

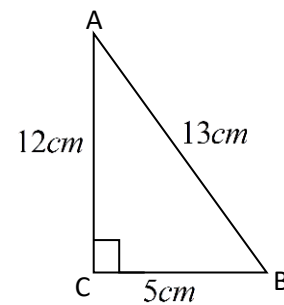
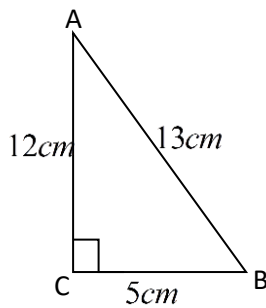
Trig. Ratios and Angle Measures:**SOH - CAH - TOA**

$$\sin \angle = \frac{\text{opposite}}{\text{hypotenuse}}$$

$$\cos \angle = \frac{\text{adjacent}}{\text{hypotenuse}}$$

$$\tan \angle = \frac{\text{opposite}}{\text{adjacent}}$$

*** The side of opposite or adjacent depends on the angle of reference.***



$$\sin \angle A =$$

$$\sin \angle B =$$

$$\cos \angle A =$$

$$\cos \angle B =$$

$$\tan \angle A =$$

$$\tan \angle B =$$

When using your calculator, make sure that it is in **“DEGREE MODE”**. Find the value of each to the nearest ten thousandth (4th decimal place)

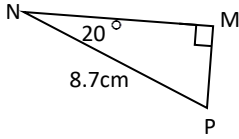
1. $\sin 30^\circ =$

2. $\cos 30^\circ =$

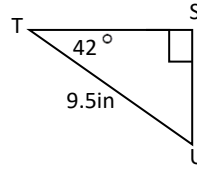
3. $\tan 30^\circ =$

Using Trig. Ratios, find the length each side to the nearest hundredth. **Color your angle of reference and identify the side that is given a measure and the side you have to find (as opp, adj, or hyp).** Show all work.

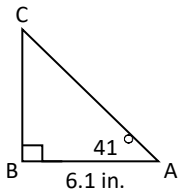
4. Find the length of \overline{MP} .



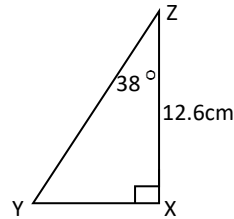
5. Find the length of \overline{ST} .



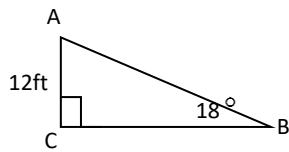
6. Find the length of \overline{BC} .



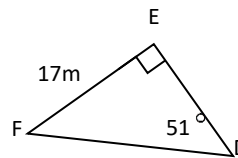
7. Find the length of \overline{YZ} .



8. Find the length of \overline{BC} .

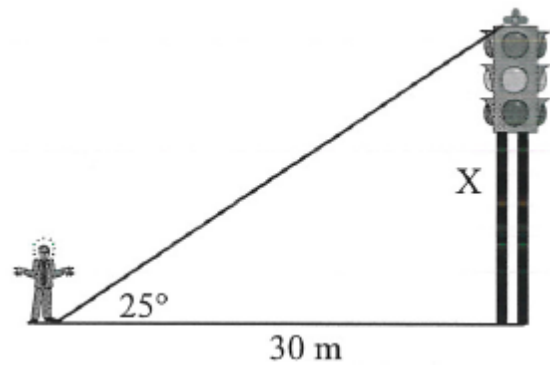


9. Find the length of \overline{DF} .

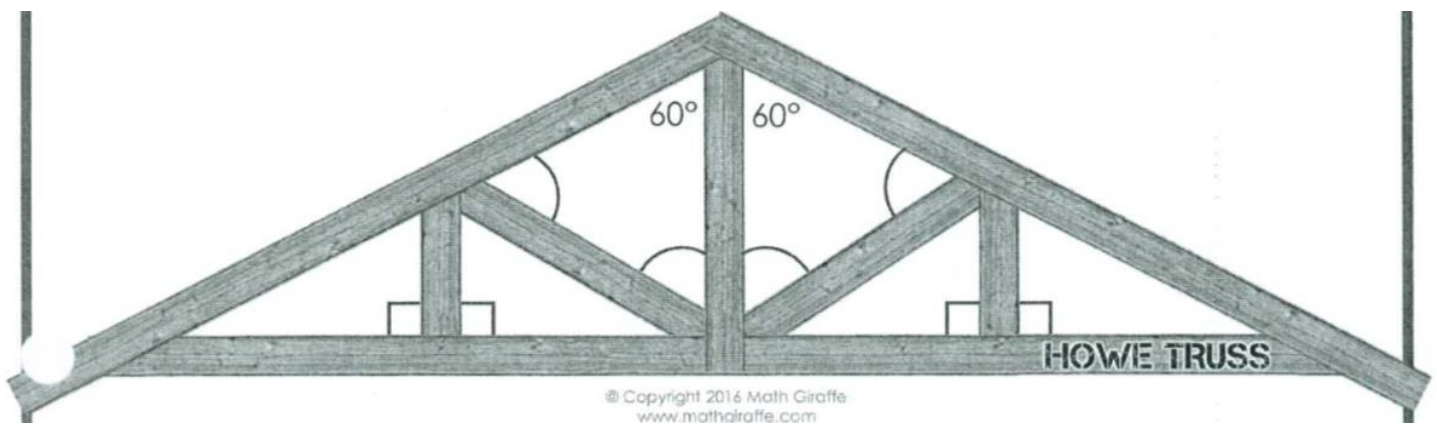


Application Word problems:

10. Using the diagram below and your knowledge of trig., find the height of the traffic light to the nearest meter.



11. If the truss pictured below is 40 ft long, what is its height?



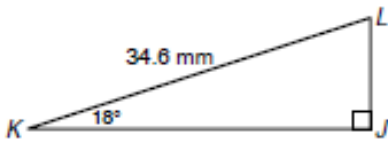
Applied Geometry

CW/HW Ch8 D4: Trig in Right Triangles (find the missing side length)

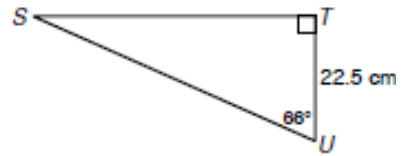
$$\sin \angle = \frac{O}{H} \qquad \cos \angle = \frac{A}{H} \qquad \tan \angle = \frac{O}{A}$$

Find each length. Round your answer to the nearest hundredth. Color or highlight the angle measure and label the sides you will be using as Opp, Adj, or Hyp. Show all work.

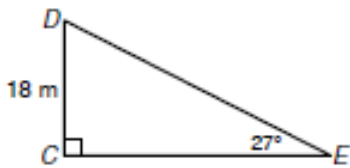
1. Find the length of \overline{KJ} .



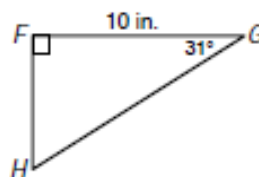
2. Find the length of \overline{ST} .



3. Find the length of \overline{DE} .

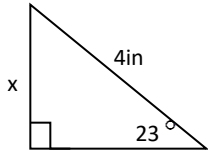


4. Find the length of \overline{GH} .

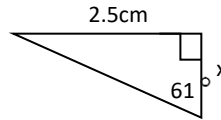


Find the value of x to the nearest tenth.

5.

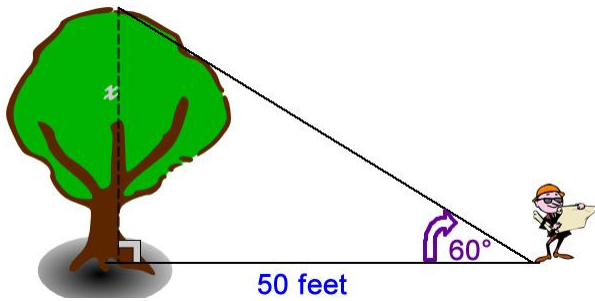


6.



Application trig. Problems.

7. Using the diagram below and your knowledge of trigonometry, find the height of the tree to the nearest foot.



8. An airplane has left Albany International Airport. Using the information in the diagram and your knowledge of trigonometry, find the altitude " h " of the plane to the nearest foot.

