Pre-Calculus AB Name_____

Worksheet 16 - Lesson 47

Date_____ Period____

Using degrees, find the amplitude and period of each function. Then graph.

1) $y = \frac{1}{2} \cdot \cos \theta - 1$

2) $y = 3\sin \theta + 2$

Using radians, find the amplitude and period of each function. Then graph.

3) $y = \frac{1}{2} \cdot \sin \theta - 1$

4) $y = \cos \theta - 1$

5) $y = \cos \theta + 1$

6) $y = 4\cos \theta + 1$

7) Evaluate. Do not use a calculator.

$\tan^{-1}\left(\tan\frac{7\pi}{4}\right)$

8) Evaluate. Do not use a calculator.

$\tan^{-1}\left(\tan\frac{5\pi}{6}\right)$

9) Evaluate. Do not use a calculator.

$\tan^{-1}\left(\tan\frac{4\pi}{3}\right)$

10) Evaluate. Do not use a calculator.

$\tan^{-1}\left(\tan -\pi\right)$

11) Evaluate. Do not use a calculator.

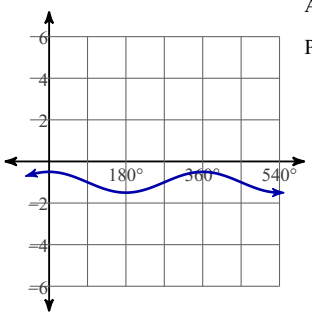
$\sin\tan^{-1}\frac{5}{4}$

12) Evaluate. Do not use a calculator.

$\cos\tan^{-1}\frac{3}{5}$

Answers to Worksheet 16 - Lesson 47

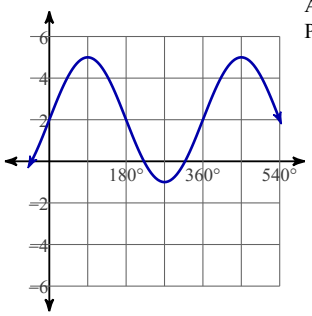
1)



Amplitude: $\frac{1}{2}$

Period: 360°

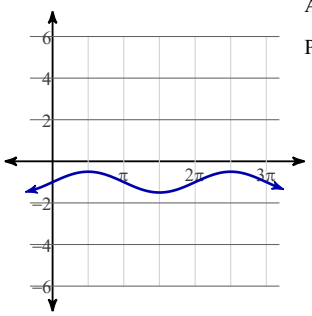
2)



Amplitude: 3

Period: 360°

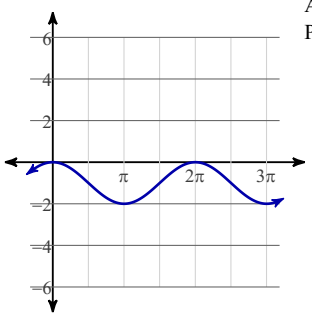
3)



Amplitude: $\frac{1}{2}$

Period: 2π

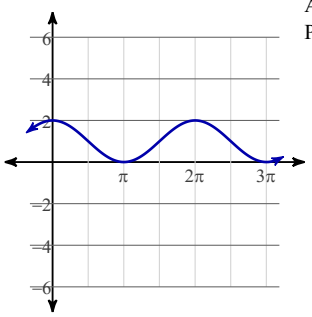
4)



Amplitude: 1

Period: 2π

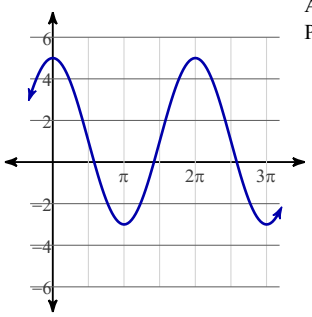
5)



Amplitude: 1

Period: 2π

6)



Amplitude: 4

Period: 2π

7) $-\frac{\pi}{4}$

8) $-\frac{\pi}{6}$

9) $\frac{\pi}{3}$

10) 0

11) $5 \cdot \frac{\sqrt{41}}{41}$

12) $5 \cdot \frac{\sqrt{34}}{34}$