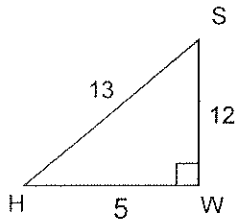
Geometry
Ch 12 Review WS 2015

Round answers to **three decimal** places unless otherwise specified!

Name:_____
Period:____

1a. Find the sine, cosine, and tangent of the given angles.

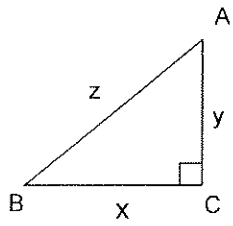


cos H =

tan S =

sin H =

b. Find the sine, cosine, and tangent of the given angles.



cos A =

tan B =

sin A =

2a. Solve for the measure of the given angle.

a. $\cos A = \frac{6}{7}$

b. $\tan K = 1$

c. $\sin R = \frac{-1}{2}$

b. Solve for the measure of the given angle.

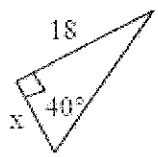
a. $\cos^{-1}\left(\frac{3}{12}\right) = Q$

b. $\tan^{-1}\left(\frac{7}{3}\right) = T$

c. $\sin^{-1}\left(\frac{8}{9}\right) = Z$

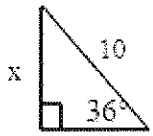
3. Find the length of the missing side or measure of the missing angle showing all steps.

a)



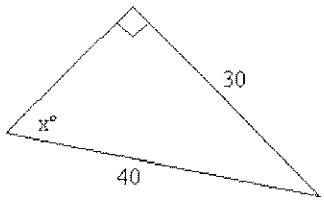
b)

c)



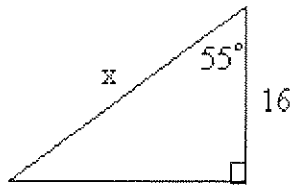
3. Find the length of the missing side or measure of the missing angle showing all steps.

d)

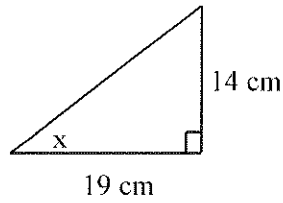


e)

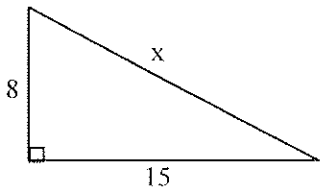
a)



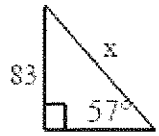
f)



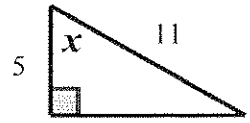
g)



h)



i)



4. Juan climbed a hill that was at a 24° angle with the ground. When he reached the top he a direct distance of 57 feet from where he started. What was his altitude above the ground?

5. To land, an airplane will approach an airport at a 4° angle of depression. If the plane is flying at 20,000 ft, find the ground distance from the airport to the point directly below the plane when the pilot begins descending.

6. A mountain climber, standing at the base of a mountain, estimates the angle of elevation to the top of the mountain as 48°. The mountain is 2500 feet tall. What is the straight line distance from the mountain climber to the top of the mountain?

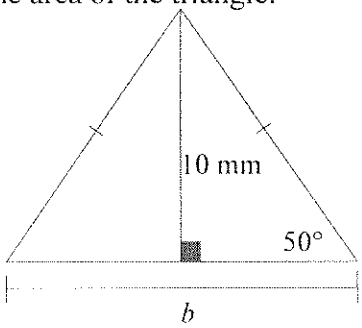
7. At what height will a ladder rest against a building if it is 14 feet long and the base is placed at angle at 65° with the ground. Draw a diagram and show all work to solve.

8. A wire anchored to the ground braces a pole. The wire is 20 feet long and is attached to the pole 15 feet from the base of the pole. What angle does the wire make with the ground? Draw a diagram and show all work to solve.

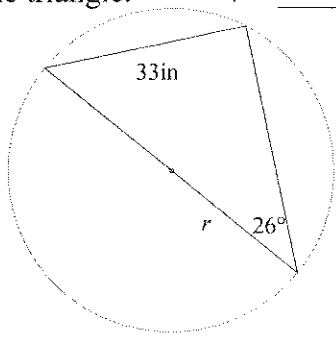
9. Find the area of the triangle.

h =10 mm

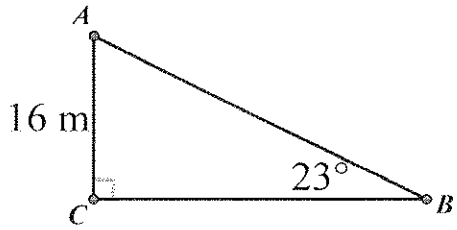
$A \approx$ _____



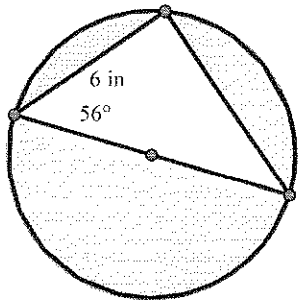
10. Find the radius of the triangle. $r \approx$ _____



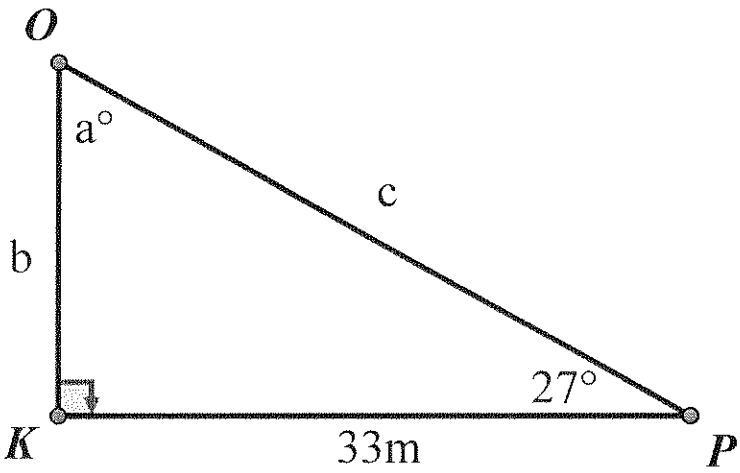
11. Find the area of the triangle. $A \approx$ _____



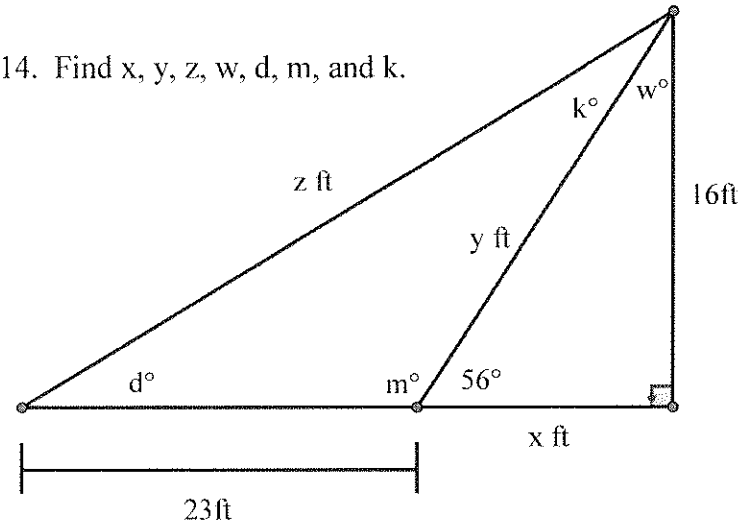
12. Find the area of the shaded region. $A \approx$ _____



13. Find a, b, and c.



14. Find x, y, z, w, d, m, and k.



15. What are the definitions for tangent, sine, and cosine?