

**PRACTICE Test 5 Graph Trigonometric Functions**

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

1)  $y = \frac{1}{3} \cdot \cos\left(7\theta + \frac{3\pi}{4}\right) + 2$

Amp:

Period:

Phase shift:

Vert. Shift:

Min:

Max:

2)  $y = 3 + 8\sin\left(7\theta + \frac{4\pi}{3}\right)$

Amp:

Period:

Phase shift:

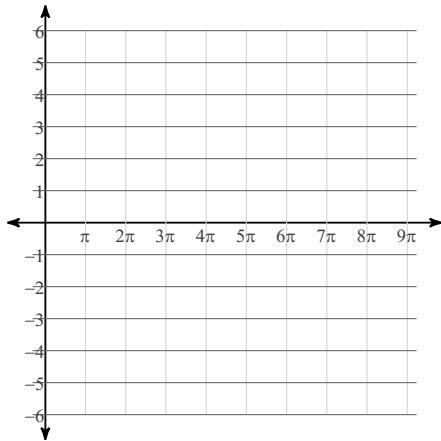
Vert. Shift:

Min:

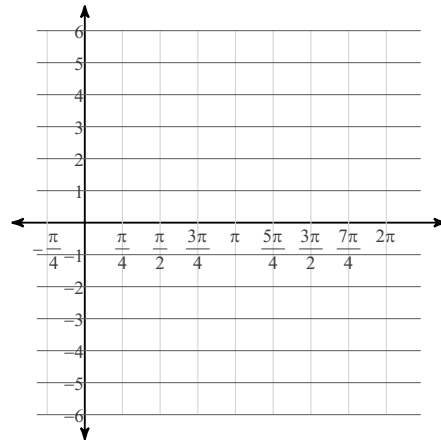
Max:

Graph each function using radians.

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



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



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

$$1) y = \frac{1}{3} \cdot \cos\left(7\theta + \frac{3\pi}{4}\right) + 2$$

Amp:

Period:

Phase shift:

Vert. Shift:

Min:

Max:

$$\text{Amplitude: } \frac{1}{3}$$

$$\text{Period: } \frac{2\pi}{7}$$

$$\text{Phase shift: Left } \frac{3\pi}{28}$$

$$\text{Vert. shift: Up } 2$$

$$\text{Min: } \frac{5}{3}$$

$$\text{Max: } \frac{7}{3}$$

$$2) y = 3 + 8\sin\left(7\theta + \frac{4\pi}{3}\right)$$

Amp:

Period:

Phase shift:

Vert. Shift:

Min:

Max:

$$\text{Amplitude: } 8$$

$$\text{Period: } \frac{2\pi}{7}$$

$$\text{Phase shift: Left } \frac{4\pi}{21}$$

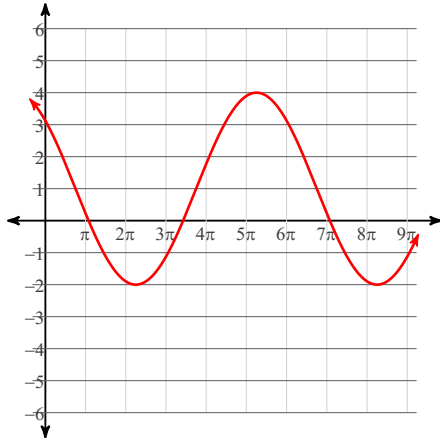
$$\text{Vert. shift: Up } 3$$

$$\text{Min: } -5$$

$$\text{Max: } 11$$

Graph each function using radians.

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



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

