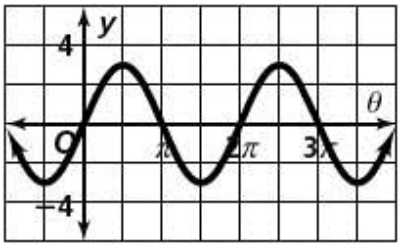
Name _____ Hour _____

U6 – Periodic Functions

How many cycles does each sine function have in the interval from 0 to 2π? Find the amplitude, period and y-displacement of each function.

1.



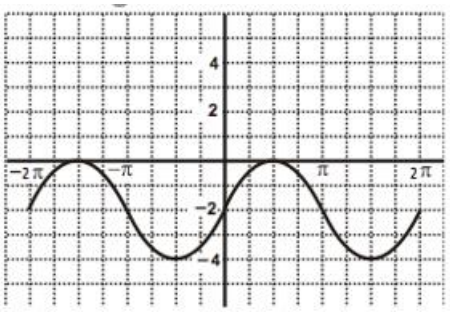
# of cycles: _____

Amplitude: _____

Period: _____

y-displ.: _____

2.



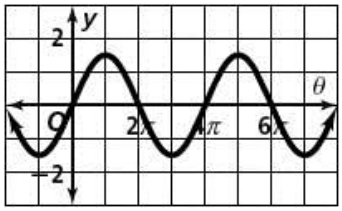
# of cycles: _____

Amplitude: _____

Period: _____

y-displ.:_____

3.



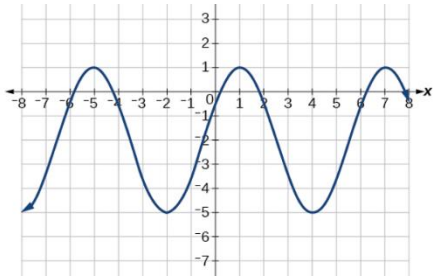
# of cycles: _____

Amplitude: _____

Period: _____

y-displ.: _____

4.



# of cycles: _____

Amplitude: _____

Period: _____

y-displ.:_____

Name _____ Hour _____

Find the amplitude, period and y-displacement of each periodic function.

5. $y = \sin 4x$

Amplitude: _____

Period: _____

y-displ.: _____

6. $y = 5\cos 8x - 3$

Amplitude: _____

Period: _____

y-displ.:_____

7. $y = \cos 2x + 5$

Amplitude: _____

Period: _____

y-displ.: _____

8. $y = 3\sin \frac{1}{4}x$

Amplitude: _____

Period: _____

y-displ.:_____

Write a sine function for each description.

9. amplitude = $\frac{1}{2}$, period = 2π, y-displ. = -2

10. amplitude = 2, period = $\frac{\pi}{4}$

Write a cosine function for each description.

11. amplitude = $\frac{1}{4}$, period = π

12. amplitude = 3, period = $\frac{\pi}{2}$, y-displ. = 4