Math 3 8.1-8.3 Review Worksheet   Name_____

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

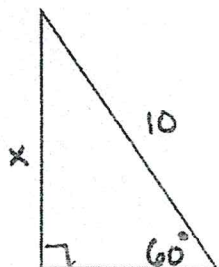1. Given $sin\theta = \frac{12}{13}$, evaluate the other 5 trig functions. $cos\theta =$ $csc\theta =$

$tan\theta =$ $sec\theta =$

$cot\theta =$

2. Show two different ways to find x in the triangle below. Explain how you found it.
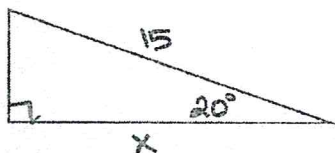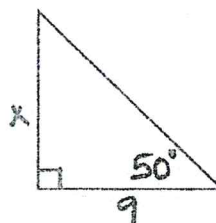
            Method 1:   Method 2:

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.

a.

b.

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°   b. $\frac{\pi}{7}$

5. a. Convert 50° to radians

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

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

    a. $\theta = -460°$
                                        b. $\theta = \dfrac{7\pi}{6}$
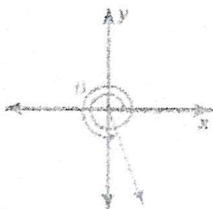
θ' = _____   θ' = _____

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

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

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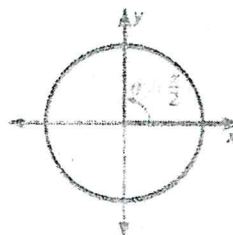
        $\tan\theta =$ $\cot\theta =$

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

    a.   sinθ: b.   sinθ:

                                 cosθ: cosθ:

                                 tanθ: tanθ:

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

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

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

11.   : Use the graph to find the measure of θ. Explain your reasoning.