



JROTC Virtual Learning

**LET 3 & 4/ One Rope Bridge Knots
and Swiss Seat**

April 28, 2020



Lesson: April 28, 2020

Objective/Learning Target:

Students will learn how to tie the knots used in a one rope bridge including the Square Knot, Bowline, Wireman's Knot and a Swiss Seat.

Let's Get Started:

Watch Video: [Optional Knot](https://www.youtube.com/watch?v=TUHgGK-tlmY&feature=youtu.be) (3:27 Min)

<https://www.youtube.com/watch?v=TUHgGK-tlmY&feature=youtu.be>

Knots to be Learned



Bowline



Square Knot

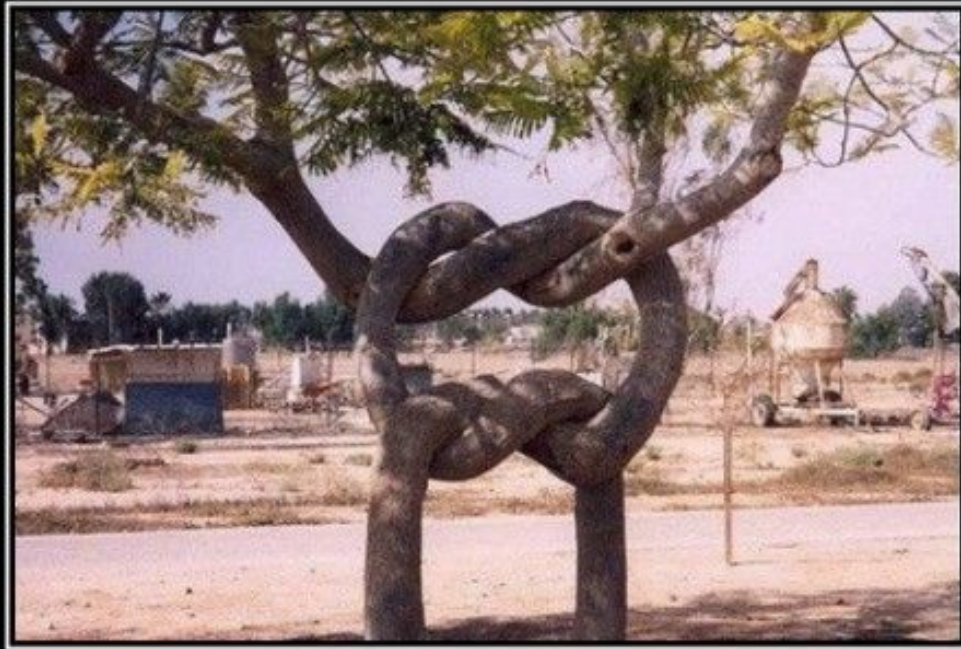


Swiss Seat



**Wireman's
Knot**

Learning Knot Tying is Muscle Memory



CHUCK NORRIS

Taught some boy scouts how to tie a knot!

Learning to Tie Knots

- Learning to tie knots is a muscle memory skill. Other muscle memory skills include riding a bike, shooting a basketball, throwing a ball, and playing a musical instrument.
- Muscle memory skills are difficult to learn at first and only get better with practice.
- The good news is once you master a muscle memory skill you remember it for a very long time.
- In order to get the most out of this lesson you must get a rope and practice the knots many times over days or weeks.
- Knowing how to tie some of these knots could save your life someday. The knots that I learned as a boy I have used my whole life. Many times I have trusted my life in my ability to properly tie knots.

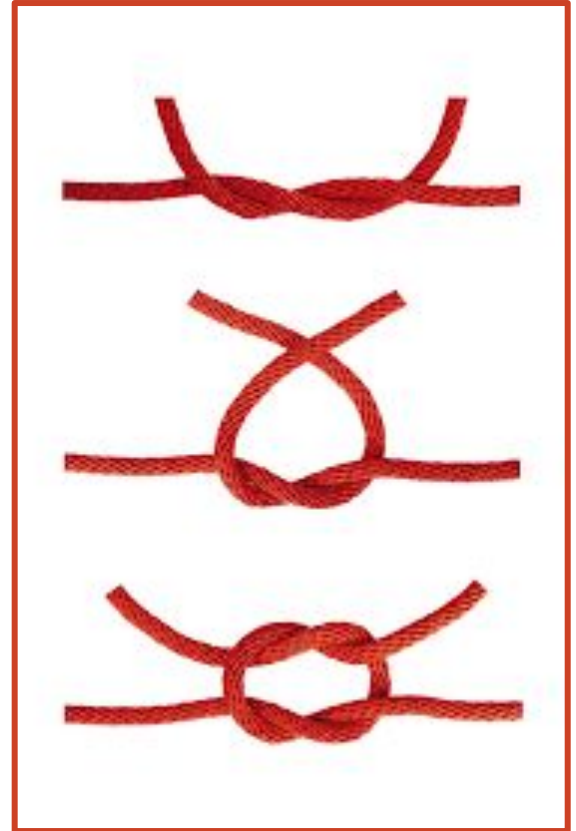
Square Knot

Right over Left; Left over Right

- The Square Knot is used to tie two same sized ropes together
- It is the primary knot in the Swiss seat.
- It is one of the most useful knots most people know
- Watch video and practice tying with your own rope

[How to Tie a Square Knot](https://www.youtube.com/watch?v=LOAxiQk8wj8)

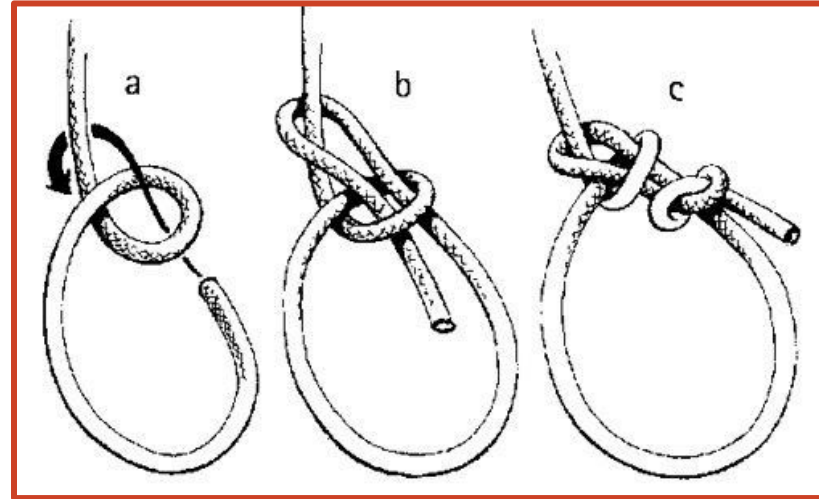
<https://www.youtube.com/watch?v=LOAxiQk8wj8>



Bowline

The rabbit comes out of the hole goes around the tree and back in the hole.

- The Bowline is used to tie a loop that won't constrict at the end of a rope
- It is a rescue knot used to secure people to the end of a rope
- It is one of the most important knots to know because it can save lives
- Watch video and practice tying with your own rope



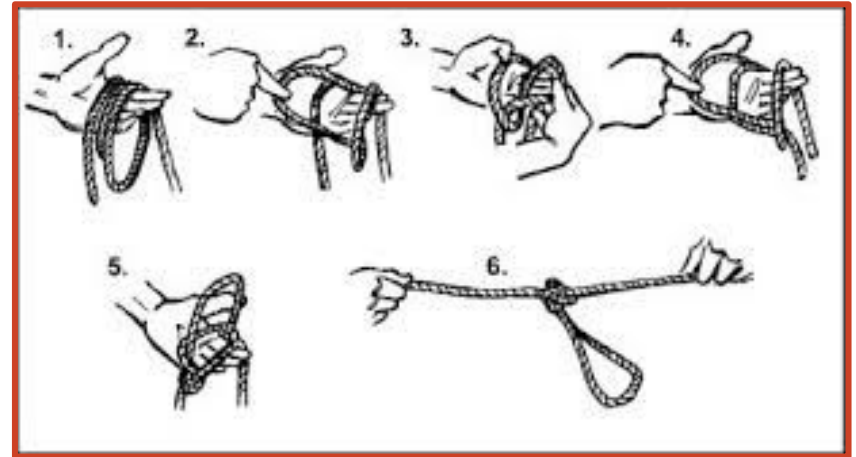
[How to tie a Bowline](https://www.youtube.com/watch?v=x9G2N3y_ztY)

https://www.youtube.com/watch?v=x9G2N3y_ztY

Wireman's Knot

Center over Left, Center over Right, Center over Left, Pull up Center

- The Wireman's Knot is used to tie a loop in the middle of a rope
- It is used to make the tightening mechanism in the one rope bridge
- It is easy to untie because it has a quick release
- Watch video and practice tying with your own rope



[How to Tie a Wireman's Knot](https://www.youtube.com/watch?v=m_-T06lVE8E)

https://www.youtube.com/watch?v=m_-T06lVE8E

[Another Good Wireman't Knot Video](https://www.youtube.com/watch?v=lpGW6hQlvPo)

<https://www.youtube.com/watch?v=lpGW6hQlvPo>

Swiss Seat

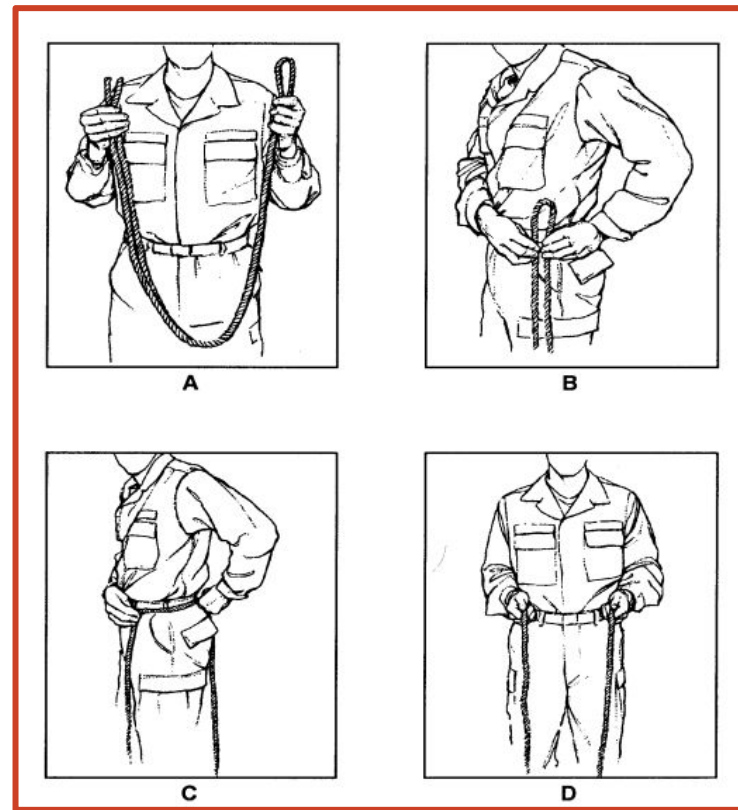
- The Swiss Seat is used to secure a person to another rope with a carabiner (snaplink)
- The US Army uses the Swiss Seat to rappel and cross one rope bridges
- It is a very safe security harness that requires minimal equipment
- Watch videos and practice constructing a Swiss Seat with your own rope

[How to Tie a Swiss Seat](https://www.youtube.com/watch?v=ssmYruwGTzM)

<https://www.youtube.com/watch?v=ssmYruwGTzM>

[How to Tie a Swiss Seat 2](https://www.youtube.com/watch?v=zH9F09Dr3IU)

<https://www.youtube.com/watch?v=zH9F09Dr3IU>



Instructional Diagrams continue on next slides

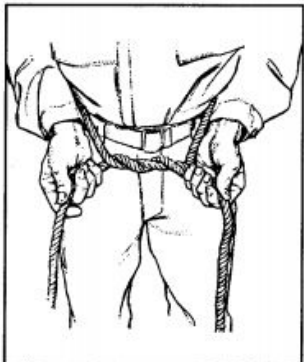
Swiss Seat Diagram (Continued)



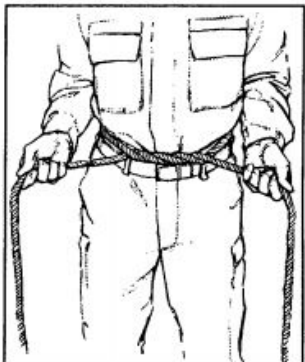
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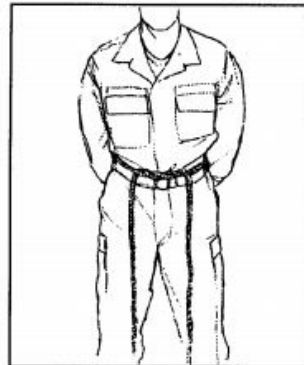
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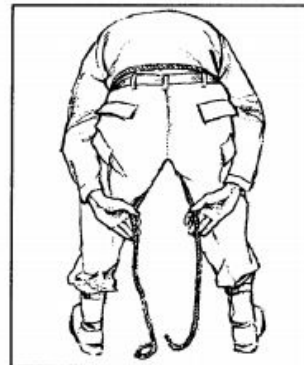
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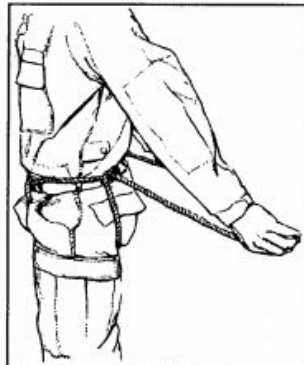
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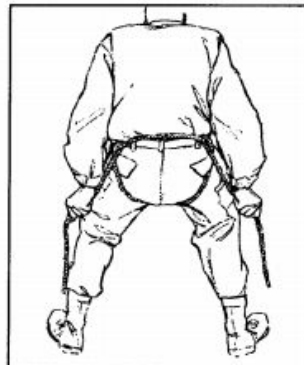
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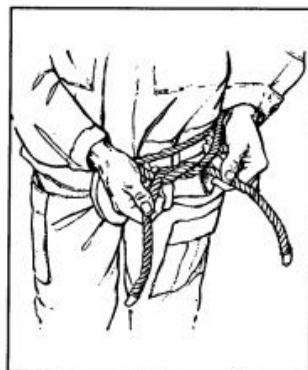


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Swiss Seat Diagram (Continued)



M



N



Q



R



O



P



S



T

Swiss Seat Diagram Explained

The diagrams and this description is from the US Army Training Circular TC 21-24 Rappelling. Using this and the videos should help you learn how to construct a Swiss Seat

SEAT-HIP RAPPEL a. The rappel seat is constructed as follows (Figure 1-3A through 1-3T):

- (1) Place the midpoint (center) of the length of the sling rope on the hip opposite the brake hand (the brake hand is the strong hand) (Figure 1-3A, B, C).
- (2) Bring the sling rope around the waist above the hip bone. Tie a double overhand knot over the navel (Figure 1-3D, E, F, G, H).
- (3) Let the two free ends of the sling rope fall to the ground in front (Figure 1-3I).
- (4) Bring the two free ends of the sling rope down between the legs and up over the buttocks. Ensure that the two free ends do not cross (Figure 1-3J).
- (5) Pass the ends of the ropes over the rope that is tied around the waist at the two points above the center of the two rear seat pockets (Figure 1-3K).
- (6) Grab the free end of the rope that is on the left side of the body with the left hand, and the free end of the rope that is on the right side of the body with the right hand.
- (7) Squat down and simultaneously pull on both running ends of the ropes and stand up. This will tighten the seat.
- (8) Take the two running ends of the rope down and back over the waist rope from the inside. Bring the running ends back under the ropes that are going across the buttocks (Figure 1-3L).

Swiss Seat Diagram Explained (Continued)

SEAT-HIP RAPPEL (Continued) (9) Tie the two running ends with a square knot and two overhand knots on the hip opposite the brake hand (Figure 1-3M, N). (10) Place any excess rope in the trouser pocket near the square knot (Figure 1-3O, P). (11) With the gate down and the hooked end of the snaplink against the navel, place the end of the snaplink through the single rope that is around the waist and the two ropes forming the double-hand knot (Figure 1-3Q). (12) Rotate the snaplink a half turn so that the gate is facing up and will open away from the body (Figure 1-3R, S, T).

Knot Tying Conclusion

- This lesson has presented the knots needed to construct a one rope bridge.
- These knots are useful for many purposes but in order to use them in the future you must practice them. Once you use the diagrams and the videos to figure out how to tie each knot you must practice.
- I recommend starting with one knot and learning it well. and Master that one knot it before starting the next knot. Learn the Swiss Seat last.