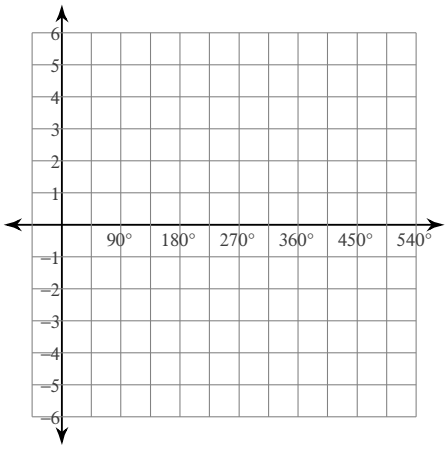
Kuta Software - Infinite Algebra 2 Name_____

Translating Graphs of Trig Functions

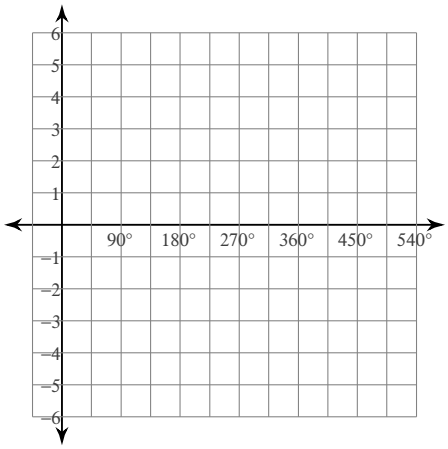
Date_____ Period____

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

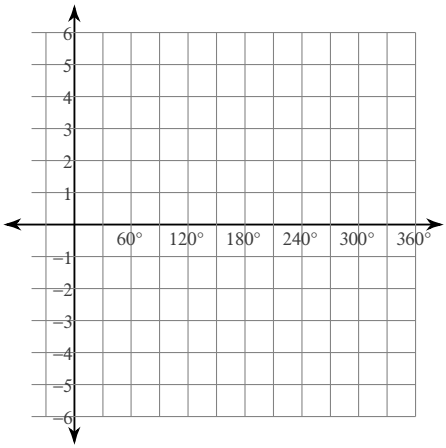
1) $y = \sin(\theta - 135)$



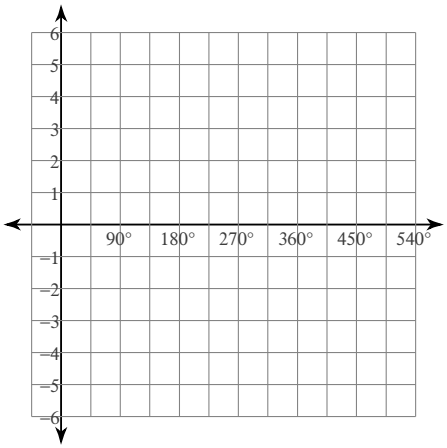
2) $y = \cos(\theta - 30)$



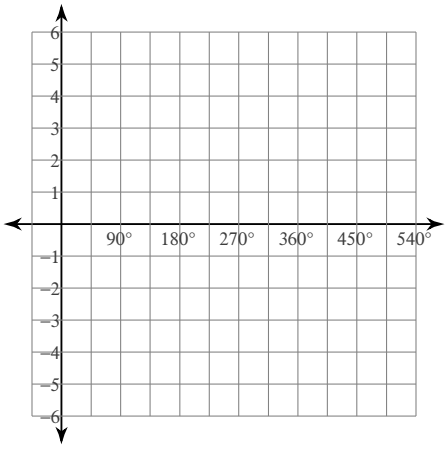
3) $y = -2 + \tan\theta$



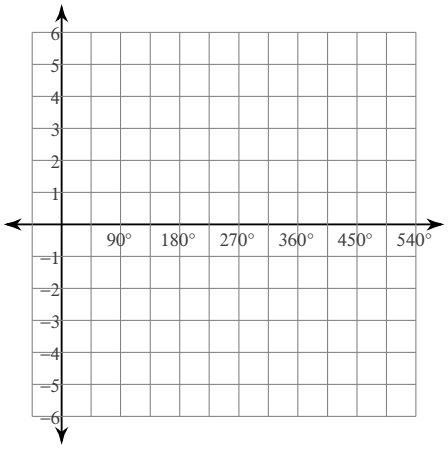
4) $y = 1 + \sin\theta$



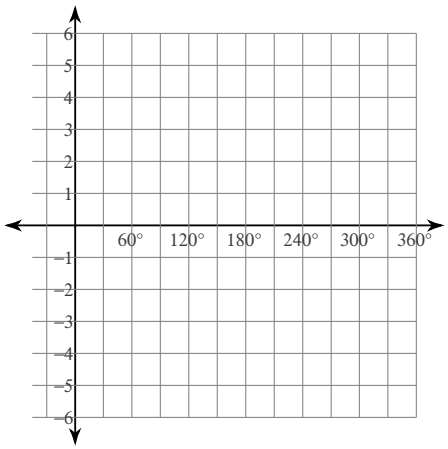
5) $y = 2 + \frac{1}{2}\csc(\theta - 135)$



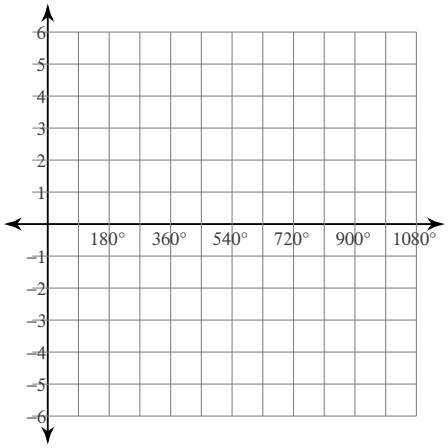
6) $y = 2 + 4\cos(\theta + 90)$



7) $y = 1 + \cot(2\theta - 90)$

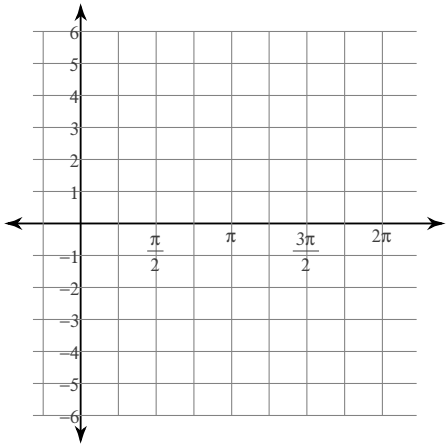


8) $y = 1 + \sec\left(\frac{\theta}{2} - 135\right)$

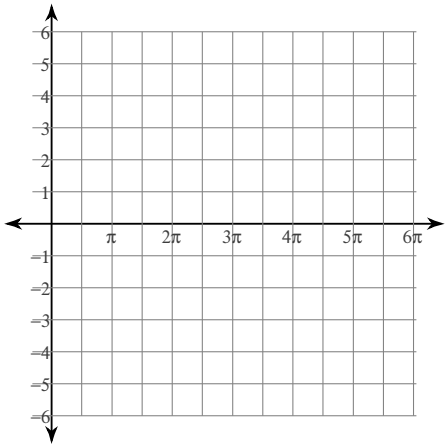


Using radians, find the amplitude and period of each function. Then graph.

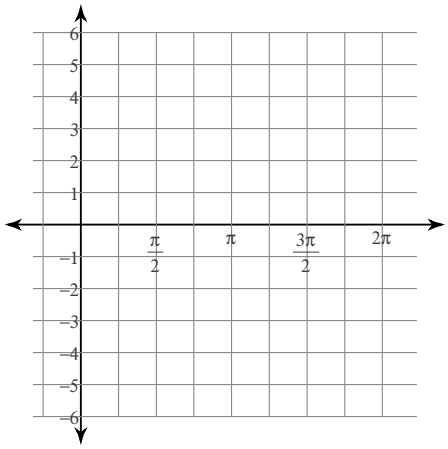
9) $y = \frac{1}{2}\sin\left(3\theta + \frac{\pi}{4}\right) + 1$



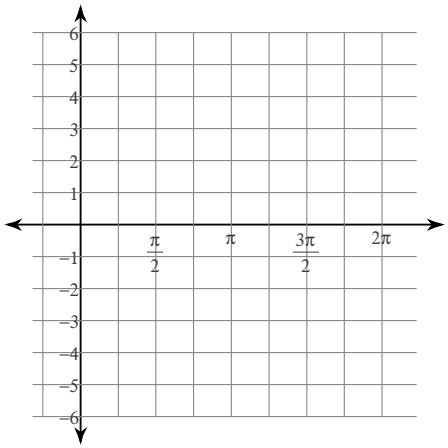
10) $y = 3\sec\left(\frac{\theta}{2} - \frac{5\pi}{6}\right) - 2$



11) $y = 4\cos\left(2\theta - \frac{5\pi}{6}\right) - 2$



12) $y = \frac{1}{2}\tan\left(2\theta - \frac{5\pi}{3}\right) + 1$



Kuta Software - Infinite Algebra 2 Name_____

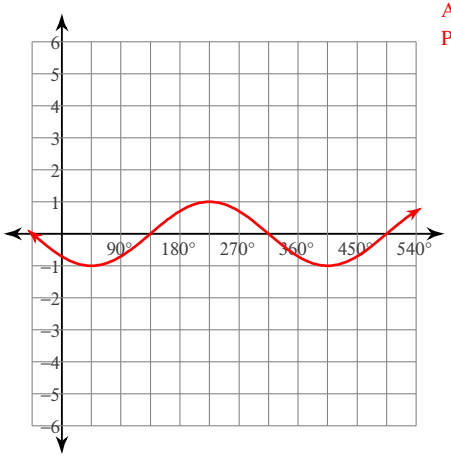
Translating Graphs of Trig Functions

Date_____ Period____

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

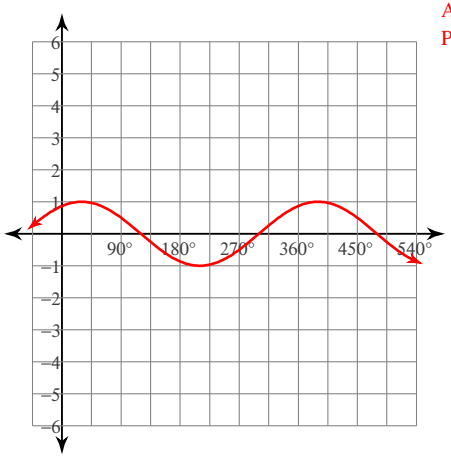
1) $y = \sin(\theta - 135)$

Amplitude: 1
Period: 360°



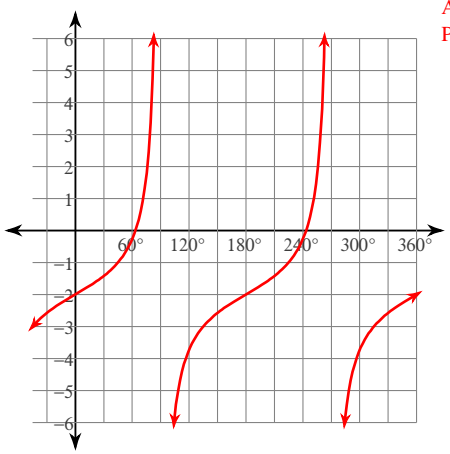
2) $y = \cos(\theta - 30)$

Amplitude: 1
Period: 360°



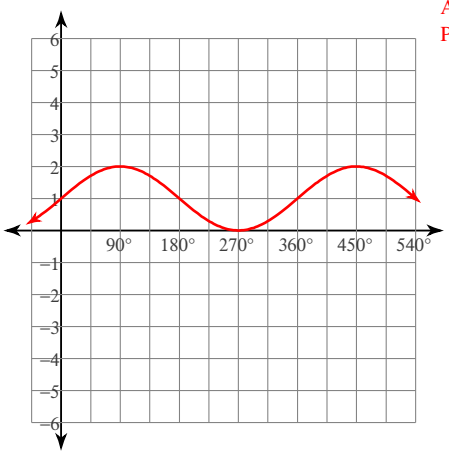
3) $y = -2 + \tan\theta$

Amplitude: None
Period: 180°



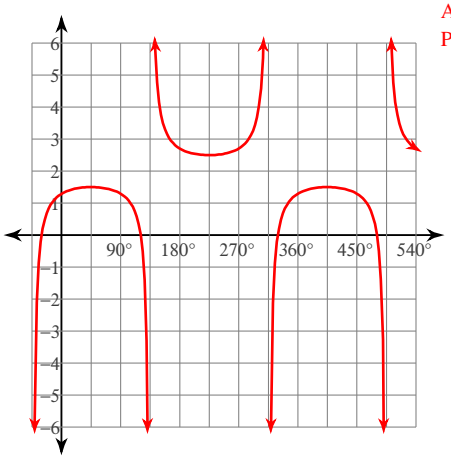
4) $y = 1 + \sin\theta$

Amplitude: 1
Period: 360°



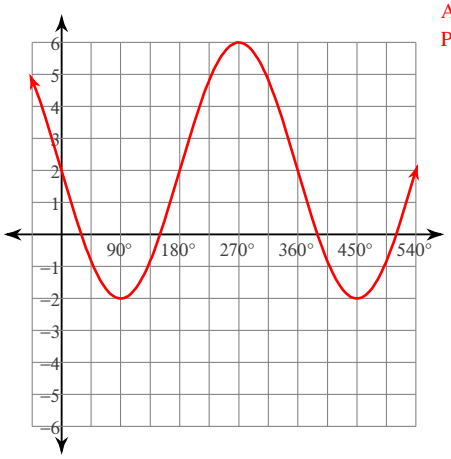
5) $y = 2 + \frac{1}{2}\csc(\theta - 135)$

Amplitude: None
Period: 360°

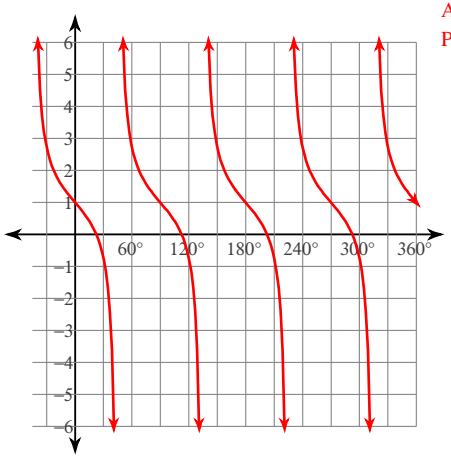


6) $y = 2 + 4\cos(\theta + 90)$

Amplitude: 4
Period: 360°

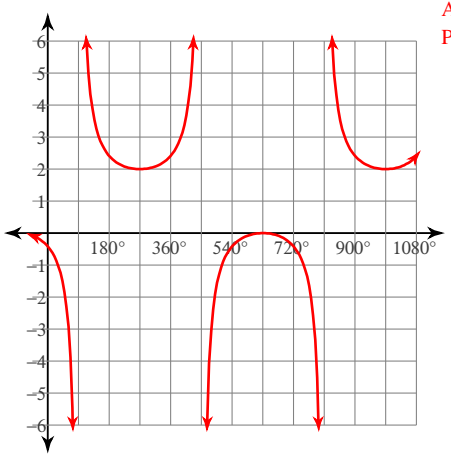


7) $y = 1 + \cot(2\theta - 90)$



Amplitude: None
Period: 90°

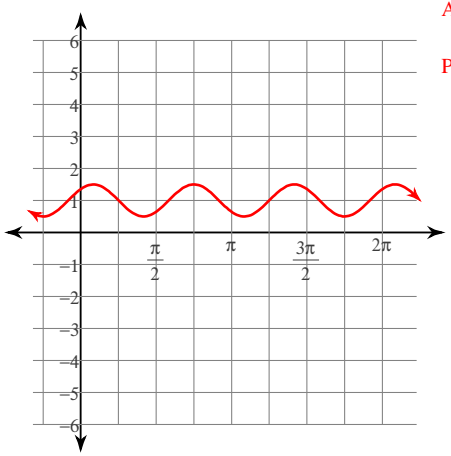
8) $y = 1 + \sec\left(\frac{\theta}{2} - 135\right)$



Amplitude: None
Period: 720°

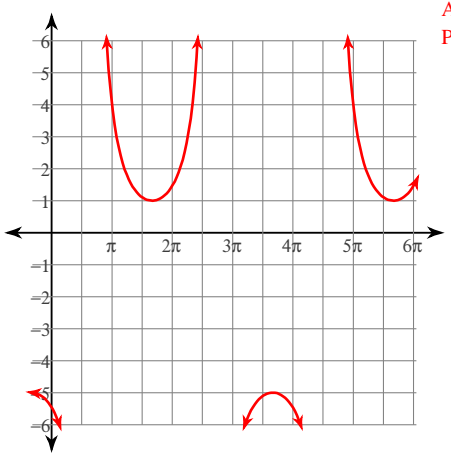
Using radians, find the amplitude and period of each function. Then graph.

9) $y = \frac{1}{2}\sin\left(3\theta + \frac{\pi}{4}\right) + 1$



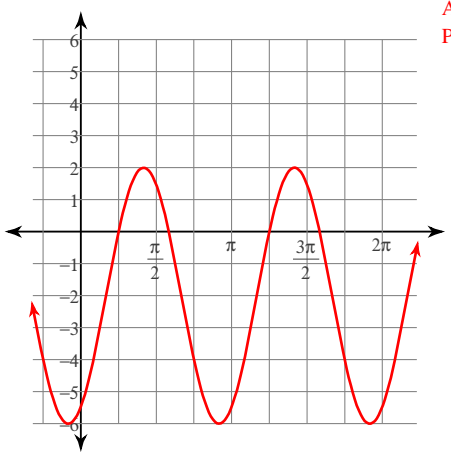
Amplitude: $\frac{1}{2}$
Period: $\frac{2\pi}{3}$

10) $y = 3\sec\left(\frac{\theta}{2} - \frac{5\pi}{6}\right) - 2$



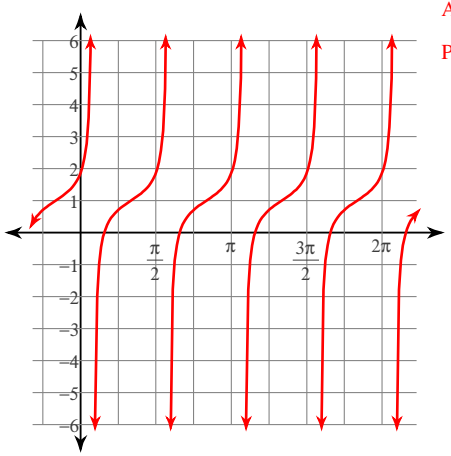
Amplitude: None
Period: 4π

11) $y = 4\cos\left(2\theta - \frac{5\pi}{6}\right) - 2$



Amplitude: 4
Period: π

12) $y = \frac{1}{2}\tan\left(2\theta - \frac{5\pi}{3}\right) + 1$



Amplitude: None
Period: $\frac{\pi}{2}$