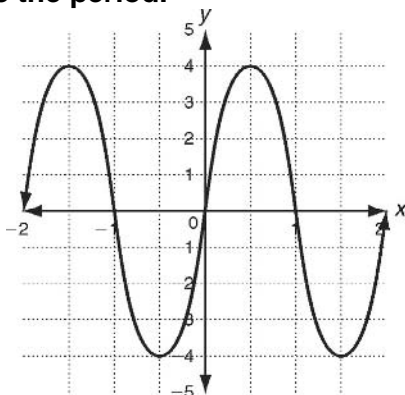


LESSON
11-1

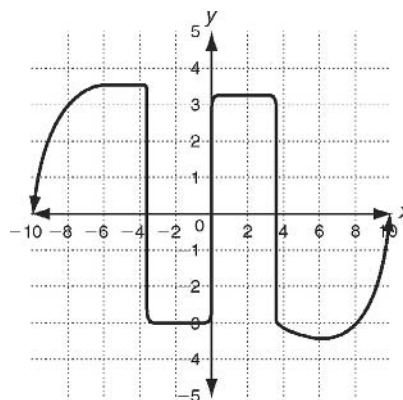
Practice A
Graphs of Sine and Cosine

Identify whether each function is periodic. If the function is periodic, give the period.

1.



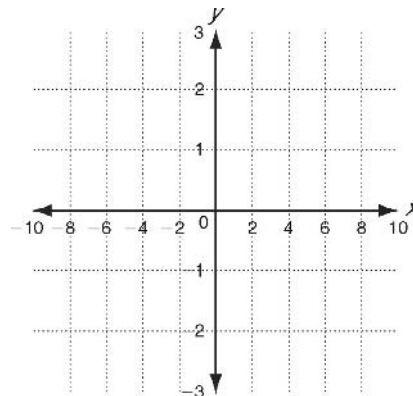
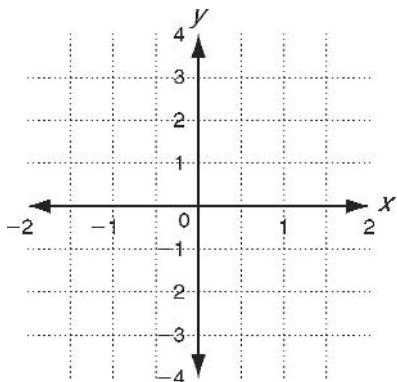
2.



Use $f(x) = \sin x$ or $g(x) = \cos x$ as a guide. Identify the amplitude and period. Then graph each function.

3. $h(x) = -3\sin 4x$

4. $p(x) = 2\cos(0.5x)$



Use $f(x) = \cos x$ as a guide. Graph the function.

5. $g(x) = \cos(x - \pi)$

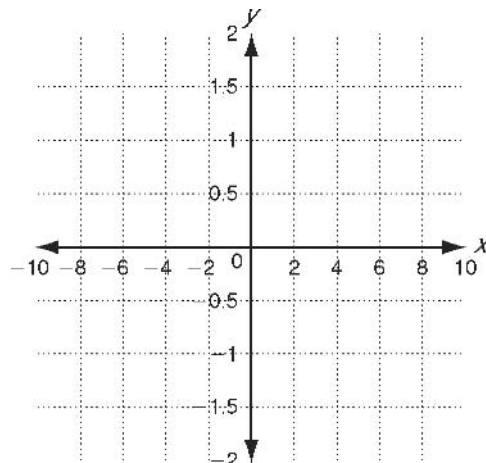
a. Identify the amplitude and period.

b. Identify the phase shift.

c. Identify the x-intercepts.

d. Identify the maximum and minimum values.

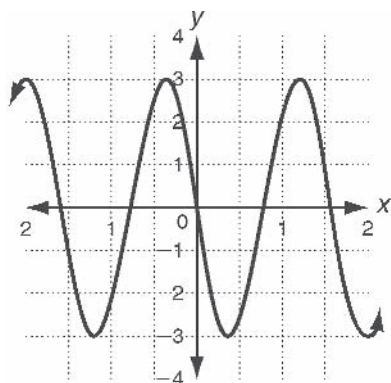
e. Use the information to graph the function.



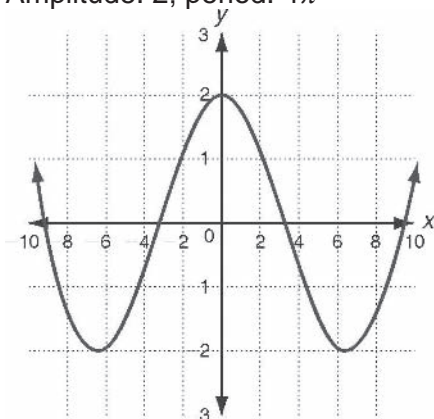
11-1 GRAPHS OF SINE AND COSINE

Practice A

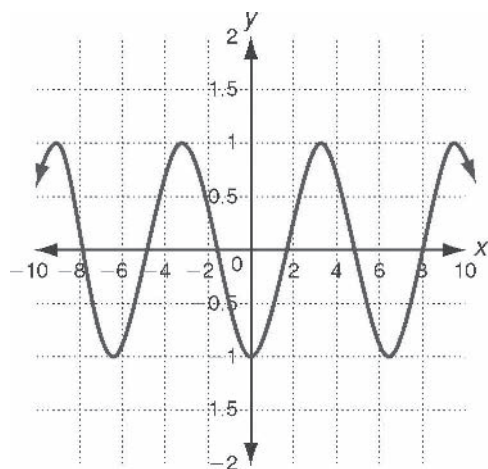
1. Periodic; 2
2. Not periodic
3. Amplitude: 3; period: $\frac{\pi}{2}$



4. Amplitude: 2; period: 4π

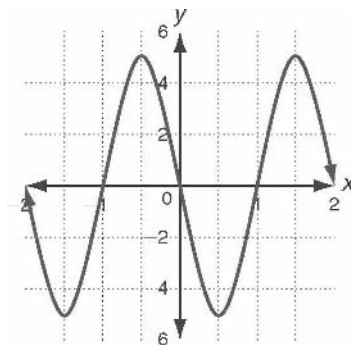


- a. Amplitude: 1; period: 2π
- b. π radians to the right
- c. $\frac{\pi}{2} + n\pi$, where n is an integer
- d. 1, -1
- e.

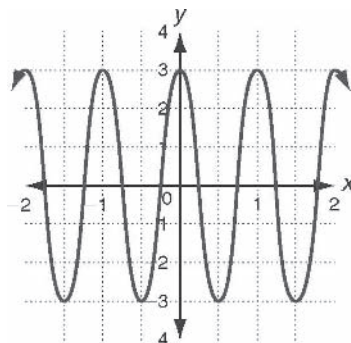


Practice B

1. Amplitude: 5; period: 2



2. Amplitude: 3; period: 1



3. x-intercepts: $\frac{3\pi}{4}, \frac{7\pi}{4}$; phase shift: $\frac{\pi}{4}$
radians to the left

