KNOTS EVERY HOUSEHOLD SHOULD KNOW

Seven knots cover most household jobs: a square knot or sheet bend to join two ropes, a bowline for a loop that will not slip, a clove hitch or round turn and two half hitches to tie onto a post or tree, a figure-eight to stop a rope end, and a slip-knot tightener to pull a line taut. The steps below follow the US Army's survival and mountaineering manuals.

Reviewed October 30, 2026

A few knots let you rig a tarp, tie down a load, hang a clothesline, or lash gear together when the power is out or you have left home. The Army's survival manual, ATP 3-50.21, Appendix A, says a basic knowledge of ropes and knots is needed to build shelters and make tools. Practice each knot with a real rope before you need it.

Three words used in the steps (ATP 3-50.21, paragraph A-1):

- **Running end:** the free end of the rope, the one you tie with.
- **Standing part:** the rest of the rope.
- **Bight:** a U-shaped bend in the rope.

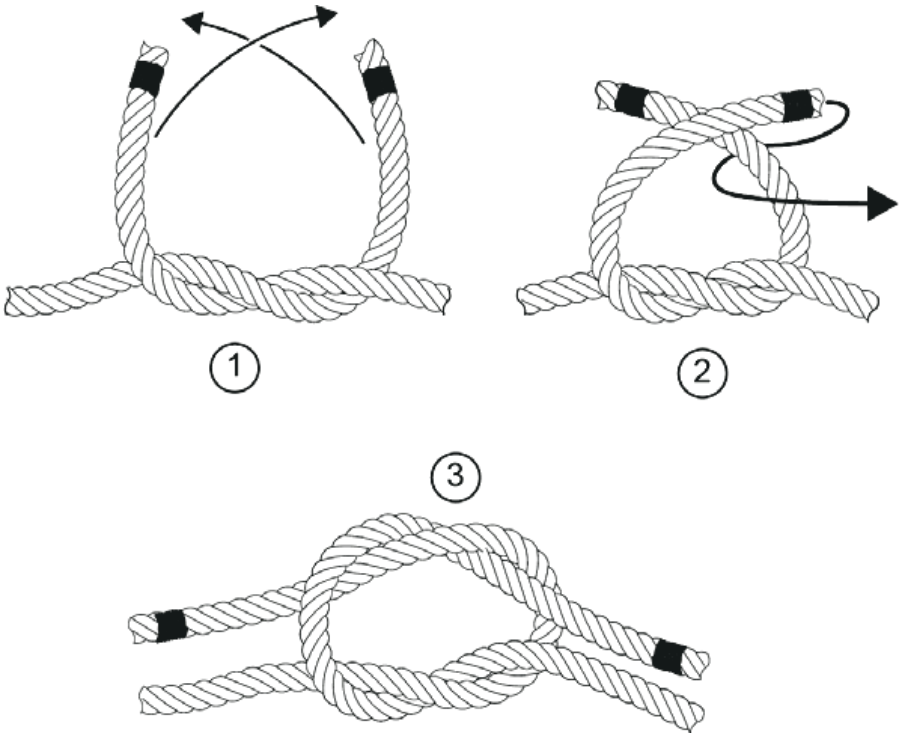
Dress every knot. Dressing means lining up and straightening all the parts of the knot, then pulling each part snug. ATP 3-50.21 (A-2) says neglecting this can cut knot strength by 50 percent, and a loosely tied knot can deform under strain, turn into a slipknot, or come untied.

WARNING

This page covers household jobs: tarps, loads, clotheslines, bundles. Climbing, rappelling, and any rope that holds a person need hands-on training. The Army's manual for that work is TC 3-97.61 Military Mountaineering. Every knot weakens a rope: TC 3-97.61 (paragraph 8-38) says a knot reduces rope strength by a quarter to almost half.

SQUARE KNOT

Use it to join the two ends of the same rope around a bundle, or two ropes of equal thickness.



Square knot. US Army ATP 3-50.21, Survival, figure A-5.

1. Hold one rope end in each hand.
2. Lay the right-hand end over the left-hand end.
3. Wrap it under and back up over the top of the left-hand rope.
4. Now lay the end that is in your left hand over the end in your right hand.
5. Wrap it under and back up over the top, the same way as in step 3.
6. Pull both standing parts to tighten, then dress the knot.
7. If the knot will be under strain, tie an overhand knot in each tail, against the square knot.

Steps 1 to 7 follow TC 3-97.61, paragraph 8-76.

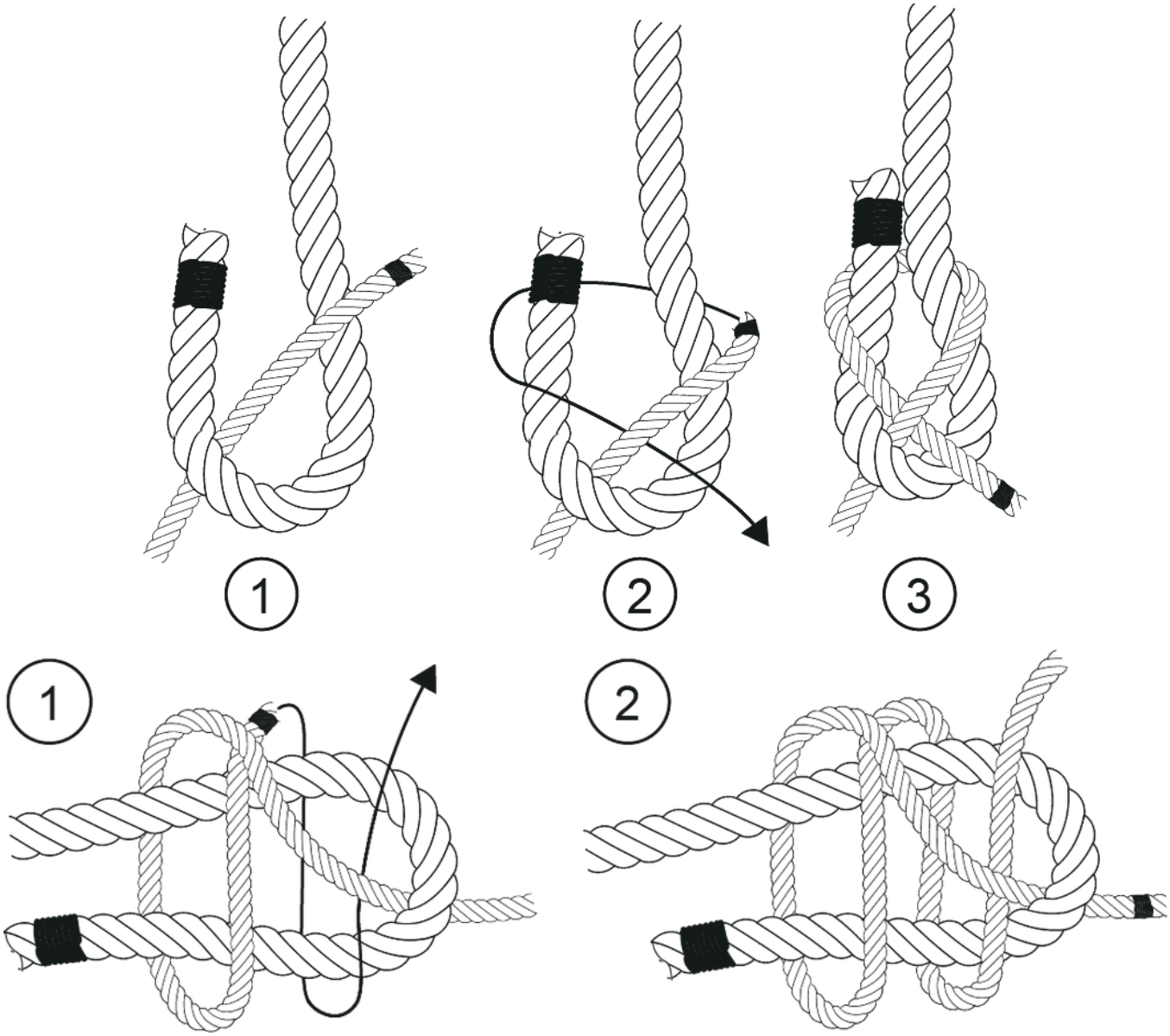
Check it: you should see two bights locked into each other, and each running end should lie alongside its own standing part, on the same side (TC 3-97.61, 8-77). If the ends do not lie parallel to their own standing parts, you have tied a “granny knot.” ATP 3-50.21 (A-8) says a granny knot slips under strain and should not be used. To untie a square knot, grab the two bends of the bights and push them apart (A-9).

Caution: TC 3-97.61 (8-75) says to use the square knot as a joining knot only when you cannot tie a more secure one. It is fine for a bundle; do not trust it with a heavy load.

See figure A-5 in ATP 3-50.21 and figure 8-18 in TC 3-97.61.

SHEET BEND

Use it to join two ropes of different thickness, such as a thin cord to a heavier rope.



Single sheet bend (top) and double sheet bend (bottom). US Army ATP 3-50.21, Survival, figures A-6 and A-7.

1. In the end of the thicker rope, make a bight (a U shape) and hold it.
2. Pass the running end of the thinner rope up through the bight.
3. Take the thin end around behind both legs of the bight.
4. Tuck the thin end back under itself, where it entered the bight.
5. Pull the thin rope's standing part and the bight apart to tighten.
6. For wet rope, or for more security, make a double sheet bend: before tightening at step 5, take one more turn around both legs of the bight and tuck under again, then tighten.

Steps follow ATP 3-50.21, paragraphs A-10 and A-11.

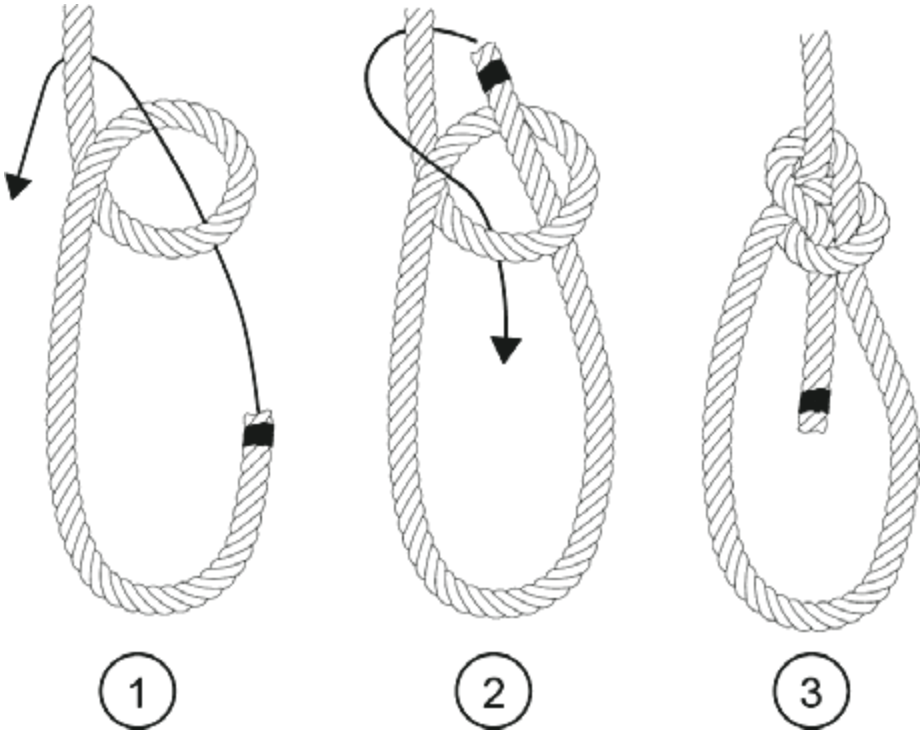
Check it: the thin rope should wrap once around the whole bight and pinch under itself, with both short ends on the same side of the knot.

Caution: ATP 3-50.21 (A-10) limits the single sheet bend to dry ropes of unequal size and says it may loosen or slip when the tension comes off. It says the double sheet bend (A-11) works better for ropes of equal or unequal size, for wet ropes, and for tying a rope to an eye, and will not slip or draw tight under heavy loads.

See figures A-6 and A-7 in ATP 3-50.21.

BOWLINE

Use it when you need a loop in the end of a rope that holds its size, such as a loop around a post or a loop to throw over a hook.



Bowline. US Army ATP 3-50.21, Survival, figure A-8.

1. If tying around an object, pass the running end around or through it first.
2. In the standing part, make a small loop with the standing part underneath. Leave enough rope in the running end to form the big loop you want.
3. Pass the running end up through the small loop from underneath.

4. Take the running end around behind the standing part.
5. Bring it back down through the small loop, so it lies beside the rope that came up through.
6. Hold the running end against the side of the big loop and pull the standing part to tighten. Dress the knot.
7. Tie an overhand knot with the tail as a backup, leaving about a 4-inch tail.

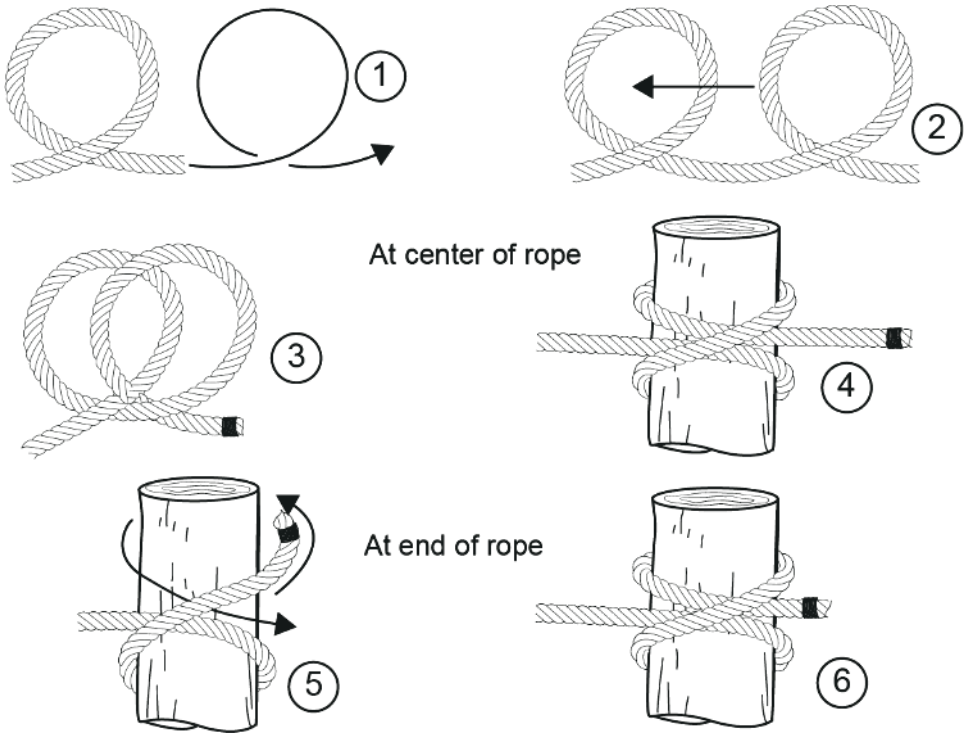
Steps 1 to 6 follow ATP 3-50.21, paragraph A-13. The overhand backup and 4-inch tail in step 7 come from TC 3-97.61, paragraphs 8-79 and 8-80.

Check it: a bight of the rope should be locked in place by the small loop, and the short tail should sit on the inside of the big loop (TC 3-97.61, 8-80). ATP 3-50.21 (A-13) notes the bowline is easy to untie.

See figure A-8 in ATP 3-50.21 and figure 8-19 in TC 3-97.61.

CLOVE HITCH

Use it to fasten a rope to a pole, pipe, rail, or post. It can be tied at the end of a rope or anywhere along it. ATP 3-50.21 (A-1) says lashings, used to tie poles together, start and end with clove hitches.



Clove hitch, at the center and at the end of the rope. US Army ATP 3-50.21, Survival, figure A-15.

At the end of a rope (ATP 3-50.21, A-24):

1. Wrap the running end once around the pole.
2. Cross it over the standing part.
3. Wrap it around the pole a second time, beside the first turn.
4. Tuck the running end up under itself, under that second turn.
5. Pull both ends to tighten.

In the middle of a rope, to drop over a post (TC 3-97.61, 8-106):

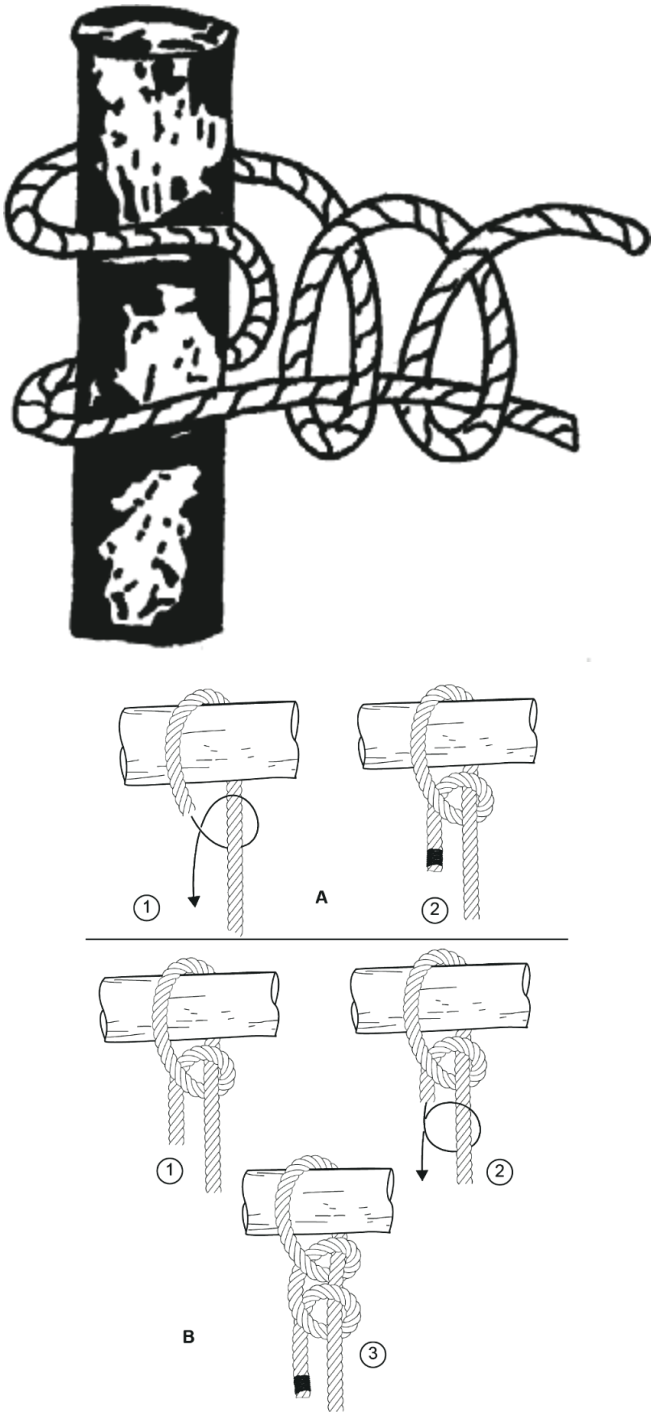
1. Hold the rope in both hands, palms down, hands together.
2. Slide your left hand about 10 inches to the left and form a loop.
3. Slide your right hand about 10 inches to the right and form a second loop the same way.
4. Lay the left loop on top of the right loop. They should sit back to back.
5. Drop both loops over the post and pull the two ends in opposite directions.

Check it: you should see two turns side by side around the pole, with the two ends coming out in opposite directions. TC 3-97.61 (8-104) says the hitch is easy to adjust after it is tied.

See figure A-15 in ATP 3-50.21 and figures 8-28 and 8-29 in TC 3-97.61.

ROUND TURN AND TWO HALF HITCHES

Use it to anchor a rope to a tree or pole when the line will be loaded hard, such as the ends of a tarp ridgeline. ATP 3-50.21 (A-5) calls it the main anchor knot when high loads would make other knots jam and be hard to untie, and says it is most used to anchor rope to a pole or tree.



Round turn and two half hitches (top), and half hitches step by step (bottom). US Army ATP 3-50.21, Survival, figures A-3 and A-12.

1. Wrap the running end around the tree or pole one and a half times, so the running end comes back out alongside the standing part. That is the round turn (TC 3-97.61, 8-25).
2. Take the running end around the standing part and tuck it back under itself. That is one half hitch.
3. Take the running end around the standing part again, the same direction, and tuck it under itself again. That is the second half hitch.

4. Slide the two half hitches up snug against the round turn.

Steps 2 and 3 follow ATP 3-50.21, paragraph A-21.

Check it: you should see one and a half wraps around the anchor, then two half hitches snug against them on the standing part, each tucked under itself in the same direction.

Caution: a half hitch alone is not secure. ATP 3-50.21 (A-20) says it tends to undo itself without a load, and the Army replaced it with the overhand knot as a finishing knot.

See figure A-3 and figure A-12 in ATP 3-50.21.

FIGURE-EIGHT STOPPER KNOT

Use it in the end of a rope to stop the end from pulling through a grommet, a pulley, or another knot. ATP 3-50.21 (A-6) says it forms a larger knot than an overhand knot.

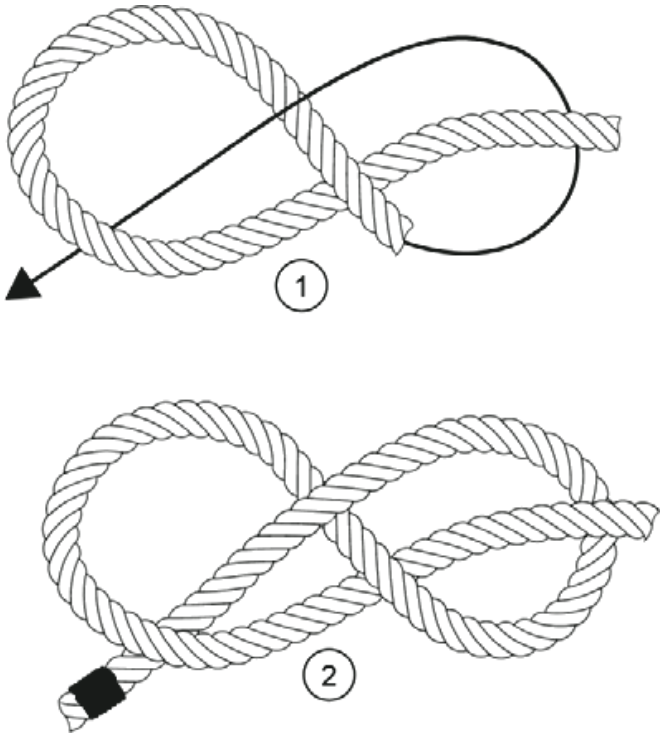


Figure-eight knot. US Army ATP 3-50.21, Survival, figure A-4.

1. Near the end of the rope, make a loop in the standing part.
2. Pass the running end around behind the standing part.
3. Bring it back over the near side of the loop.
4. Pass it down through the loop.

5. Pull the running end and the standing part to tighten.

Steps follow ATP 3-50.21, paragraph A-6.

Check it: the knot should look like the number 8 before you pull it tight. If it looks like a simple twist, you have tied an overhand knot; untie and repeat step 2.

See figure A-4 in ATP 3-50.21 and figure 8-7 in TC 3-97.61.

TIGHTENING A LINE

Use it to pull a clothesline or tarp ridgeline tight between two trees or posts. This is a household version of the "transport tightening system" in TC 3-97.61, chapter 16, which uses a figure-eight slip knot as a pulley point. The manual uses a locking carabiner in the loop.

Figure-eight slip knot. US Army TC 3-97.61, Military Mountaineering, figure 8-8.

1. Tie one end of the rope to the first anchor with a bowline or a round turn and two half hitches.
2. Walk the rope toward the second anchor. Stop about 1 to 2 meters (3 to 6 feet) short of it (TC 3-97.61, 16-7).
3. There, make a 12-inch bight in the rope (TC 3-97.61, 8-46).
4. Hold the center of the bight in your right hand and the two parallel ropes in your left hand, about 12 inches up.
5. With your right hand, twist the bight two full turns clockwise.
6. Reach through the bight, grab the rope on the second-anchor side, and pull a new bight of it back through the original bight. This new bight is your adjustable loop.
7. Pull down on the standing end and dress the knot. Secure the adjustable loop with a half hitch so it cannot slide (8-46, step 6).
8. Clip a carabiner into the loop.
9. Run the rest of the rope around the second anchor and clip it into the carabiner.
10. Pull the free end to take the slack out of the line.
11. Tie it off with a round turn and two half hitches, one of the tie-off methods TC 3-97.61 lists (16-5).

Check it: the slip knot should be in the shape of a figure eight, with both ropes of the bight passing through the same loop of the eight (TC 3-97.61, 8-47). The line should stay tight after you let go of the free end.

See figures 8-8 and 16-1 in TC 3-97.61.

For using these knots on a tarp, see improvised shelter.

PRACTICE LIST

KNOTS

- [ ] Square knot, with overhand backups
- [ ] Single and double sheet bend
- [ ] Bowline, with an overhand backup
- [ ] Clove hitch, at the end and in the middle of a rope
- [ ] Round turn and two half hitches around a tree or pole
- [ ] Figure-eight stopper knot
- [ ] Tightening a line between two anchors

TRACK	Survival skills
SHEET	1 of 13
REVIEWED	October 30, 2026

COMPILED FROM THESE SOURCES

1. US Army, ATP 3-50.21 Survival (2018), Appendix A, Survival Knots and Rope
2. US Army, TC 3-97.61 Military Mountaineering (2025), Chapter 8, Knot Tying and Rope Management, and Chapter 16, Rope Bridges

Every safety claim on this sheet links to its primary source.