Name:_____ Date:_____

HW PC 11 Ch 2 HW Lesson 4 Solving for Angles in All Four Quadrants

1. If $\sin\theta$ is equal to a negative ratio, then which quadrants will the angle be? What if the ratio is positive, which quadrant is it in?

2. If $\cos\theta$ is equal to a negative ratio, then which quadrants will the angle be? What if the ratio is positive, which quadrant is it in?

3. If $\tan\theta$ is equal to a negative ratio, then which quadrants will the angle be? What if the ratio is positive, which quadrant is it in?

4. If θ is in quadrant 3, then which trig ratio will be negative? $\sin\theta$ $\cos\theta$ or $\tan\theta$?

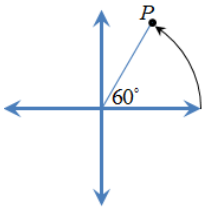
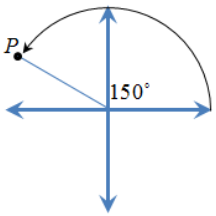
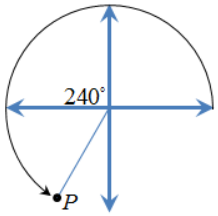
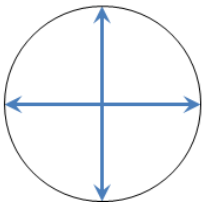
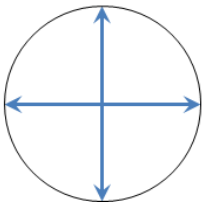
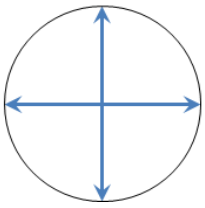
5. If θ is in quadrant 4, then which trig ratio will be negative? $\sin\theta$ $\cos\theta$ or $\tan\theta$?

6. Solve for θ , with $0 \le \theta \le 360°$. [REMEMBER: There are TWO answers!]

a) $\sin\theta = 0.8$	b) $\cos\theta = 0.85$	c) $\tan\theta = 0.3$
a) $\sin\theta = -0.9$	b) $\cos\theta = 0.125$	c) $\tan\theta = 0.25$

g) $3\sin\theta+5=4$	h) $\tan^2\theta-5=0$	i) $9\cos^2\theta-3=1$
j) $(\cos\theta+1)(3\sin\theta-2)=0$	k) $3\sin\theta=4\cos\theta$	L) $\sin\theta=\cos\theta$

7. A point ``P`` created by the endpoint of a terminal arm is on the circumference of an unit circle of radius 1. Given the angle in standard position, find the coordinates of point `P`.

a) 60° 	b) 150° 	c) 240° 
d) 225° 	e) 300° 	f) 315° 

8. Given each trig ratio, find the specified trig ratio without using a calculator:

a) $\sin\theta=0.5$ $\cos\theta=$ $\tan\theta=$	b) $\cos\theta=\dfrac{-\sqrt{2}}{2}$ $\sin\theta=$ $\tan\theta=$	c) $\tan\theta=-\sqrt{3}$ $\cos\theta=$ $\sin\theta=$

d) $\sin\theta = {}^{1}\!/\!_{\sqrt{2}}$ $\cos\theta =$ $\tan\theta =$	e) $\cos\theta = \frac{-\sqrt{3}}{2}$ $\sin\theta =$ $\tan\theta =$	f) $\tan\theta = \frac{1}{\sqrt{3}}$ $\cos\theta =$ $\sin\theta =$

9. If the point P(3,-5) is on the terminal arm of an angle in standard position. What is the value of $\sin\theta \times \cos\theta$? Note: This point is not on the circumference of an unit circle.

10. What is the value of $\sin\theta \times \tan\theta$ if point P(1.957, -0.412) is on the terminal arm of a circle with a radius of 2 units long?

11. If $\cos\theta = {}^{2a}\!/\!_{3}$, then what is the value of $\tan\theta$ in terms "*a*"?