Name: _____   Date: _____

Instructions: Please complete the following problems. On the back, you will find a fun crossword puzzle with some questions and vocabulary from 4.1-4.3.

Problem 1. Fill in the blanks for each part:
  A) In quadrant I: _____ functions are positive.
  B) In quadrant II: _____ and _____ are positive.
  C) In quadrant III: _____ and _____ are positive.
  D) In quadrant IV: _____ and _____ are positive.

Problem 2. In which two quadrants is $\tan(\theta)$ negative?

Problem 3. If $\sin\theta < 0$ and $\sec\theta < 0$, which quadrant is θ in?

Problem 4. If $\sin\theta > 0$ and $\tan\theta > 0$, which quadrant is θ in?

Problem 5. Given the point $(3, -4)$, find the six trigonometric functions.

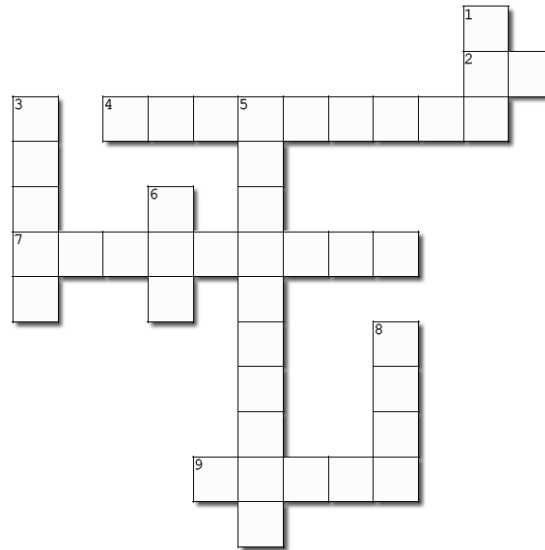**Problem 6.** If $\cos\theta = -\frac{7}{25}$ and θ is in the second quadrant, find $\tan\theta$.

Problem 7. If $\cos\theta = \frac{3}{5}$ and $\tan\theta < 0$, find $\sin\theta$.

Problem 8. Determine if $\sec\theta$ is an even or odd function.

Problem 9. Find the measure of the reference angle for a $120°$ angle.

Problem 10. Find the measure of the reference angle for a $290°$ angle.

Problem 11. Find the measure of the reference angle for a $200°$ angle.

Across

2. Yes or No: theta = r(s)
4. A negative angle is formed by rotating the initial side in this direction.
7. The acute angle formed by the terminal side and the x-axis is the _____ angle.
9. True or False: sin(x) is an even function.

Down

1. A unit circle is centered at the origin with radius value of this.
3. Tangent is positive in the first and _____ quadrants.
5. Two angles with the same initial and terminal sides are this.
6. Yes or No: Will the unit circle be provided on the exam?
8. True or False: The 6 trig functions for pi and -pi are the same.