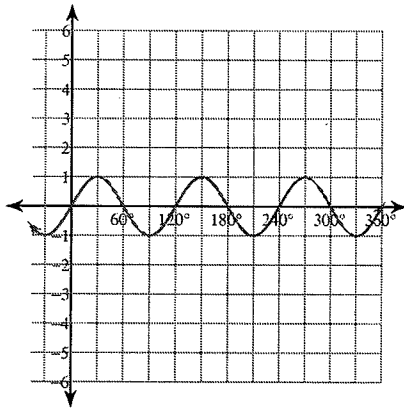


Graphing Trig Functions

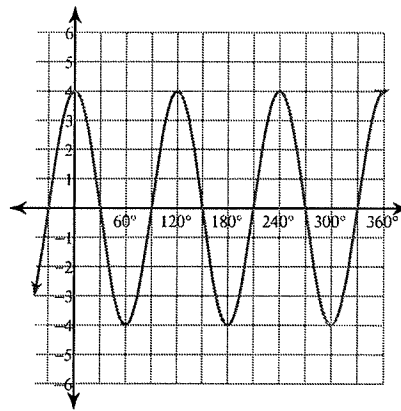
Using degrees, find the amplitude and period of each function. Then graph.

1) $y = \sin 3\theta$



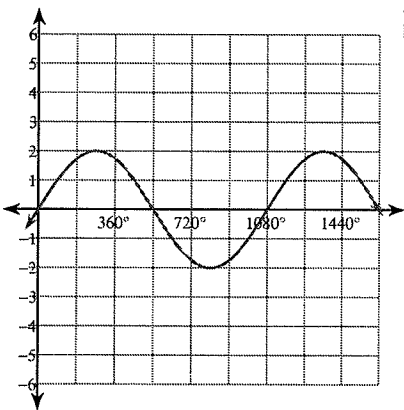
Amplitude: 1
Period: 120°

2) $y = 4\cos 3\theta$



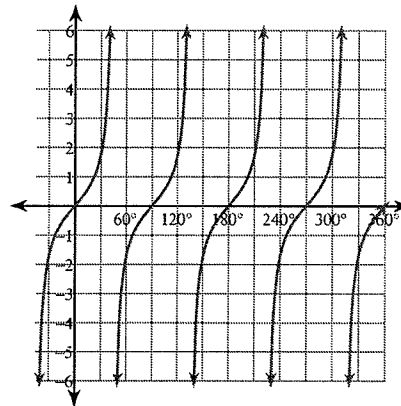
Amplitude: 4
Period: 120°

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



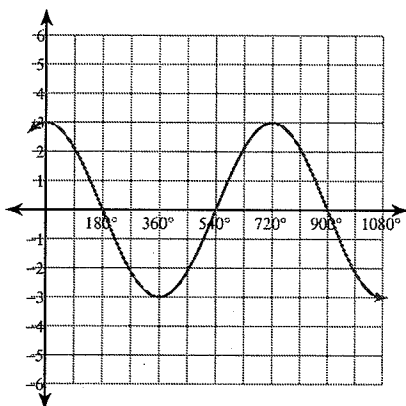
Amplitude: 2
Period: 1080°

4) $y = \tan 2\theta$



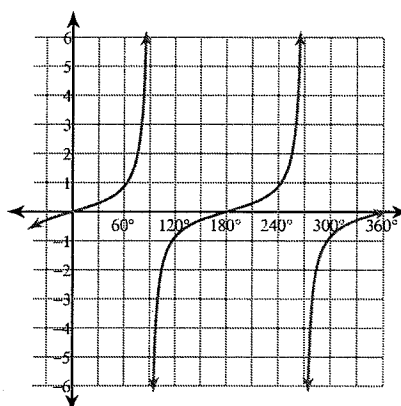
Amplitude: None
Period: 90°

5) $y = 3\cos \frac{\theta}{2}$



Amplitude: 3
Period: 720°

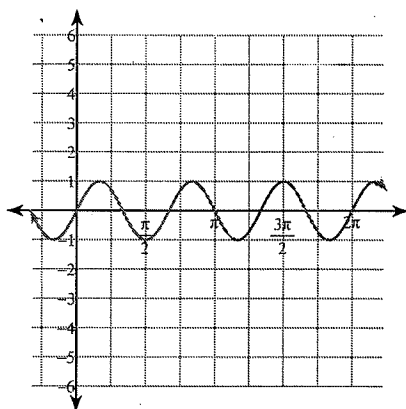
6) $y = \frac{1}{2}\tan \theta$



Amplitude: None
Period: 180°

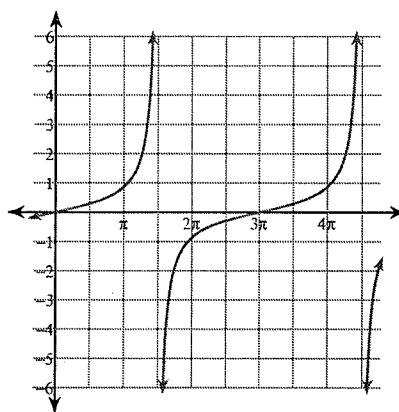
Using radians, find the amplitude and period of each function. Then graph.

7) $y = \sin 3\theta$



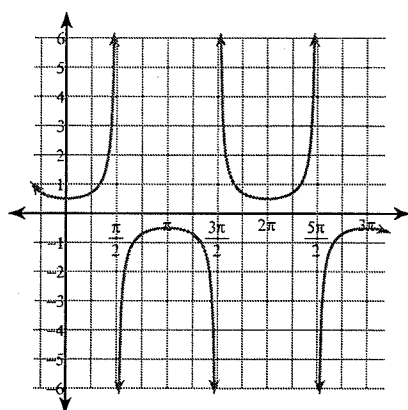
Amplitude: 1
Period: $\frac{2\pi}{3}$

8) $y = \frac{1}{2} \tan \frac{\theta}{3}$



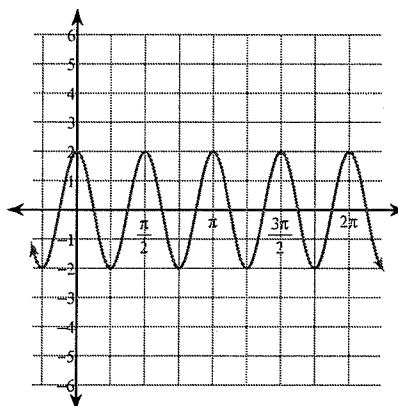
Amplitude: None
Period: 3π

9) $y = \frac{1}{2} \sec \theta$



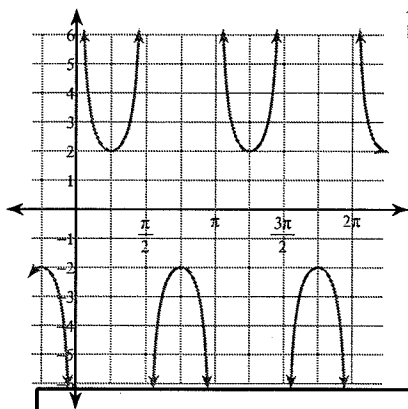
Amplitude: None
Period: 2π

10) $y = 2 \cos 4\theta$



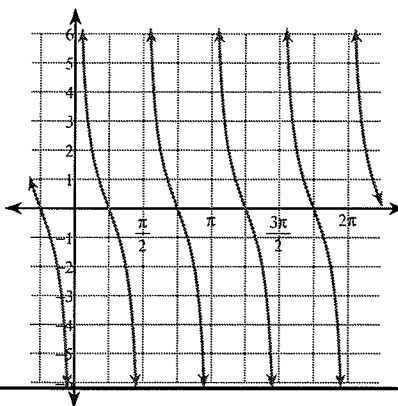
Amplitude: 2
Period: $\frac{\pi}{2}$

11) $y = 2 \csc 2\theta$



Amplitude: None
Period: π

12) $y = 2 \cot 2\theta$



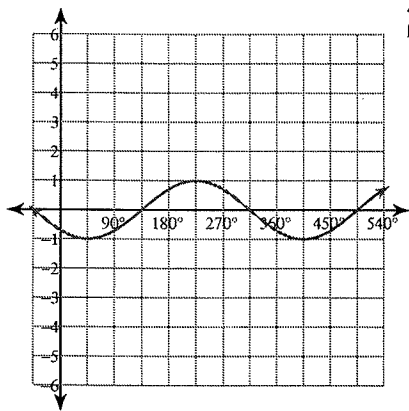
Amplitude: None
Period: $\frac{\pi}{2}$

Create your own worksheets like this one with **Infinite Algebra 2**. Free trial available at [KutaSoftware.com](https://www.KutaSoftware.com)

Translating Graphs of Trig Functions

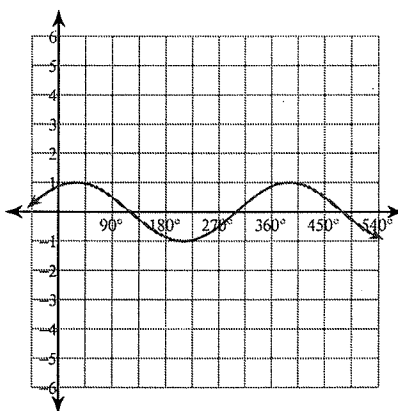
Using degrees, find the amplitude and period of each function. Then graph.

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



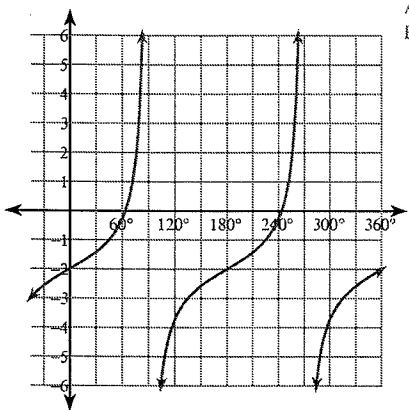
Amplitude: 1
Period: 360°

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



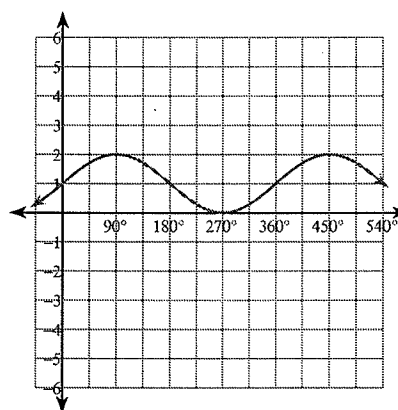
Amplitude: 1
Period: 360°

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



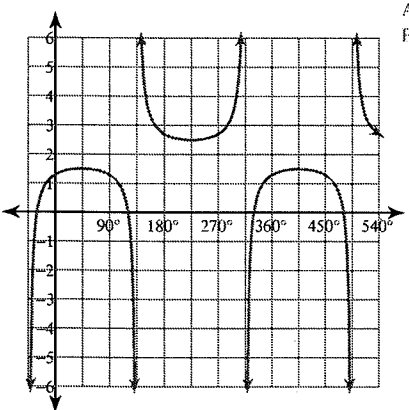
Amplitude: None
Period: 180°

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



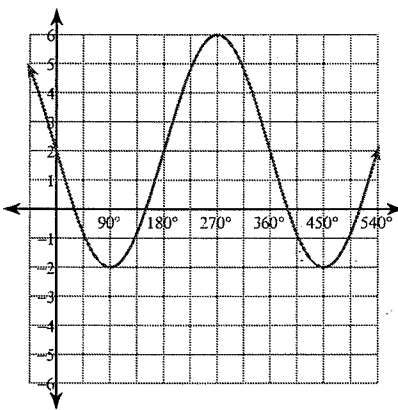
Amplitude: 1
Period: 360°

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



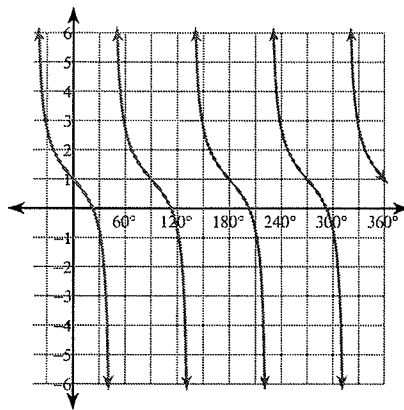
Amplitude: None
Period: 360°

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



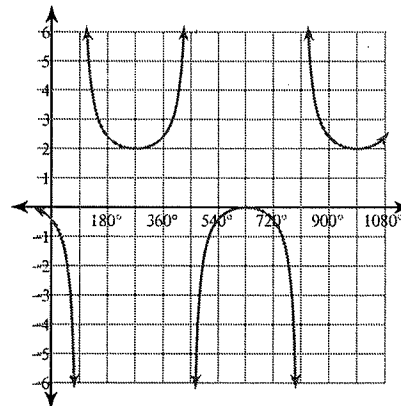
Amplitude: 4
Period: 360°

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



Amplitude: None
Period: 90°

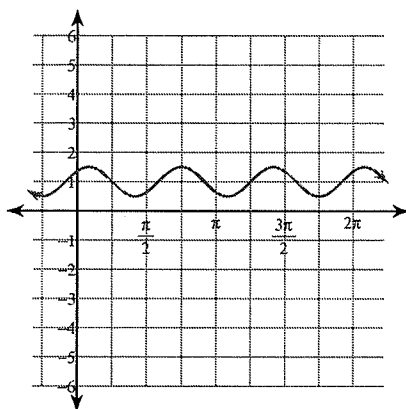
8) $y = 1 + \sec\left(\frac{\theta}{2} - 135\right)$



Amplitude: None
Period: 720°

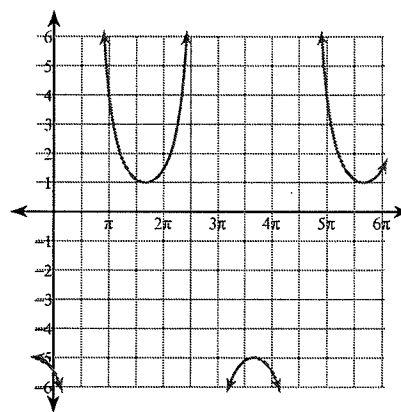
Using radians, find the amplitude and period of each function. Then graph.

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



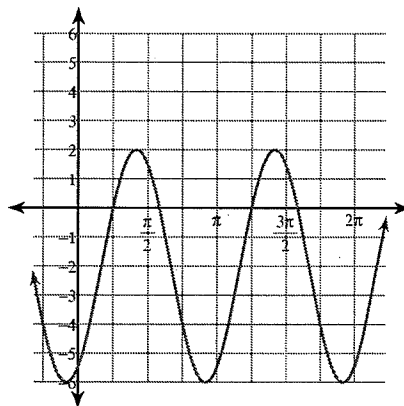
Amplitude: $\frac{1}{2}$
Period: $\frac{2\pi}{3}$

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



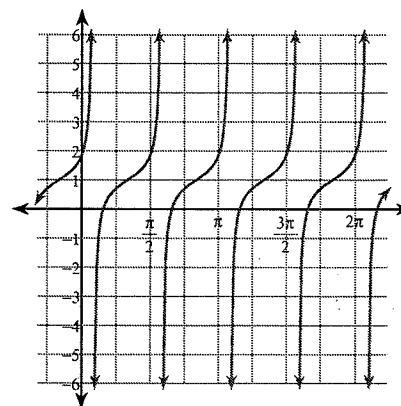
Amplitude: None
Period: 4π

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: $\frac{\pi}{2}$