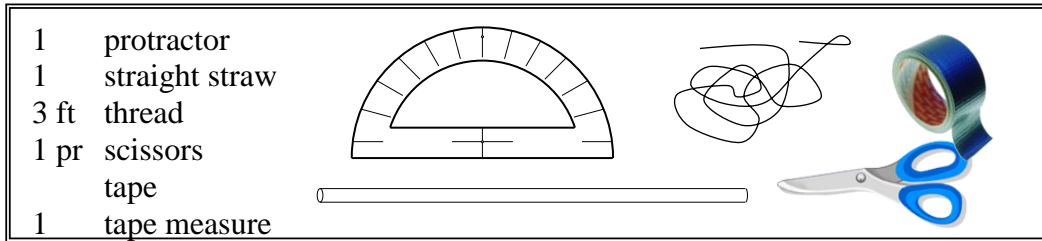


Geometry

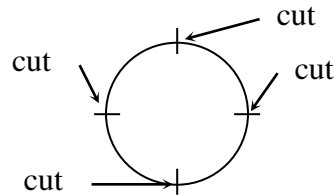
TRIGONOMETRY APPLICATIONS

I. Build an angle measuring device in the following way.

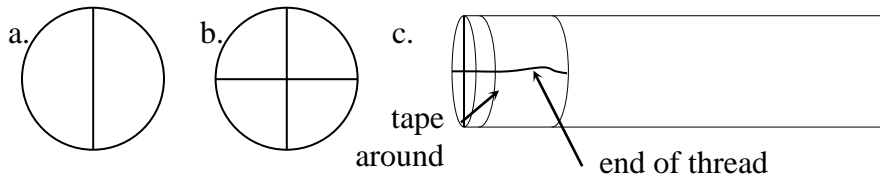
Materials:



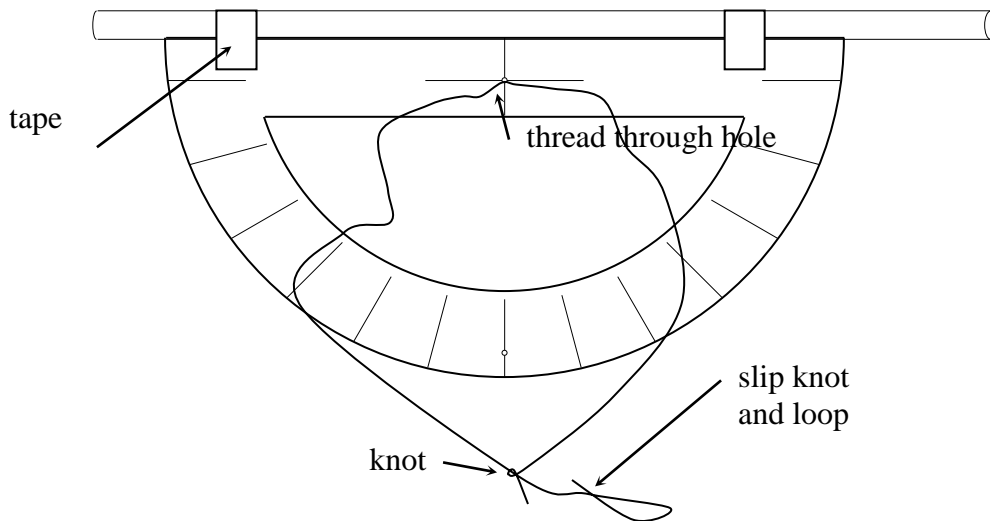
1. Use the scissors to make four small cuts in one end of the straw. One each at the top, bottom, left and right.



2. a. Take a small length of thread and place between and in the cuts at the top and bottom.
- b. Repeat this for the cuts on the left and right.
- c. Wrap a small piece of tape around the end of the straw to hold the thread in place.



3. Tape the straw to the straight edge of the protractor.
4. Loop the remainder of the thread through the hole in the protractor at the middle of the straight edge. Tie a knot close to the end and then a slip knot and loop at the end.



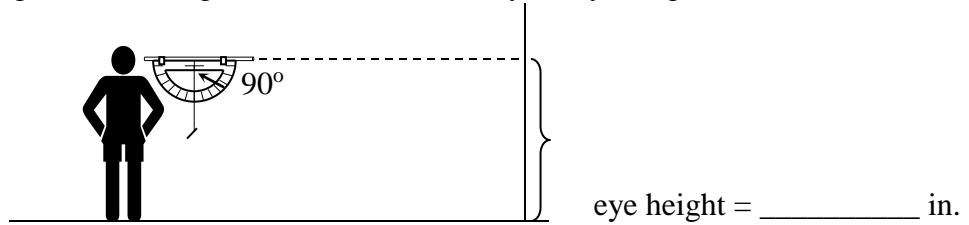
5. Place a weight, such as a pencil, in the loop to hold the thread straight.

Geometry

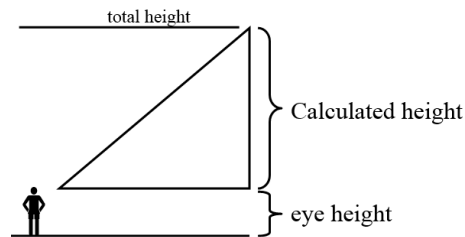
TRIGONOMETRY APPLICATIONS

II. Find your eye height.

1. Look through the instrument at a spot on the wall.
2. Raise or lower the instrument until the thread hangs at the 90° mark.
3. Have a partner place their finger on the wall so that it looks to be under the cross threads in the straw.
4. Measure the height of their finger on the wall. This is your eye height.



For all calculations, you must add your eye height to the calculation to get the final result.



III. Use your instrument to answer the following. **Draw and label a figure for each.**

1. Find the height of the classroom.
2. Find the height of the flag pole at the front of the building.

3. Find the height of the 8th grade rotunda area to the roof.

4. Find the height of the building in which you live.