Algebra 2A

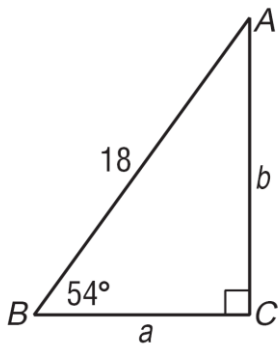# Unit 9 Review (Trig)     Name_____Hr._____
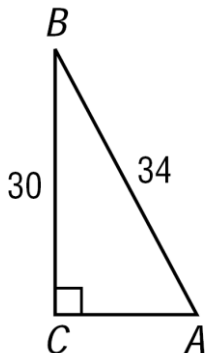
**Show ALL work for each problem.**

1.  Solve the triangle.  Round measures of sides        **1.**  $m\angle A =$_____
    to the nearest tenth and measures of angles
    to the nearest degree.                                      $a =$_____



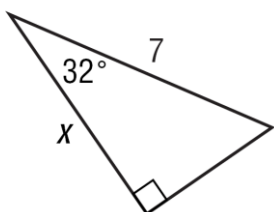                                                               $b =$_____

2.  Solve the triangle.  Round measures of sides        **2.**  $m\angle A =$_____
    to the nearest tenth and measures of angles
    to the nearest degree.                                      $m\angle B =$_____



                                                               $b =$_____

3.  Write an equation involving sine, cosine, or tangent    **3.**  Equation:_____
    that can be used to find $x$.  Then solve the equation,
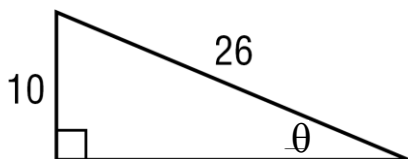    rounding to the nearest degree.                                 $x =$_____

**4.** From the top of a cliff, a geologist spots a dry riverbed. The measurement of the angle of depression to the riverbed is 70°. The cliff is 50 meters high. How far is the riverbed from the base of the cliff?

4._____

**5.** From a lookout point on a cliff above a lake, the angle of depression is 12°. The boat is 3 kilometers from the shore just below the cliff. What is the height of the cliff from the surface of the water to the lookout point?

5._____

**6.** Find the **exact value** of the six trigonometric functions for θ shown in the figure below.



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

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

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