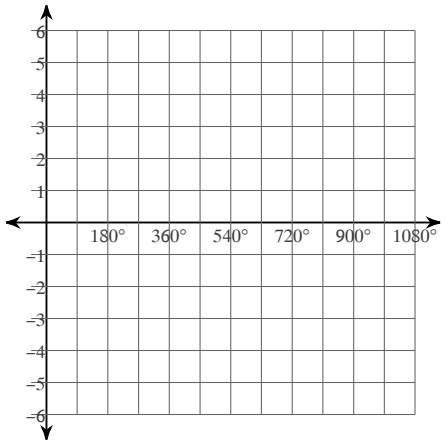
Honors Precalculus Name_____

Unit 2 Review

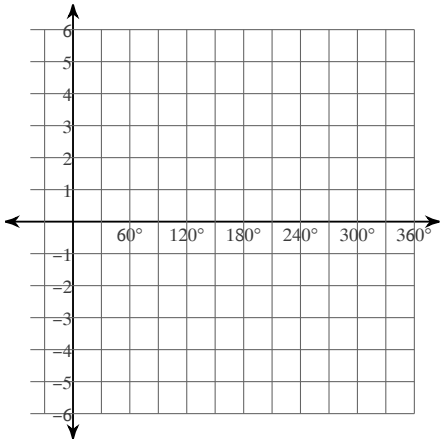
Date_____ Period____

Find the amplitude and the period. Then sketch the graph.

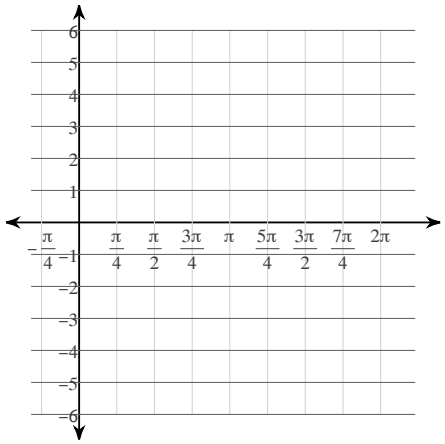
1) $y = 2\sin\frac{\theta}{2}$



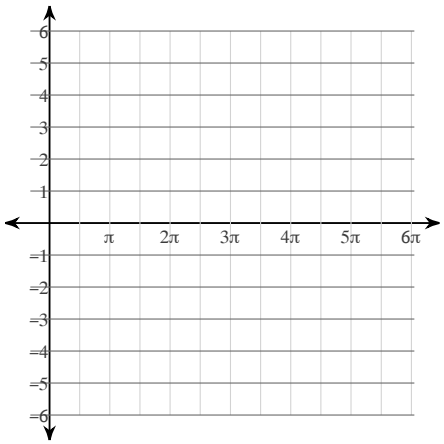
2) $y = \frac{1}{2} \cdot \cos 4\theta$



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

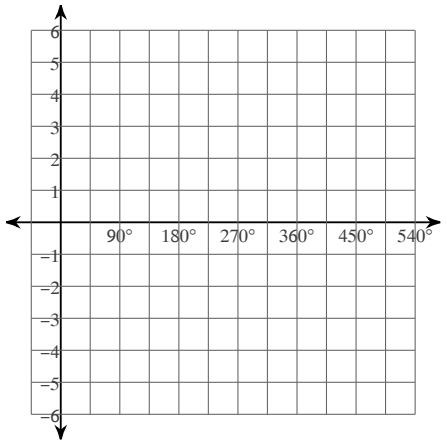


4) $y = 2\sin\frac{\theta}{2}$

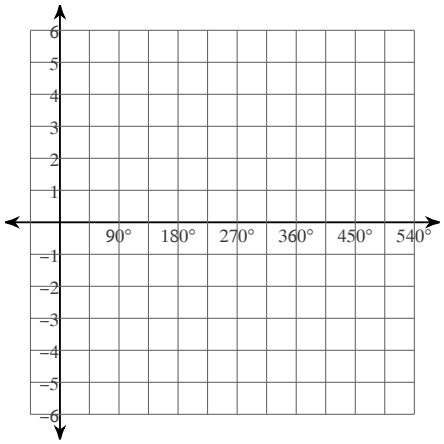


Find the phase shift and the vertical shift. Then sketch the graph.

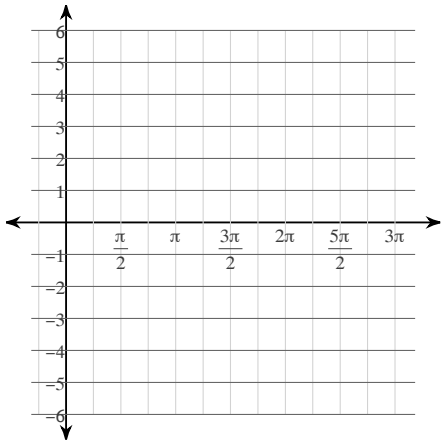
5) $y = \cos(\theta + 45) - 2$



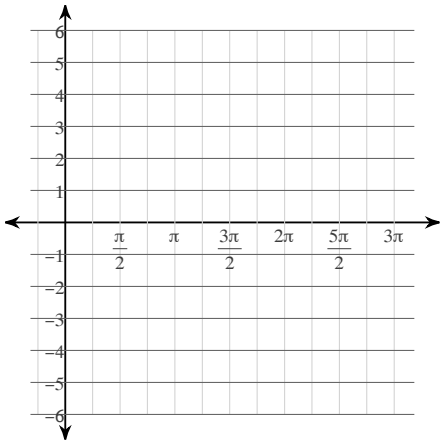
6) $y = \sin(\theta + 120) - 1$



7) $y = \sin\left(\theta - \frac{\pi}{6}\right)$

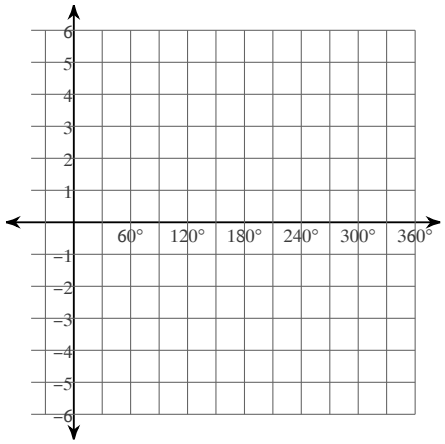


8) $y = \cos\left(\theta + \frac{\pi}{3}\right) - 1$

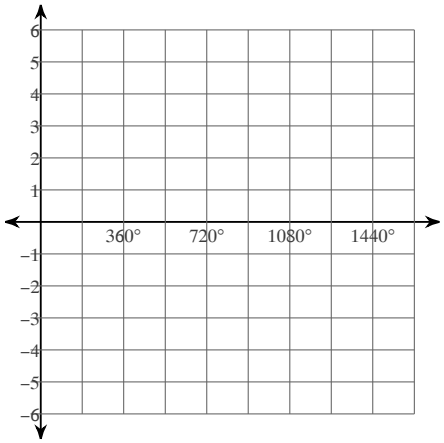


Find the period. Then sketch the graph.

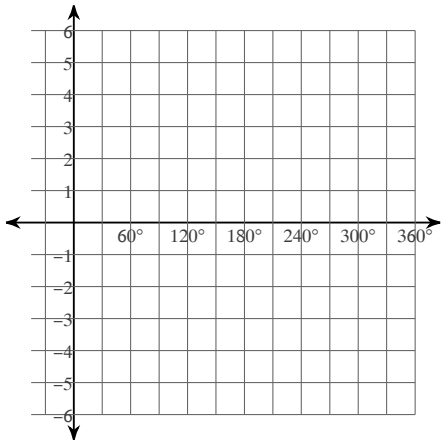
9) $y = 3\csc 2\theta$



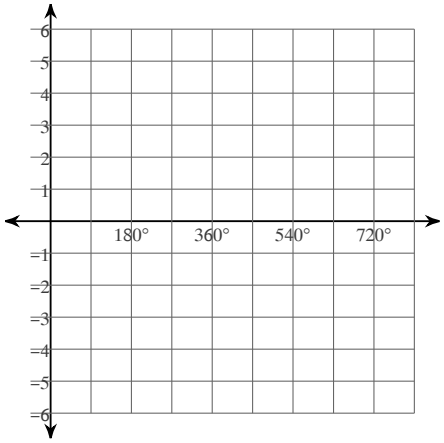
10) $y = \frac{1}{2} \cdot \sec \frac{\theta}{3}$



11) $y = 3\tan 2\theta$

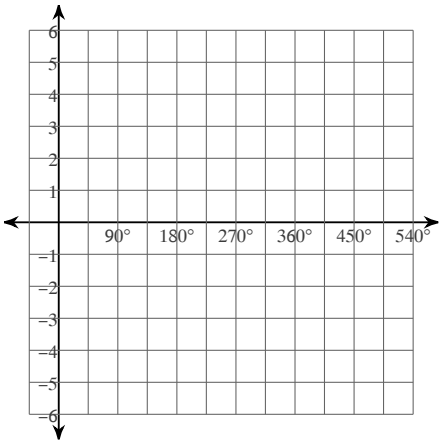


12) $y = \cot \frac{\theta}{3}$

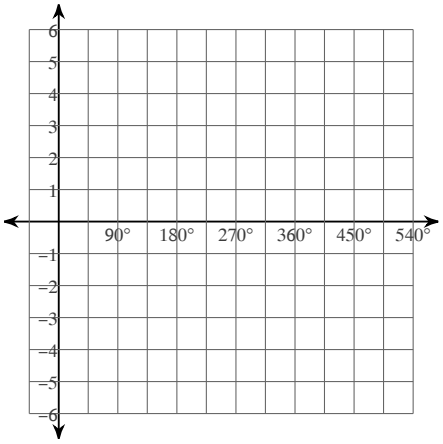


Find the phase shift and the vertical shift. Then sketch the graph.

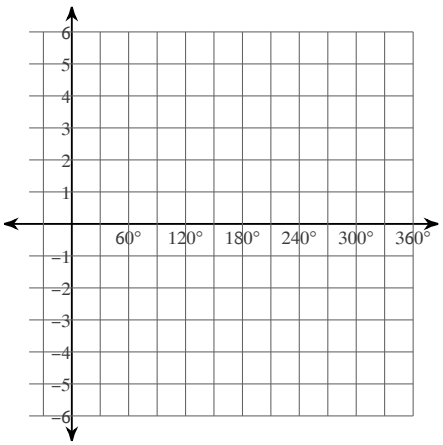
13) $y = \sec(\theta - 150) + 1$



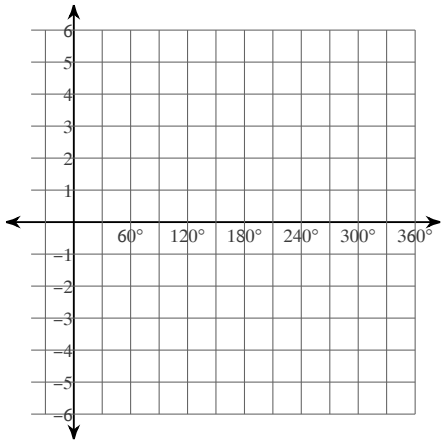
14) $y = \csc(\theta - 60) - 2$



15) $y = 2 + \tan(\theta - 60)$



16) $y = 2 + \cot(\theta + 210)$



Solve each equation for $0 \le \theta < 360$**.**

17) $-\cos\theta = -1$

18) $\sqrt{2} = -2\cos 3\theta$

19) $\frac{3}{2} = 1 + \sin\theta$

20) $-\frac{7}{2} = -3 + \sin 3\theta$

Solve each equation for $0 \le \theta < 2\pi$.

21) $4 + \sin\theta = \dfrac{8 + \sqrt{2}}{2}$

22) $-4\sin -2\theta = 2$

23) $-\dfrac{7}{2} = -3 + \cos\theta$

24) $3\sqrt{3} = 6\cos -4\theta$

Find all solutions to each equation in degrees.

25) $5 + \sin 2\theta = \dfrac{11}{2}$

26) $-\dfrac{2}{5} \cdot \cos -3\theta = \dfrac{\sqrt{2}}{5}$

Find all solutions to each equation in radians.

27) $8\cos -4\theta = -4$

28) $4\sin \frac{\theta}{3} = 2\sqrt{2}$

Solve each equation for $0 \le \theta < 360$**.**

29) $5 + \csc \theta = 3$

30) $\frac{1}{3} \cdot \sec \theta = -\frac{\sqrt{2}}{3}$

31) $\frac{-9 - \sqrt{3}}{3} = -3 + \tan \theta$

32) $-3\cot \theta = -3$