SOH-CAH-TOA Test Review Name: _____

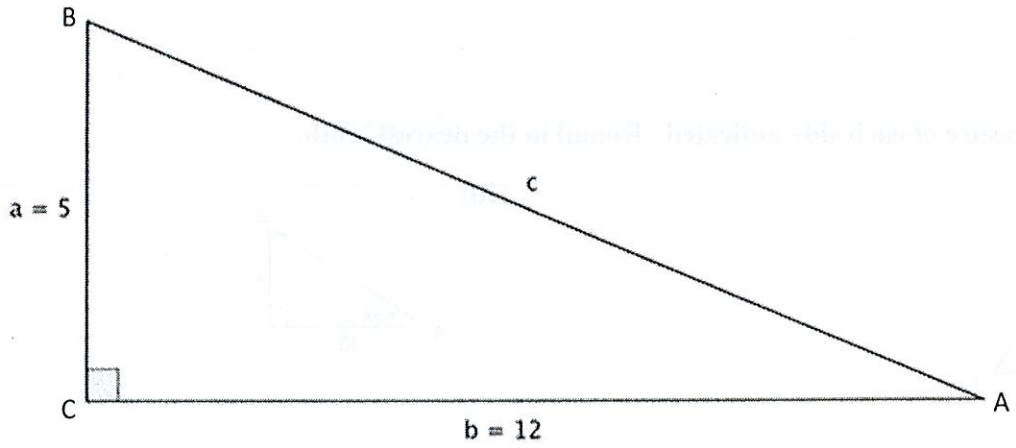
Using SOH-CAH-TOA, answer the following.

1) **What does the SOH represent?**

2) **What does the CAH represent?**

3) **What does the TOA represent?**

Use the picture below for problems 4-6.



4) **Find the length of the missing side of the triangle above.**

5) **Set up the appropriate trigonometric ratios. (Don't forget to label the pieces)**

a) $\sin(A) =$ d) $\sin B =$

b) $\cos(A) =$ e) $\cos B =$

c) $\tan(A) =$ f) $\tan B =$

6) **Solve for the unknown angles.**

a) $< A =$ b) $< B =$

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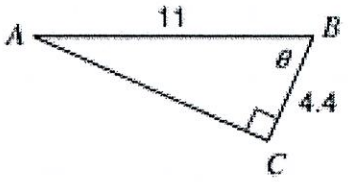
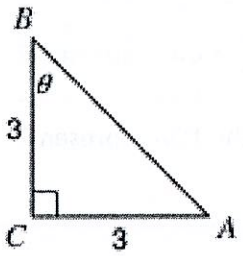
Solve for the missing angle round the nearest tenth.

7)

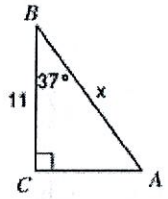


8)

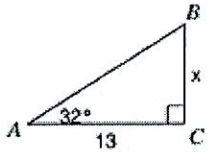


Find the measure of each side indicated. Round to the nearest tenth.

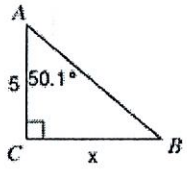
9)



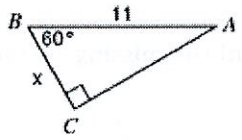
10)



11)

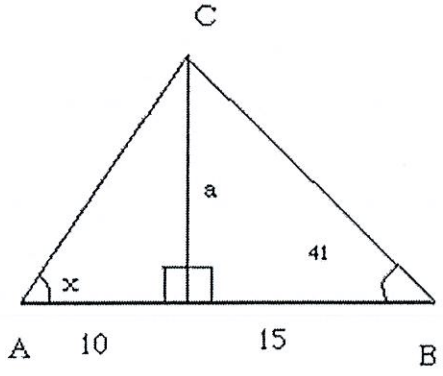


12)



Solve for *a* and *x*.

13)



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Solve for the missing variable round to the nearest tenth:

14) $\sin(50°) = x$

15) $\tan(45°) = x$

16) $\cos(120°) = x$

17) $\tan(x) = 1.5$

18) $\sin(x) = \frac{2}{5}$

19) $3\cos(x) = 2$

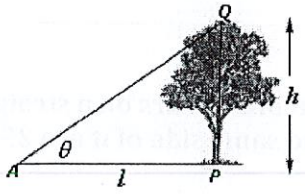
20) $12\sin(x) + 8 = 18$

21) $5\tan(x) - 6 = 4$

Solve the following problems (Hint draw a picture)

22)

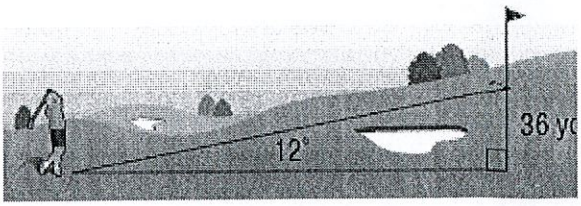
The angle of elevation of the top of a tree is 30^0 from a point 28 ft away from the foot of the tree. Find the height of the tree rounded to the nearest feet.



23) A ladder with its foot on a horizontal flat surface rests against a wall. It makes an angle of 30° with the horizontal. The foot of the ladder is 41 ft from the base of the wall. Find the height of the point where the ladder touches the wall.

Picture:

24) **A golfer is standing at the tee, looking up to the green on a hill. If the tee is 36 yards lower than the green and the angle of elevation from the tee to the hole is 12°, find the distance from the tee to the hole.**



25) **A tree stand 30 yards tall is attached to a zip cord. The angle of depression between the zip line and a platform on the ground is 15° , find the distance you would travel on this zip line**

Picture:

26) **From the top of a tower of height 50 ft, the angles of depression of two cars on a straight road at the same level as that of the base of the spire and on the same side of it are 25° and 40°. Calculate the distance between the two cars.**

Picture: