SECONDARY MATH III
TRIG UNIT
SINE AND COSINE GRAPHS

NAME_____
DATE_____
CLASS_____

Graphing Sine and Cosine Functions

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

1. $\cos \pi$

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

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

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

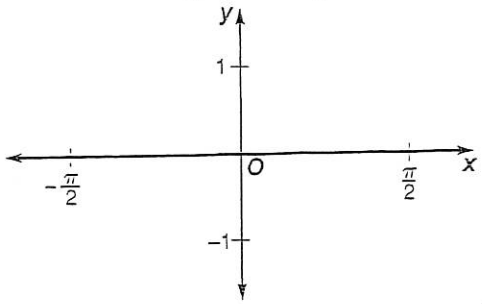
4. $\sin \theta = 0$

5. $\cos \theta = 1$

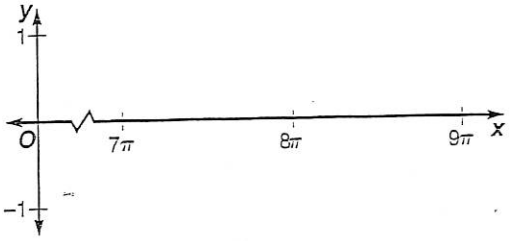
6. $\cos \theta = -1$

Graph each function for the given interval.

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

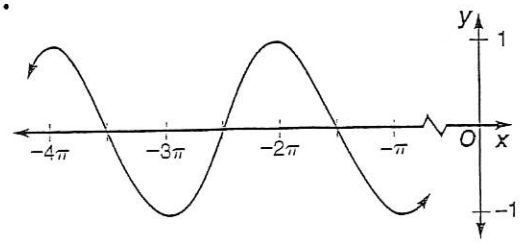


8. $y = \cos x; 7\pi \leq x \leq 9\pi$

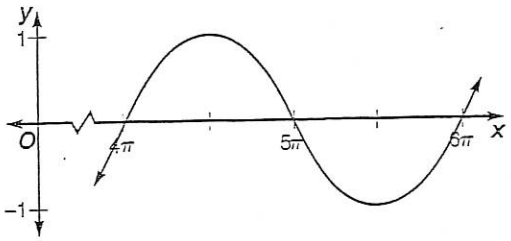


Determine whether each graph is y = sin x, y = cos x, or neither.

9.



10.



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?