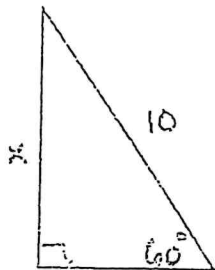


Math 3 8.1-8.3 Review Worksheet Name \_\_\_\_\_

In general, radicals should be simplified and fractions should be reduced.

1. Given  $\sin\theta = \frac{12}{13}$ , evaluate the other 5 trig functions.  $\cos\theta =$   $\csc\theta =$   
 $\tan\theta =$   $\sec\theta =$   
 $\cot\theta =$

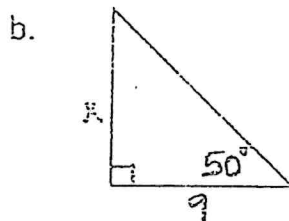
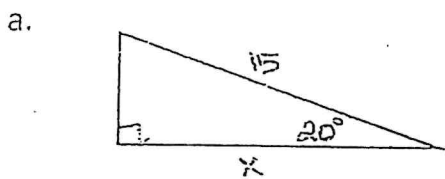
2. Show two different ways to find  $x$  in the triangle below. Explain how you found it.



Method 1:

Method 2:

3. For the triangles below, which 2 sides are involved in solving for  $x$ ? (Choices are hypotenuse, opposite and/or adjacent.) Which trig function would you choose to solve for  $x$  using the given information? Solve for  $x$ .



4. Find one positive and one negative coterminal angle for the angles given below. Then explain how you found them and why you did what you did.

a.  $25^\circ$

b.  $\frac{\pi}{7}$

5. a. Convert  $50^\circ$  to radians

b. Convert  $\frac{7\pi}{10}$  to degrees.

6. Sketch the angles given below in standard position. Then find the reference angle,  $\theta'$ .

a.  $\theta = -460^\circ$



$\theta' =$  \_\_\_\_\_

b.  $\theta = \frac{7\pi}{6}$



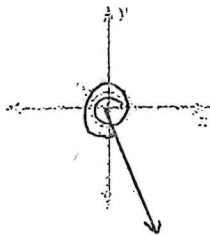
$\theta' =$  \_\_\_\_\_

7. Given the terminal side of an angle in standard position passes through  $(-4, 2)$ , find the six trig functions of the angle.

$\sin\theta =$                        $\csc\theta =$   
 $\cos\theta =$                        $\sec\theta =$   
 $\tan\theta =$                        $\cot\theta =$

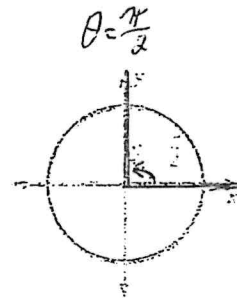
8. Determine whether the trig functions of the angle  $\theta$  sketched below are positive, negative, zero, or undefined.

a.



$\sin\theta:$   
 $\cos\theta:$   
 $\tan\theta:$

b.



$\sin\theta:$   
 $\cos\theta:$   
 $\tan\theta:$

9. a. In your own words, where does the ordered pair  $(\frac{\sqrt{3}}{2}, \frac{1}{2})$  come from for  $\theta = \frac{\pi}{6}$ ?

b. What is the exact value of  $\cos \frac{5\pi}{6}$ ?

10. If  $\cos\theta = 0$ , what is  $\sec\theta$ ? Explain why.

11. \_\_\_\_\_ : Use the graph to find the measure of  $\theta$ . Explain your reasoning.

