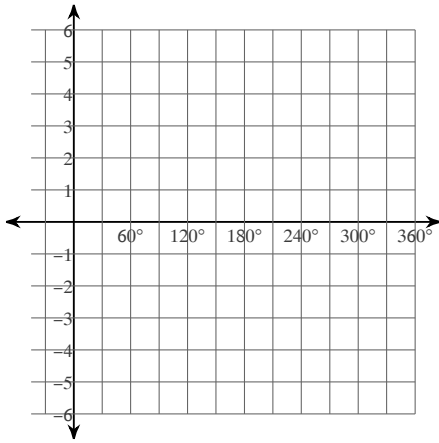


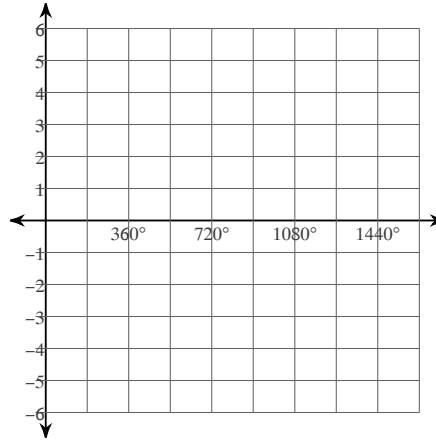
Unit 2 Review

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

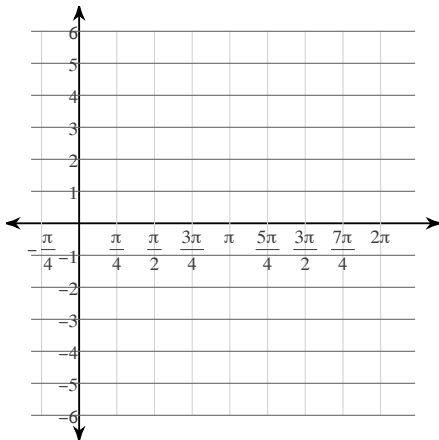
1)  $y = 3\sin 3\theta$



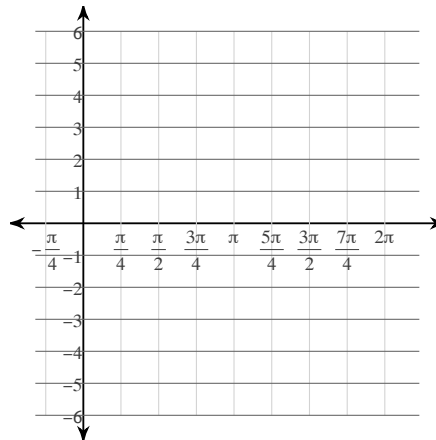
2)  $y = 2\cos \frac{\theta}{3}$



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

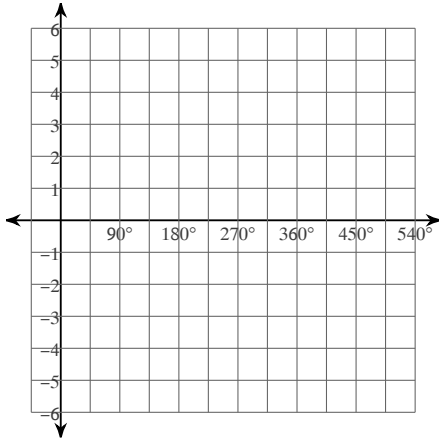


4)  $y = 2\sin 2\theta$

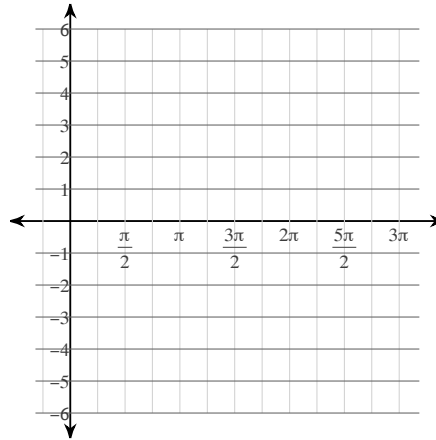


Find the phase shift and the vertical shift. Then sketch the graph.

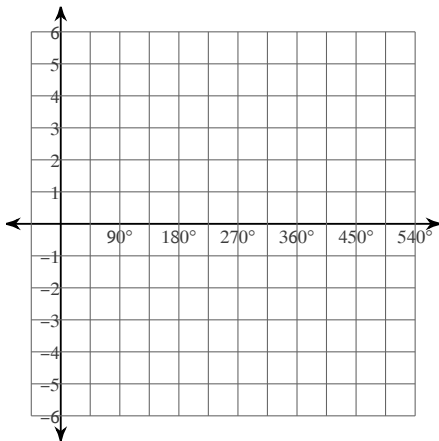
5)  $y = 2 + \cos(\theta + 270^\circ)$



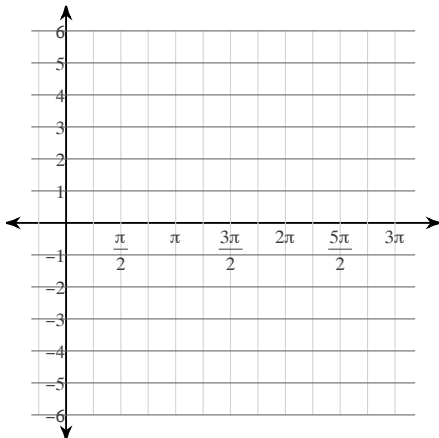
6)  $y = \cos\left(\theta + \frac{\pi}{4}\right) - 2$



7)  $y = -1 + \sin(\theta - 150^\circ)$

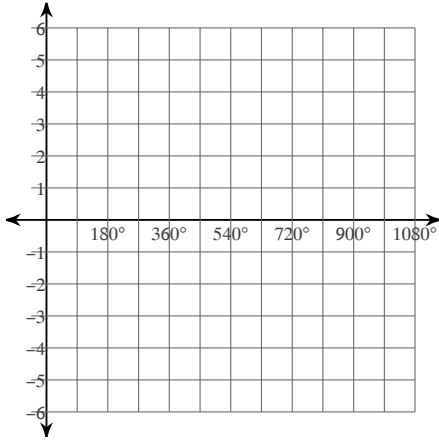


8)  $y = \sin\left(\theta - \frac{2\pi}{3}\right) + 1$

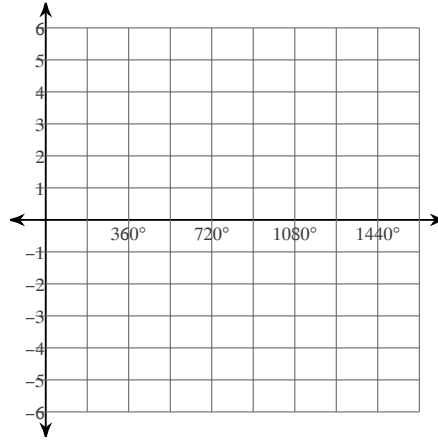


Find the period. Then sketch the graph.

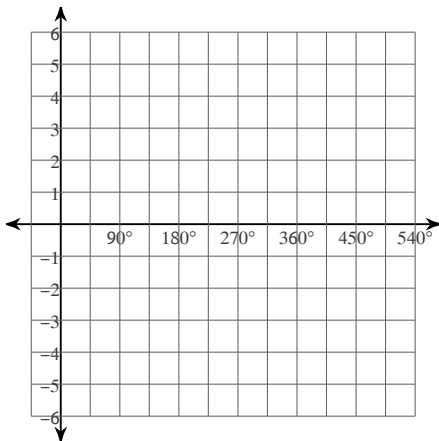
9)  $y = 3\csc \frac{\theta}{2}$



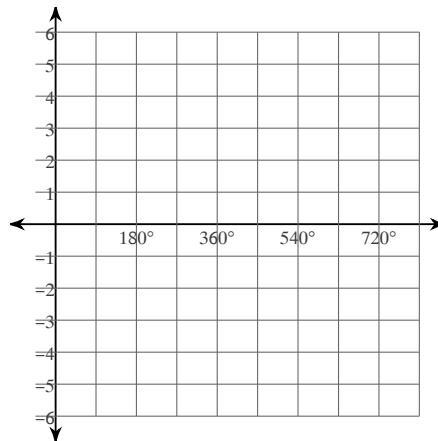
10)  $y = 2\sec \frac{\theta}{3}$



11)  $y = 4\tan \frac{\theta}{2}$

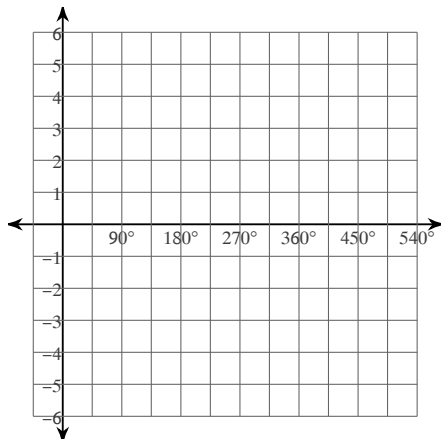


12)  $y = 2\cot \frac{\theta}{3}$

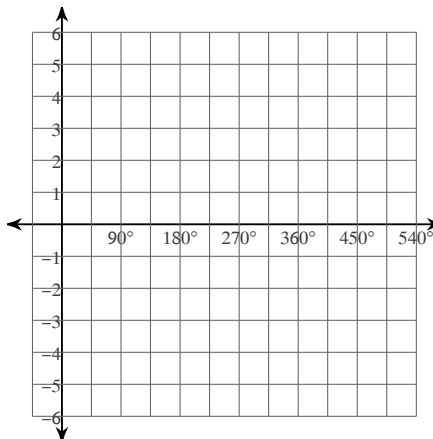


Find the phase shift and the vertical shift. Then sketch the graph.

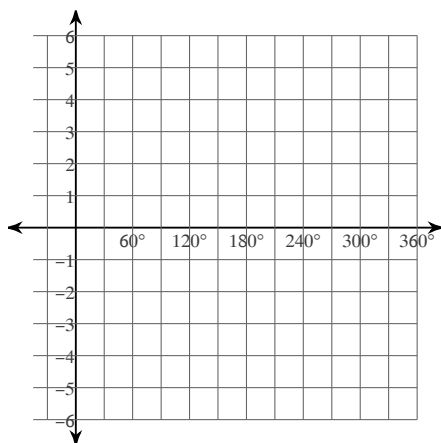
13)  $y = 1 + \sec(\theta + 30)$



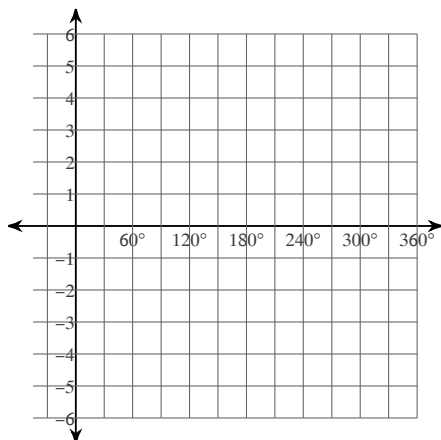
14)  $y = \csc(\theta + 225) - 2$



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



16)  $y = 2 + \cot(\theta - 225)$



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

$$17) -\frac{1}{2} \cdot \cos \theta = -\frac{\sqrt{2}}{4}$$

$$18) 6\cos \frac{\theta}{3} = 3$$

$$19) -\sin \theta = 2$$

$$20) -4\sqrt{2} = -8\sin -3\theta$$

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

$$21) -\frac{7}{2} = -3 + \sin \theta$$

$$22) -5 + \sin 4\theta = -6$$

$$23) -\frac{1}{2} \cdot \cos \theta = -\frac{\sqrt{3}}{4}$$

$$24) -\frac{2}{3} \cdot \cos 2\theta = -\frac{1}{3}$$

**Find all solutions to each equation in degrees.**

$$25) -3\sqrt{2} = 6\sin -3\theta$$

$$26) -4 + \cos \frac{\theta}{4} = -3$$

**Find all solutions to each equation in radians.**

$$27) -\frac{7}{2} = -4 + \cos \frac{\theta}{2}$$

$$28) 5 + \sin -\theta = \frac{10 + \sqrt{2}}{2}$$

Solve each equation for  $0 \leq \theta < 360$ .

$$29) \frac{-9 + 2\sqrt{3}}{3} = -3 + \csc \theta$$

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

$$31) -5 = -4 + \tan \theta$$

$$32) \sqrt{3} = -3\cot \theta$$