Math 3 Name_____

Unit 5.4 Graph Trigonometric Functions (Advanced) PRACTICE

Period____

Find the amplitude, the period in radians, the phase shift in radians, the vertical shift, and the minimum and maximum values.

1) $y = 2 + \frac{1}{9} \cdot \sin\left(\frac{\theta}{6} - \frac{\pi}{2}\right)$

Amp:
Period:
Phase shift:
Vert. Shift:
Min:
Max:

2) $y = \frac{1}{7} \cdot \cos\left(7\theta + \frac{\pi}{6}\right) + 4$

Amp:
Period:
Phase shift:
Vert. Shift:
Min:
Max:

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

Amp:
Period:
Phase shift:
Vert. Shift:
Min:
Max:

4) $y = -4 + 8\cos\left(5\theta + \frac{5\pi}{6}\right)$

Amp:
Period:
Phase shift:
Vert. Shift:
Min:
Max:

5) $y = 5\cos 2\theta + 1$

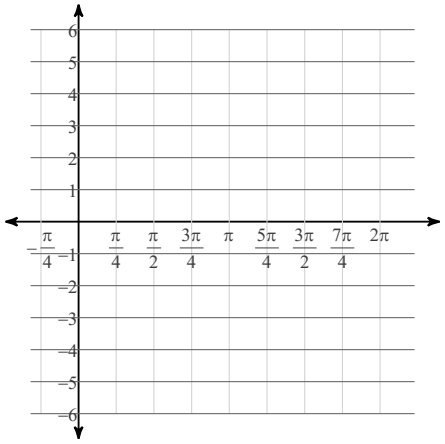
Amp:
Period:
Phase shift:
Vert. Shift:
Min:
Max:

6) $y = 10\cos 5\theta$

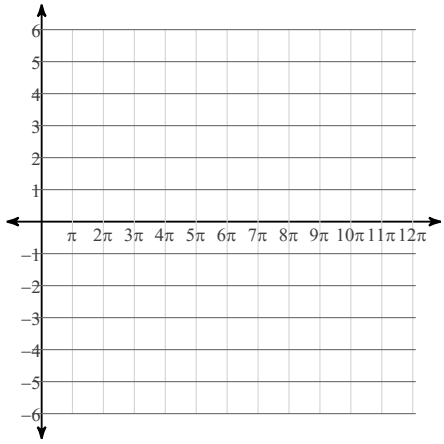
Amp:
Period:
Phase shift:
Vert. Shift:
Min:
Max:

Graph each function using radians.

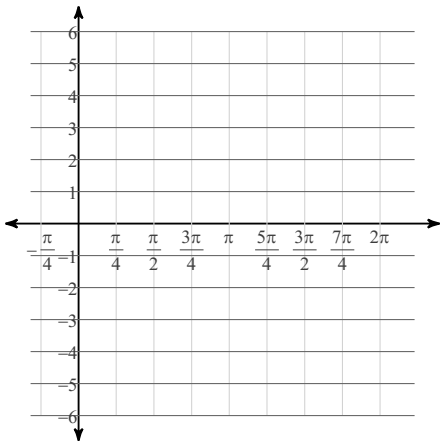
7) $y = 2\sin\left(2\theta + \frac{\pi}{4}\right) - 1$



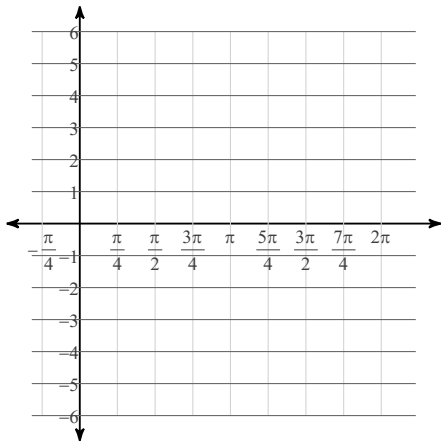
8) $y = \frac{1}{2} \cdot \cos\left(\frac{\theta}{4} + \frac{7\pi}{4}\right) - 2$



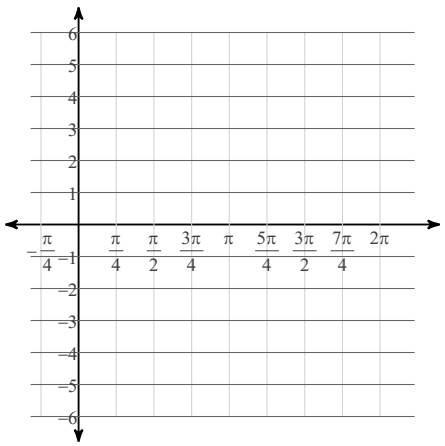
9) $y = 1 + 4\cos\left(4\theta + \frac{\pi}{3}\right)$



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



11) $y = 1 + \sin\left(2\theta + \frac{5\pi}{6}\right)$



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