6-3

NAME _____ DATE _____ PERIOD _____

Practice

Graphing Sine and Cosine Functions

Find each value by referring to the graph of the sine or the cosine function.

1. $\cos \pi$

−1

2. $\sin \frac{3\pi}{2}$

−1

3. $\sin\left(-\frac{7\pi}{2}\right)$

1

Find the values of θ for which each equation is true.

4. $\sin \theta = 0$

πn, where n is any integer

5. $\cos \theta = 1$

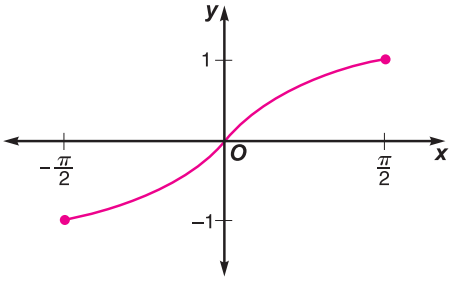
πn, where n is an even integer

6. $\cos \theta = -1$

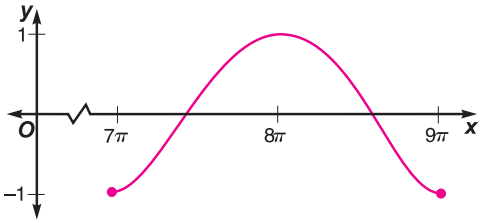
πn, where n is an odd integer

Graph each function for the given interval.

7. $y = \sin x; -\frac{\pi}{2} \le x \le \frac{\pi}{2}$

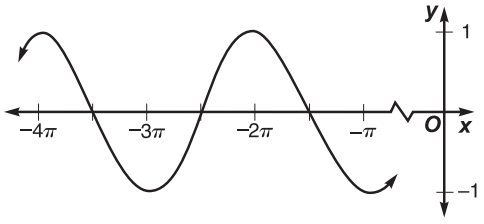


8. $y = \cos x; 7\pi \le x \le 9\pi$



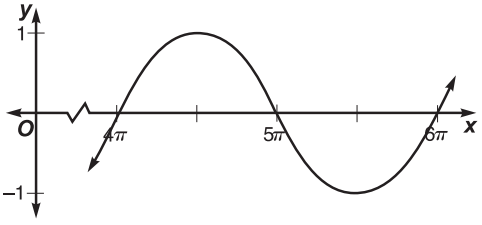
Determine whether each graph is y = sin x, y = cos x, or neither.

9.



y = cos x

10.



y = sin x

11. ***Meteorology*** The equation $y = 70.5 + 19.5 \sin\left[\frac{\pi}{6}(t - 4)\right]$ models the average monthly temperature for Phoenix, Arizona, in degrees Fahrenheit. In this equation, t denotes the number of months, with $t = 1$ representing January. What is the average monthly temperature for July? **90°F**

6-3

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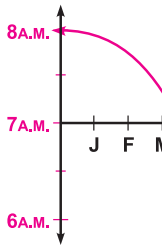

State whet

3.

yes; 8

5.

yes; 4

7. A studen
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