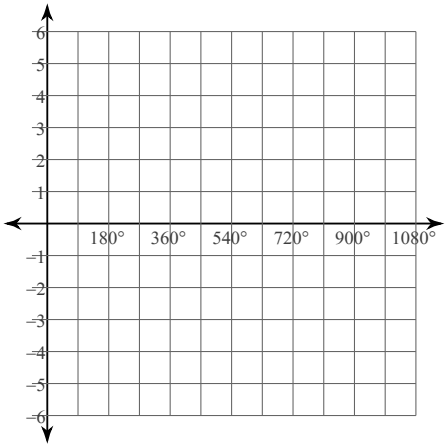
Graphing Trig Functions

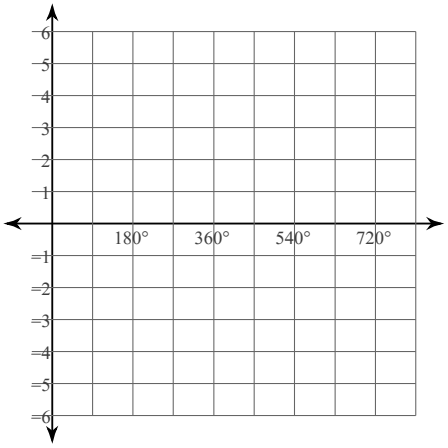
Amplitude, Period, Phase Shift, Vertical Shift 2

Graph each function using degrees.

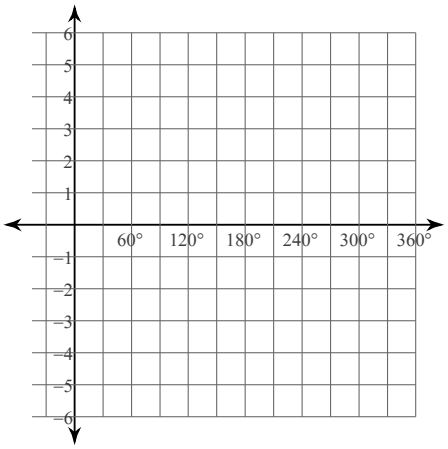
1) $y = -1 + 2\cos\left(\frac{\theta}{2} - 120\right)$



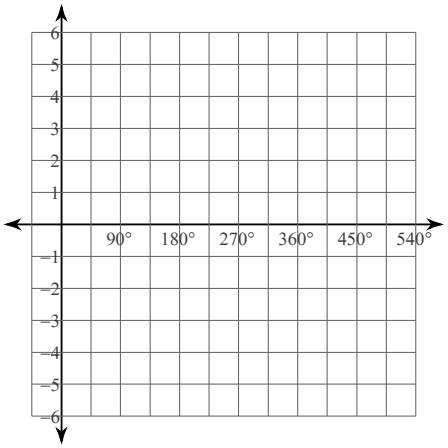
2) $y = 3\tan\left(\frac{\theta}{3} - 60\right) + 2$



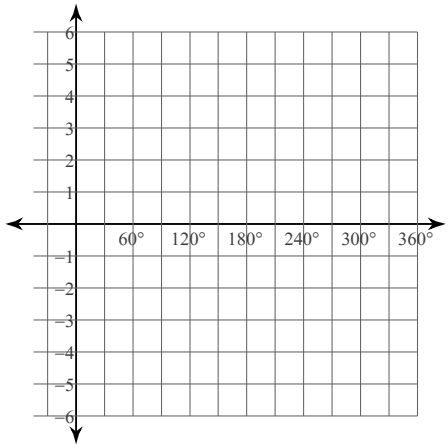
3) $y = 2\cos\left(2\theta + 210\right) - 2$



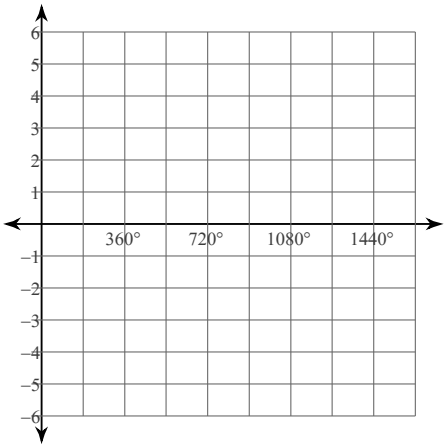
4) $y = 4\tan\left(\frac{\theta}{2} + 30\right) - 2$



5) $y = \frac{1}{2} \cdot \tan\left(2\theta + 120\right) - 2$

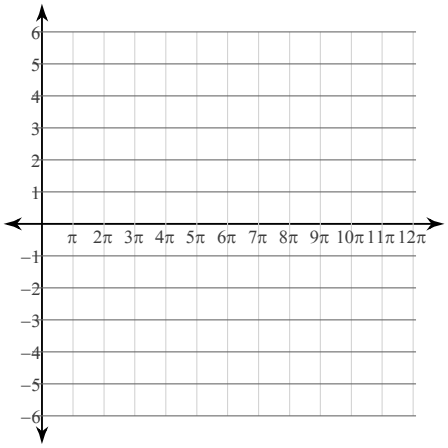


6) $y = 3\sin\left(\frac{\theta}{3} - 45\right) + 1$

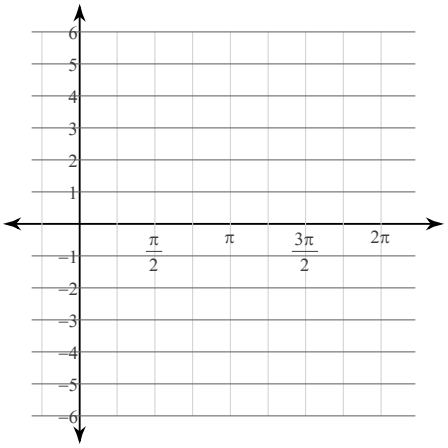


Using radians, find the amplitude and period of each function. Then graph.

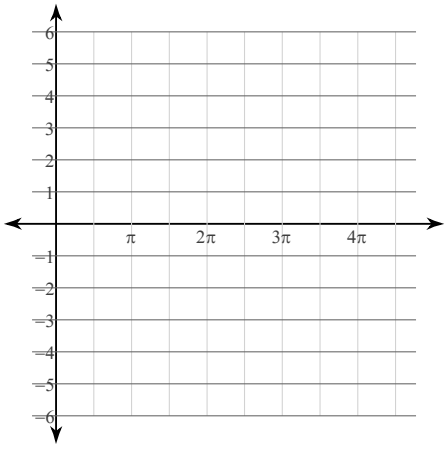
7) $y = 4\sin\left(\frac{\theta}{4} - \frac{\pi}{4}\right) - 2$



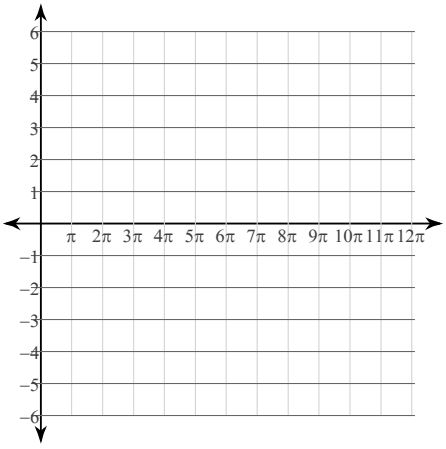
8) $y = -1 + 2\sin\left(3\theta - \frac{7\pi}{6}\right)$



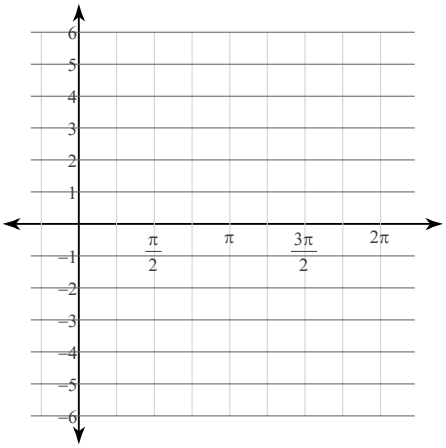
9) $y = \frac{1}{2} \cdot \tan\left(\frac{\theta}{3} - \frac{5\pi}{6}\right)$



10) $y = -2 + \frac{1}{2} \cdot \sin\left(\frac{\theta}{4} + \frac{\pi}{6}\right)$



11) $y = \frac{1}{2} \cdot \cos\left(2\theta + \frac{\pi}{3}\right) + 1$



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