7–16 ■ Find the value of the trigonometric function. If possible, give the exact value; otherwise, use a calculator to find an approximate value correct to five decimal places.

7. (a) $\sin \dfrac{3\pi}{4}$ (b) $\cos \dfrac{3\pi}{4}$

8. (a) $\tan \dfrac{\pi}{3}$ (b) $\tan\left(-\dfrac{\pi}{3}\right)$

9. (a) $\sin 1.1$ (b) $\cos 1.1$

10. (a) $\cos \dfrac{\pi}{5}$ (b) $\cos\left(-\dfrac{\pi}{5}\right)$

11. (a) $\cos \dfrac{9\pi}{2}$ (b) $\sec \dfrac{9\pi}{2}$

12. (a) $\sin \dfrac{\pi}{7}$ (b) $\csc \dfrac{\pi}{7}$

13. (a) $\tan \dfrac{5\pi}{2}$ (b) $\cot \dfrac{5\pi}{2}$

14. (a) $\sin 2\pi$ (b) $\csc 2\pi$

15. (a) $\tan \dfrac{\pi}{8}$ (b) $\cot \dfrac{\pi}{8}$

16. (a) $\cos \dfrac{\pi}{3}$ (b) $\sin \dfrac{\pi}{6}$

29–36 ■ (a) Find the amplitude, period, and phase shift of the function, and (b) sketch the graph.

29. $y = 10 \cos \frac{1}{2}x$ 30. $y = 4 \sin 2\pi x$

31. $y = -\sin \frac{1}{2}x$ 32. $y = 2 \sin\left(x - \dfrac{\pi}{4}\right)$
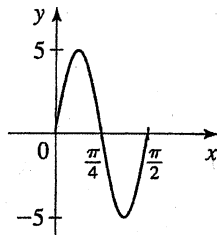
33. $y = 3 \sin(2x - 2)$ 34. $y = \cos 2\left(x - \dfrac{\pi}{2}\right)$

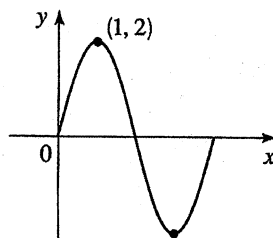35. $y = -\cos\left(\dfrac{\pi}{2}x + \dfrac{\pi}{6}\right)$ 36. $y = 10 \sin\left(2x - \dfrac{\pi}{2}\right)$

37–40 ■ The graph of one period of a function of the form $y = a \sin k(x - b)$ or $y = a \cos k(x - b)$ is shown. Determine the function.
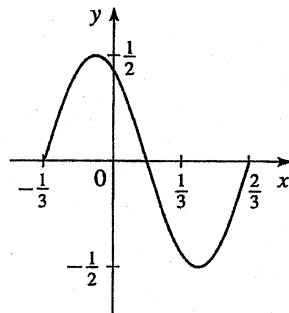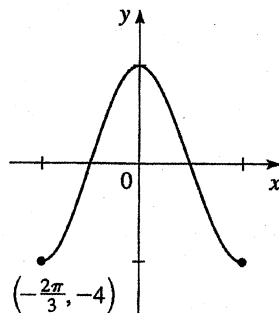
37.

38.

39.

40.

41–48 ■ Find the period, and sketch the graph.

41. $y = 3 \tan x$ 42. $y = \tan \pi x$

43. $y = 2 \cot\left(x - \dfrac{\pi}{2}\right)$ 44. $y = \sec\left(\dfrac{1}{2}x - \dfrac{\pi}{2}\right)$

45. $y = 4 \csc(2x - \pi)$ 46. $y = \tan\left(x + \dfrac{\pi}{6}\right)$

47. $y = \tan\left(\dfrac{1}{2}x - \dfrac{\pi}{8}\right)$ 48. $y = -4 \sec 4\pi x$