

Graph the following equations. State the domain, range, amplitude, period, phase shift, and vertical shift of each.

1. $y = 2 \sin 3x - 1$

GRAPH

Domain:
Range:
Amplitude:
Period:
Phase Shift:
Vertical Shift:

2. $y = -5 \cos \frac{1}{3}(\theta + 270)$

GRAPH

Domain:
Range:
Amplitude:
Period:
Phase Shift:
Vertical Shift:

3. $y = \cos(x - \pi) + 4$

GRAPH

Domain:
Range:
Amplitude:
Period:
Phase Shift:
Vertical Shift:

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

GRAPH

Domain:

Range:

Amplitude:

Period:

Phase Shift:

Vertical Shift:

5. $y = -2\sin 3(\theta + 20) + 4$

GRAPH

Domain:

Range:

Amplitude:

Period:

Phase Shift:

Vertical Shift:

6. $y = \tan(3\theta - 180) + 2$

GRAPH

Domain:

Range:

Amplitude:

Period:

Phase Shift:

Vertical Shift:

7. Write an equation of a cosine function with amplitude $=\frac{1}{2}$, period $=4\pi$, phase shift $=-\frac{\pi}{2}$, vertical shift $=5$.

8. Write an equation of a sine function with amplitude $=3$, period $=1080^\circ$, phase shift $=20^\circ$, vertical shift $=-2$

Identify the domain, range, amplitude, period, phase shift, and write an equation for each graph.

9.

Domain:

Range:

Amplitude:

Period:

Phase Shift:

Vertical Shift:

Equation:

