Name:_____ Date:_____ Period:_____

Pre Calculus – Section 4.5 Worksheet: Intro to Amplitude & Period of Sine/Cosine Curve

Evaluate each of the following without a calculator.

1. $\sec\left(\frac{3\pi}{4}\right)$ 2. $\tan\left(\frac{11\pi}{6}\right)$ 3. $\sin(-5\pi)$ 4. $\cos\left(\frac{-2\pi}{3}\right)$ 5. $\cot\left(\frac{-11\pi}{4}\right)$

Find the reference angle θ' for the following angles. (See section 4.4)

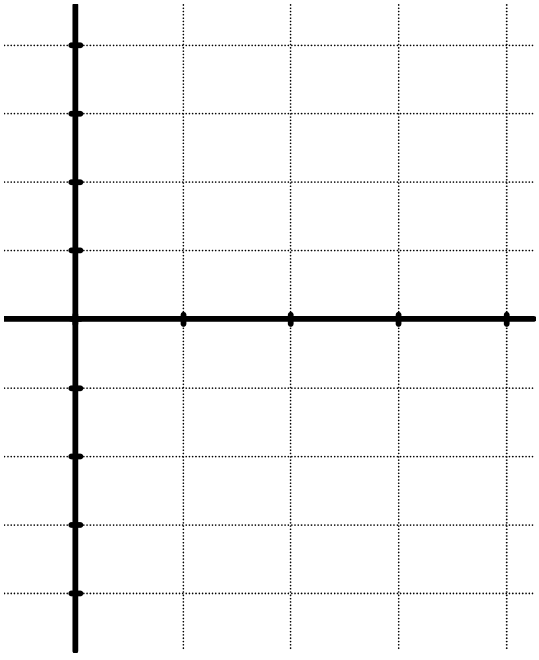
6. $\theta = 231°$ 7. $\theta = -472°$ 8. $\theta = \frac{11\pi}{9}$ 9. $\theta = -\frac{3\pi}{5}$

State the Period and Amplitude of each function.

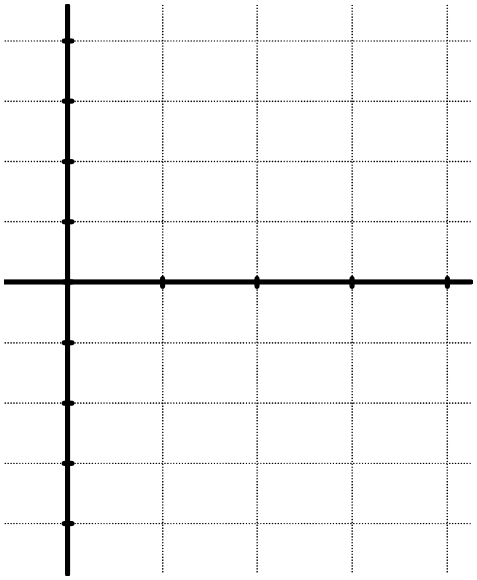
10. $y = 2.5\sin(2x)$ 11. $y = -4\cos\left(\frac{x}{5}\right)$ 12. $y = \frac{1}{7}\sin\left(\frac{3x}{4}\right)$

A. Sketch one period of the function.
B. Label the x and y axis.
C. Identify the amplitude and period of the function.
D. State the domain and the range of one period of the function.
E. State the maximum(s) and minimum(s) of the graph.
F. State the zeros of the graph.

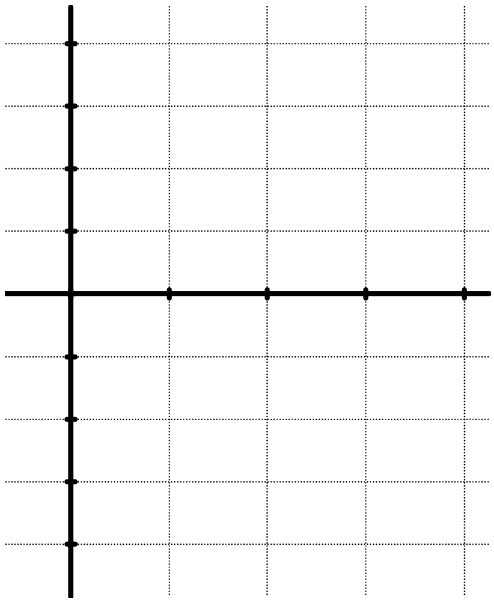
13. $y = 2\sin(3x)$



14. $y = -\frac{1}{2}\cos\left(\frac{x}{8}\right)$



15. $y = -4\sin\left(\frac{2x}{3}\right)$



16. $y = \cos(7x)$