

Name _____

Lab # 3 -- Ropework

Description:

In this exercise the student will learn to work with rope by making a rope halter, splicing the rope, and tying common knots.

Materials:

15' -- 1/2 polypropylene rope
2 -- hog rings
Masking or Electrical tape (to prevent fraying)

Tools:

Sharp utility knife
Propane torch (to melt ends)
Hog ring pliers

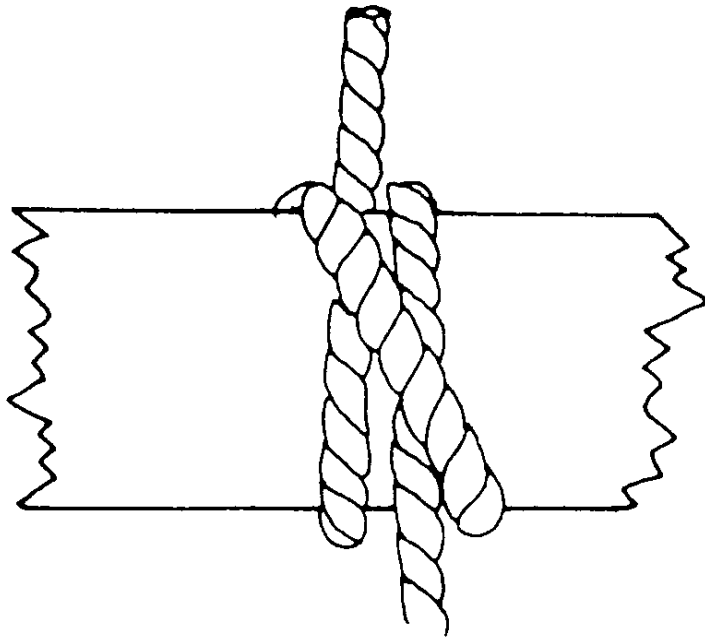
Directions:

1. Cut rope to length. Wrap the area to be cut with tape before cutting. This will prevent the ends from fraying. Use a propane torch to lightly melt the ends.
Caution: Hot molten plastic will burn.
2. Use hog rings to prevent the halter end from fraying.
3. Tie a halter as described in the attached directions.
4. Crown splice one end of the rope (see attached diagram).
5. Tie a bowline in the end of the rope with the crown splice.
6. Tie a clove hitch (see diagram) in the middle of the rope around the provided stick.
7. Label the project with tape and a marking pen.
8. Tie a trucker's hitch on the rack in the shop and have the instructor sign your grade sheet.
9. Turn in the grade sheet and the project.

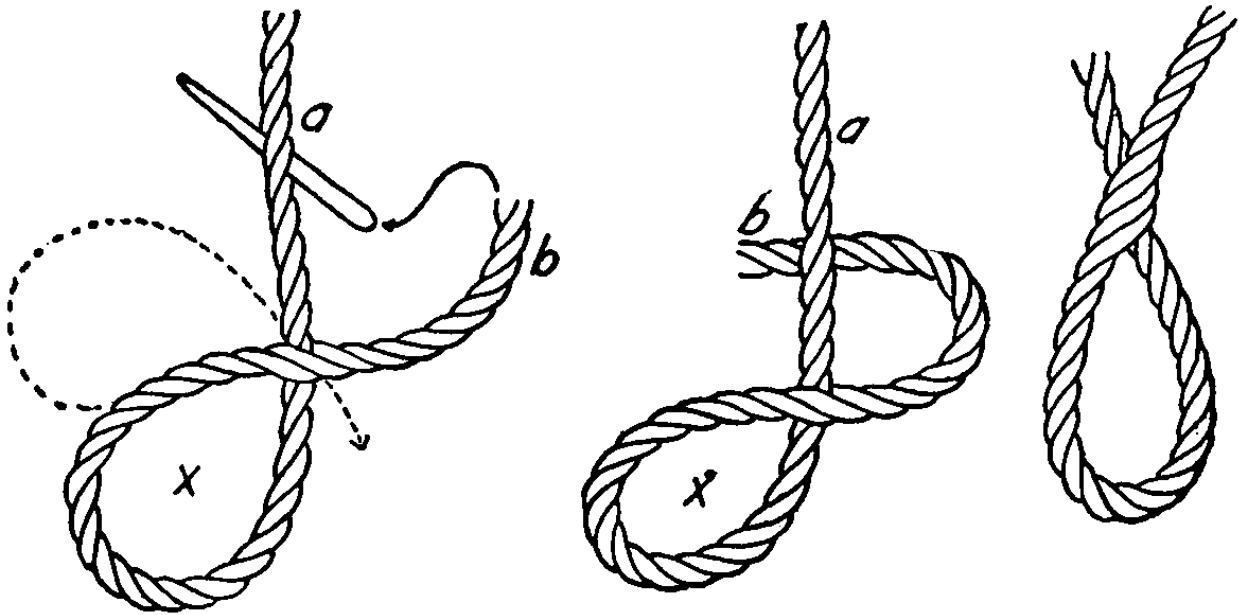
Name: _____

Grading:

Criteria	Possible	Score
Truckers Hitch Checked by _____	4	
Clove hitch	4	
Bowline	4	
Halter:		
Knots	6	
Crown Splice	4	
Size (spacing between knots)	4	
Workmanship	4	
Total	30	



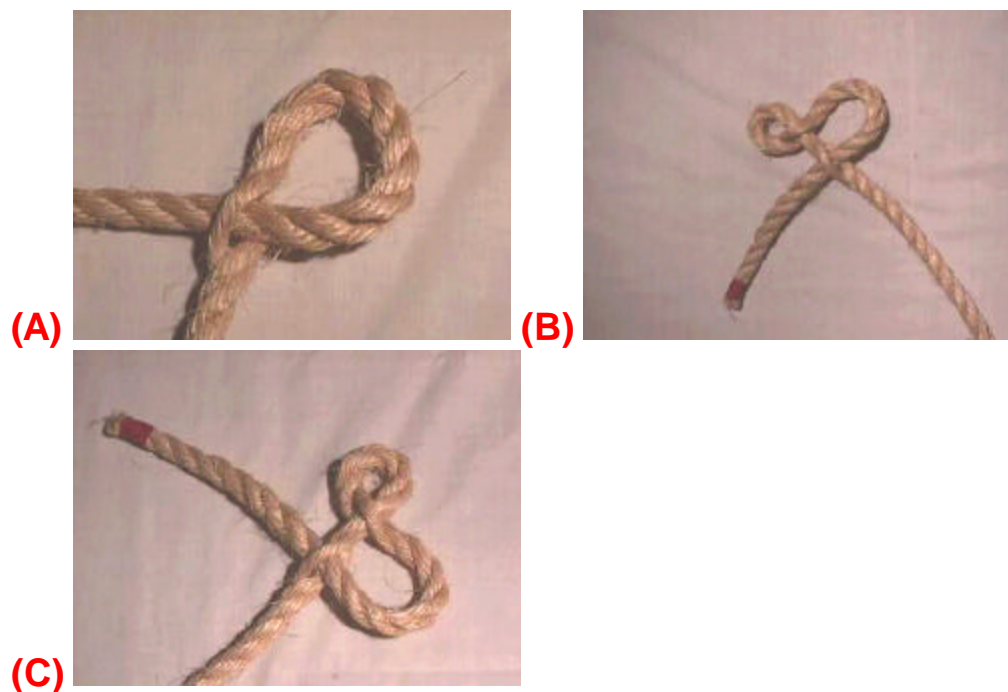
Clove Hitch



Loop Splice

Rope Halter*¹

1. Use 2 hog rings to keep one end of the rope from fraying. Mark 14" from the hog rings.
2. Lay the rope with the short end to your right.
3. Make a loop with a 1/2" opening have the 14" mark at the center of the loop. Keep the short end above the long end.
4. Pass the long end under 1 strand and over 2 strands of the short end, as close to the loop as possible, pull it tight. (Don't pull your loop closed). **(A)** Keep the rope flat on a table. Next pass the short end under 1 strand and over 2 strands of the long end, as close to the last weave you made as possible, pull it tight. Keep the rope flat on a table. **(B),(C)**



5. Measure from the end of the loop back 2" on the short end of the rope and mark it.
6. Have the loop on your left and the long end above the short end.

¹ Modified from <http://www.madbbs.com/users/timhull/equipment/halter.htm>

7. Keeping the rope flat on a table. Lift the first strand up past the mark. Twist it counter clockwise 1/2 turn. **(D)**



(D)



(E)

8. From above pass the long end down through the loop. **(E)** Keeping the rope flat on a table. Take the next strand twist it counter clockwise 1/2 turn and put the long end up through the loop. Keep the rope flat on a table. Then twist the next strand counter clockwise 1/2 turn and pass the long end down through the loop. **(G),(H)** *NOTE: The pictures below show the rope end longer than it should be. Ideally the twists should be as close as possible to the hog rings.*



(G)



(H)

9. Put a hog ring as close to the last loop as possible. Then cut off the extra rope. I didn't have any hog rings at the time we took these pictures, so I couldn't show it on the halter.

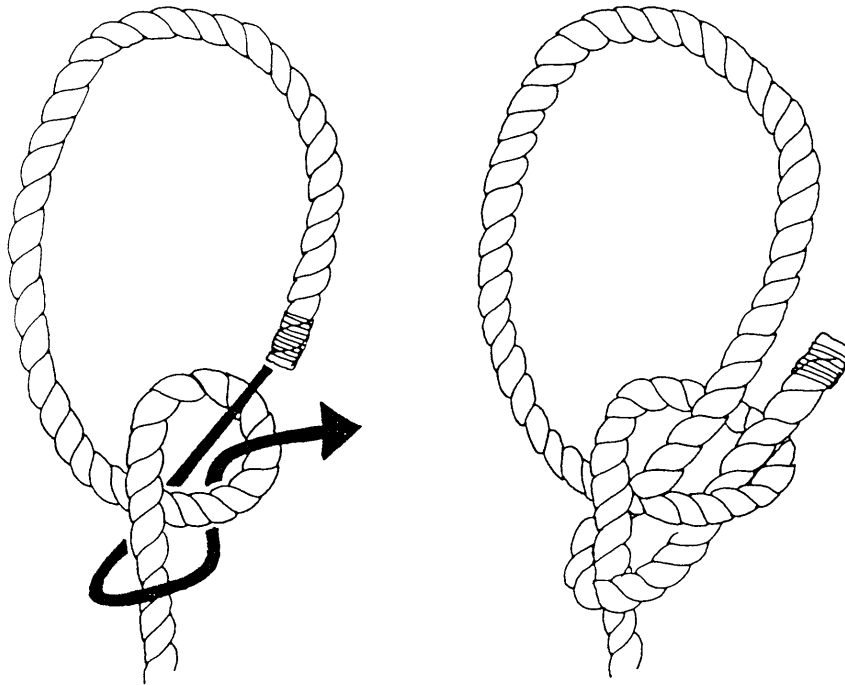
10. Pass the long end through the first loop you made. (I)



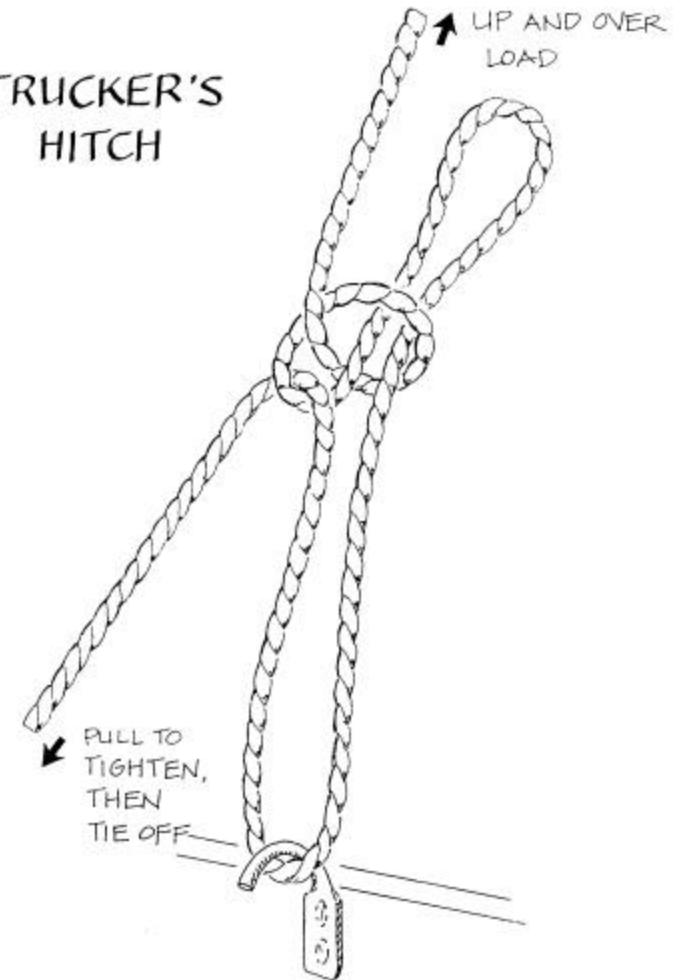
(I)

11. Complete the halter by making a Crown Splice in the free end.

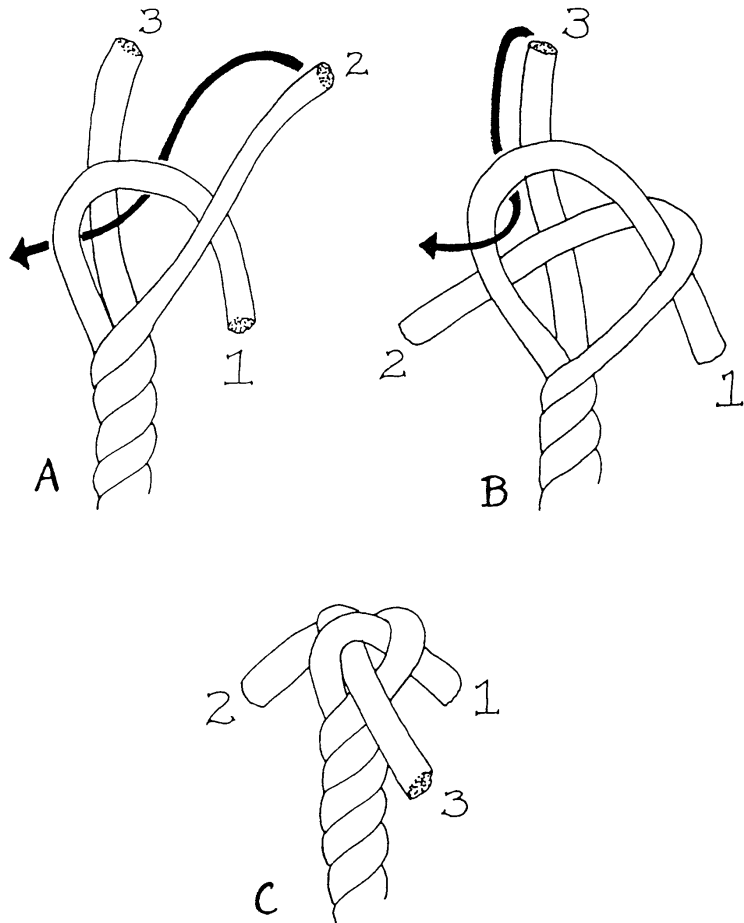
Bowline



TRUCKER'S HITCH



Crown Knot (beginning of Crown Splice)



Crown Splice

