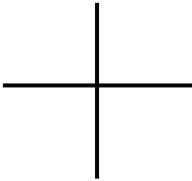
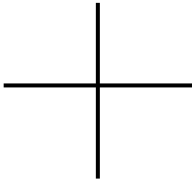
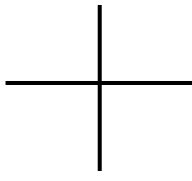
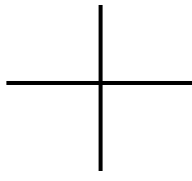


Extra Practice

Name _____

1. Complete the following table. (1 pts for each sketch, reference angle, and each coterminal angle)

Angle Measure	a. $\theta = \frac{12\pi}{17}$	b. $\theta = -725^\circ$	c. $\theta = -\frac{17\pi}{9}$	d. $\theta = 9.5^r$
Sketch the angle				
reference angle				
1 positive coterminal angle of θ				
1 negative coterminal angle of θ				

2. Complete the following statements with $>$, $<$, or $=$. Fully explain your answer. Use sketches as needed. (2 pts each)

$\sin\left(\frac{7\pi}{12}\right)$ _____ $\sin 3^\circ$	$\cos\left(\frac{11\pi}{13}\right)$ _____ $\cos\left(-\frac{11\pi}{13}\right)$	
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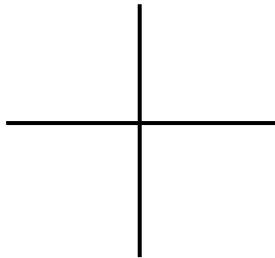
3. Given point (x, y) on a circle where $\theta = -150^\circ$ and radius 12, state the following:

$$\sin\theta = \underline{\hspace{2cm}} \quad \cos\theta = \underline{\hspace{2cm}} \quad \tan\theta = \underline{\hspace{2cm}}$$

$$(x, y) = (\underline{\hspace{2cm}}, \underline{\hspace{2cm}})$$

4. Given $\tan \beta = \frac{5}{12}$ and $\sin \beta < 0$ sketch the angle, labeling all sides appropriately, and find the exact value of each of the following. (2.5 pts for sketch, 0.5 pt for ratios)

a.



b. $\sin \beta = \underline{\hspace{2cm}}$

c. $\sec \beta = \underline{\hspace{2cm}}$

d. $\cos \beta = \underline{\hspace{2cm}}$

e. $\csc \beta = \underline{\hspace{2cm}}$

f. $\cot \beta = \underline{\hspace{2cm}}$

5. State the amplitude, period, phase shift, and vertical shift for each of the following. The graph should be less than a period from the origin. Clearly label both axes.

a. $y = -4 \tan\left(3x + \frac{\pi}{6}\right) + 2$

Pd:	Amp:
PS:	VS:

b. $y = 3 \csc(-4x + \pi) - 1$

Pd:	Amp:
PS:	VS: