of the X, you don’t have a clove hitch.
4. Pull the ends of the rope to tighten the hitch.

Alternate Clove Hitch

Another way of tying a clove hitch makes it easy to lay the knot over the end of a pole. This method is especially useful for tying a clove hitch along the middle of a line.

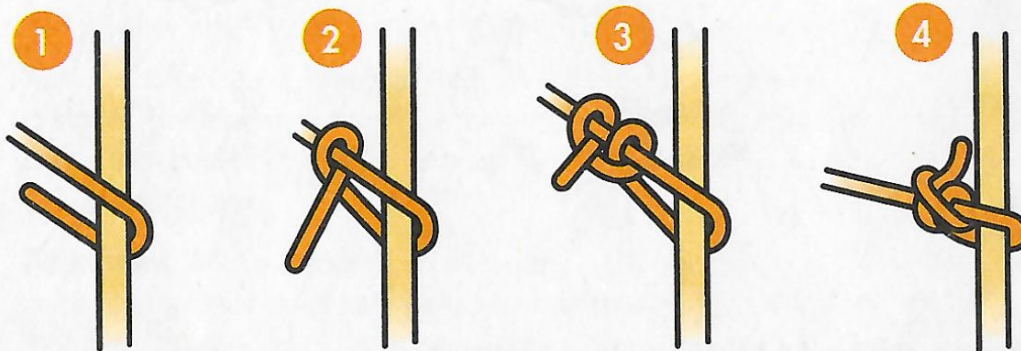
1. Make an underhand loop near where you want the clove hitch to be.
2. Form another underhand loop next to the first loop a little farther away from the rope end.
3. Lay the second loop on top of the first.
4. Place the pair of loops over the end of a pole. Tighten the knot.



TWO HALF-HITCHES

Two half-hitches can be described as a clove hitch tied around its own standing part instead of a pole, or another way as a taut-line hitch with an extra loop. However you describe it, two half-hitches (also called a double half-hitch) form a loop that can secure the rope to a post or grommet. Two half-hitches are commonly used to tie guy lines onto a dining fly.

1. Pass the running end of the rope around the post or through the grommet.
2. Bring the end over and around the standing part of the rope, then back through the loop that has formed. This makes a half-hitch.
3. Continue taking the end around the standing part to tie another half-hitch (this time outside the loop). Be sure to go around the standing part in the same direction.
4. Pull the knot snug and slide it against the pole or grommet.

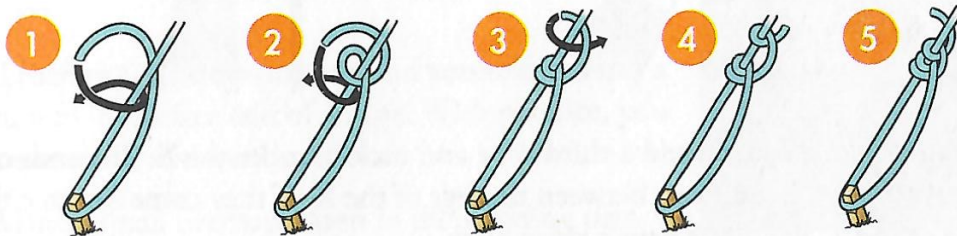


Two half-hitches

TAUT-LINE HITCH

Two half-hitches will tend to slide until the knot is cinched close to the post or grommet. To create an adjustable loop that stays in place, use the taut-line hitch. This is the knot to use for staking out the guy lines of your tent or dining fly.

1. Pass the running end of the rope around the tent stake.
2. Bring the end over and around the standing part, then back through the loop that has formed. Go around the standing part inside the loop again (this time closer to the tent stake).
3. Going in the same direction, take the end around the standing part outside the loop to tie another half-hitch.
4. Work any slack out of the knot.
5. Slide the hitch to tighten or loosen the line.



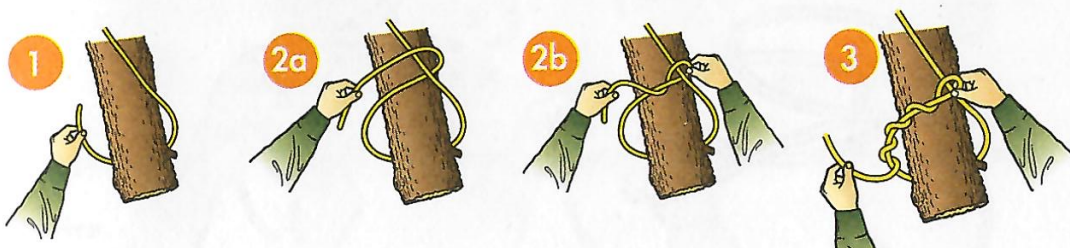
Taut-line hitch

TIMBER HITCH

The timber hitch is the perfect knot to use for dragging a log across the ground. It is also the knot that starts a diagonal lashing. Here's how to tie a timber hitch:

1. Pass the running end of the rope around a log.
2. Loop the end around the standing part of the rope, then twist the end around itself three or more times.
3. Pull slack out of the rope to tighten the timber hitch against the log.

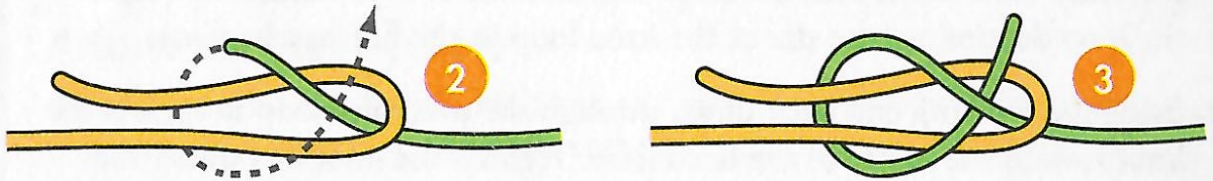
The hitch will stay secure as long as you are pulling on the rope. When you are done using the rope, the timber hitch is easy to loosen and remove from the log.



Timber hitch

SHEET BEND

The sheet bend is the preferred knot for tying together two ropes of the same or different diameters. It is a close relative of the bowline and can be untied in the same way.



1. Make a bight in the end of the thicker rope and hold it with one hand.
2. Pass the running end of the other rope through the bight. Then take that end around and behind the bight.
3. Bring the end across the front of the bight and tuck it under its own standing part so that both rope ends emerge on the same side of the knot.
4. Tighten the knot by holding the bight and pulling the standing part of the smaller line.

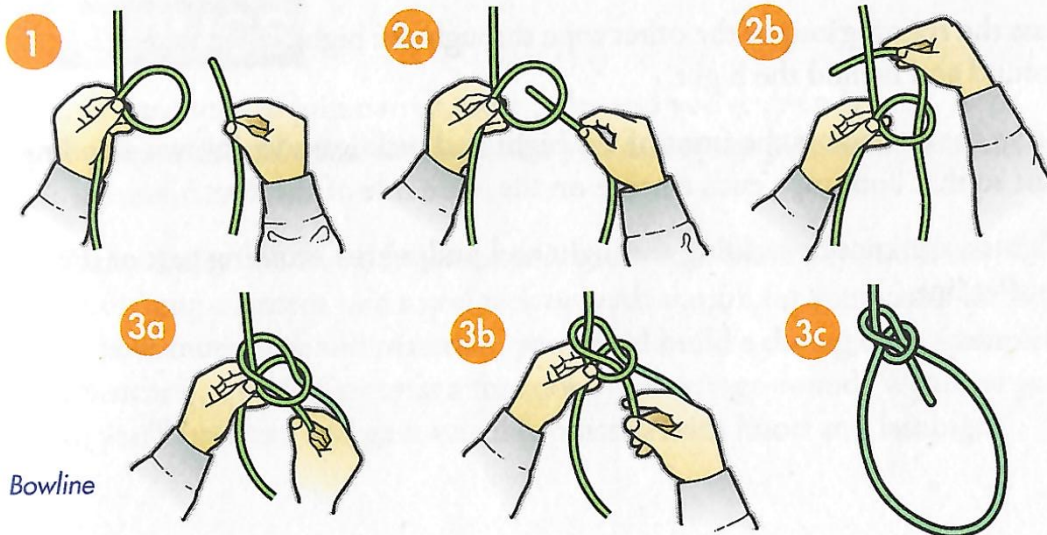
BOWLINE

The bowline forms a loop that will not slip. That's just what you want for tying a rope around your waist or around someone requiring rescue. A bowline also works well for securing guy lines through the grommets on a tent or dining fly. It is also easy to untie.

Learn to tie the bowline around yourself, around a post, and in the free end of a rope. With practice, you can even tie it with one hand.



1. Make a small overhand loop in the standing part of a rope.
2. Bring the rope end up through the loop, around and behind the standing part, and back down into the loop. The amount of rope remaining below the loop determines the size of the fixed loop in the finished bowline.
3. Bring the working end back down through the overhand loop so it exits the knot toward the inside of the fixed loop. Tighten the knot by pulling the standing part of the rope away from the loop while holding the bight.



Bowline

Alternate Bowline

Here's another way to tie the bowline. Try both methods and see which is easier for you.

1. Form two bights in the rope and hold one in each hand.
2. Pass the bight in your right hand over the bight in your left hand.
3. Pass the running end in your right hand under the standing end and then up through the loop in your left hand. Tighten the knot.

To untie the bowline, turn the knot over. Notice the collar-shaped bight of rope in the bowline. To untie the knot, push the collar away from the loop as if you were opening the top on a soda can. That will break the knot so that you can loosen it.