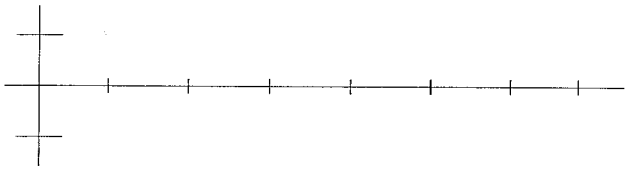
Sine and Cosine Homework

Name_____ Period_____

Graph y = sin x



Graph y = cos x

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

1. $\cos 8\pi$

2. $\sin 11\pi$

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

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

5. $\sin \frac{7\pi}{2}$

6. $\cos -3\pi$

7. What is the value of $\sin \pi + \cos \pi$?

8. Find the value of $\sin 2\pi - \cos 2\pi$?

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

9. $\cos \theta = -1$

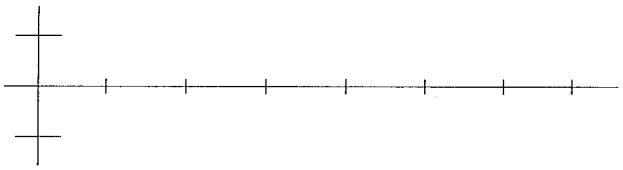
10. $\sin \theta = 1$

11. $\cos \theta = 0$

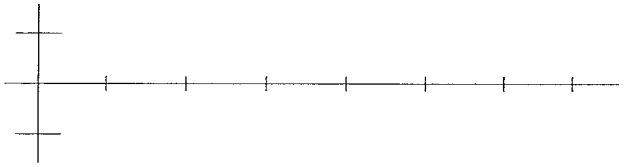
12. Under what conditions does $\cos \theta = 1$?

Graph each function for the given interval.

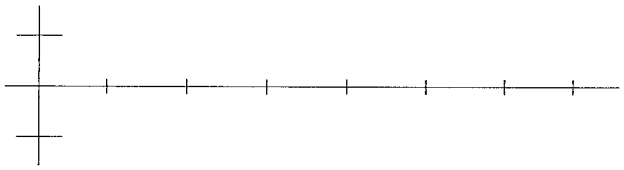
13. $y = \sin x, \ -5\pi \leq x \leq -3\pi$



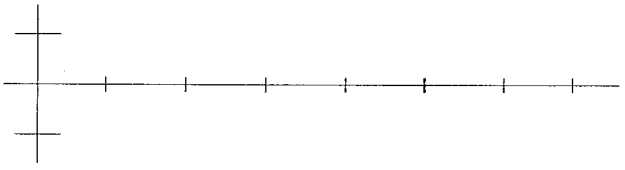
14. $y = \cos x, \ 8\pi \leq x \leq 10\pi$



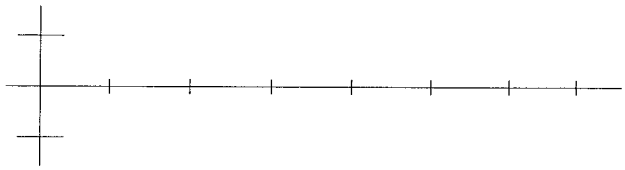
15. $y = \cos x, \ -5\pi \leq x \leq -3\pi$



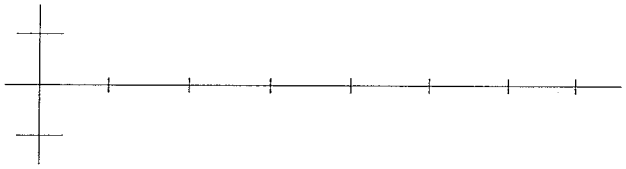
16. $y = \sin x, \ \frac{9\pi}{2} \leq x \leq \frac{13\pi}{2}$



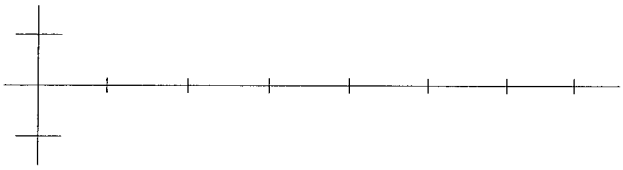
17. $y = \cos x, \ \frac{-7\pi}{2} \le x \le \frac{-3\pi}{2}$



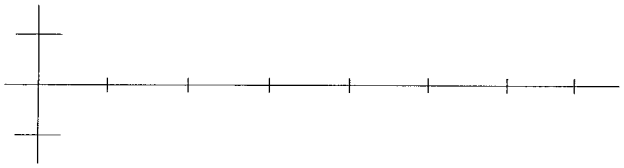
18. $y = \sin x, \ \frac{7\pi}{2} \le x \le \frac{11\pi}{2}$



19. $y = \sin x, \ -4\pi \le x \le -2\pi$



20. $y = \cos x, \ 5\pi \le x \le 7\pi$



21. Name any lines of symmetry for the graph of y = sin x.

22. Name any lines of symmetry for the graph of y = cos x.

23. Describe what it means for a function to be periodic.

24. State the domain and range of the sine and cosine functions.

25. Determine whether the graph represents y = sin x or y= cos x or neither. Explain.