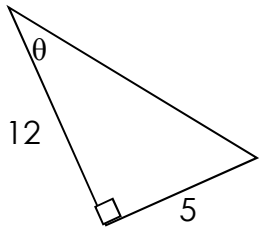
Trig. 6
Algebra II B

Name:_____
Hour:_____

1. Find the exact values of the six trig functions for angle θ in the triangle below.



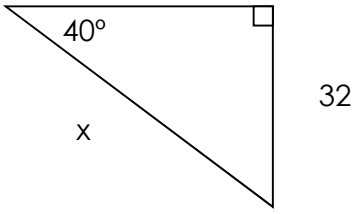
$\sin\theta =$ $\csc\theta =$

$\cos\theta =$ $\sec\theta =$

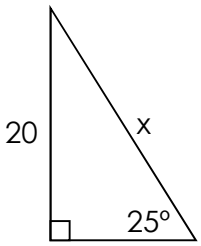
$\tan\theta =$ $\cot\theta =$

Find the value of x without a calculator.

2.



3.



4. Sketch a triangle that has an acute angle θ. If $\sin\theta = \frac{4}{5}$, find the values of the other five trig functions for angle θ.

$\sin\theta =$ $\cos\theta =$ $\tan\theta =$

$\csc\theta =$ $\sec\theta =$

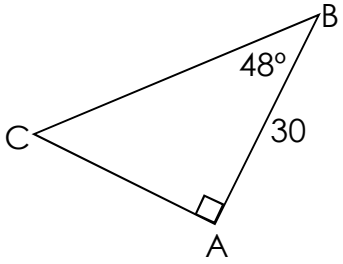
5. Sketch a triangle that has an acute angle θ. If $\sin\theta = \frac{5}{13}$, find the values of the other five trig functions for angle θ.

$\sin\theta =$ $\cos\theta =$ $\tan\theta =$

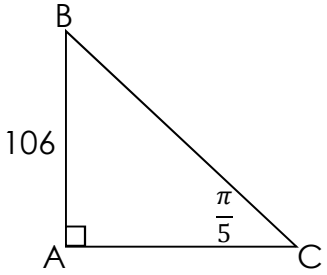
$\csc\theta =$ $\sec\theta =$

Use a calculator Solve the right triangle. (Make sure your calc is in the correct mode)

6.



7.



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8. A 20 ft ladder is leaning against a building so that the angle between the ground and the ladder is 72°. How high does the ladder reach on the building?

10. From the top of a 200-ft. lighthouse, the angle of depression to a ship in the ocean is 20°. How far is the ship from the base of the lighthouse?