

Find the exact value of each

① $\sec\left(\frac{3\pi}{4}\right)$

② $\csc\left(\frac{11\pi}{6}\right)$

③ $\tan\left(\frac{28\pi}{3}\right)$

④ $\sin\left(\frac{19\pi}{2}\right)$

⑤ $\cos\left(\frac{7\pi}{4}\right)$

⑥ $\cot\left(\frac{11\pi}{4}\right)$

⑦ $\sin\left(\frac{4\pi}{3}\right)$

⑧ $\tan\left(-\frac{5\pi}{6}\right)$

⑨ $\sec\left(-\frac{9\pi}{4}\right)$

⑩ $\csc\left(-\frac{17\pi}{2}\right)$

$$(11) \quad \tan^{-1}(-1) + \tan\left(\frac{\pi}{4}\right)$$

$$(12) \quad \sec^{-1}(2) - \sin\left(\frac{\pi}{6}\right)$$

$$(13) \quad \sin^{-1}\left(-\frac{\sqrt{3}}{2}\right) + \tan(\pi)$$

$$(14) \quad \csc^{-1}(1) + \cot\left(\frac{3\pi}{4}\right)$$

$$(15) \quad \cos^{-1}\left(-\frac{\sqrt{3}}{2}\right) - \cos\left(\frac{\pi}{6}\right)$$

$$(16) \quad \sin\left(\arccos\left(\frac{2}{3}\right)\right)$$

$$(17) \quad \tan\left(\sin^{-1}\left(\frac{5}{9}\right)\right)$$

$$(18) \quad \sec\left(\csc^{-1}(4)\right)$$

$$(19) \quad \cos\left(\arctan\left(\frac{15}{8}\right)\right)$$

$$(20) \quad \cot\left(\sin^{-1}\left(\frac{2}{5}\right)\right)$$

Solve for x :

$$(21) \quad \sin x - 1 = 0$$

$$(22) \quad \tan x - 1 = 0$$

$$(23) \quad 2\cos x + 1 = 0$$

$$(24) \quad \sec x - 2 = 0$$

$$(25) \quad 4\cos^2 x - 1 = 0$$

$$(26) \quad \cos(3x) = \frac{\sqrt{3}}{2}, \text{ if } 0 \leq x < 2\pi$$

$$(27) \quad \tan(2x) = -1, \text{ if } 0 \leq x < 2\pi$$

$$(28) \quad \sin(3x) = \frac{\sqrt{3}}{2}, \text{ if } 0 \leq x < 2\pi$$

$$(29) \quad \sec(2x) = 1, \text{ if } 0 \leq x < 2\pi$$

$$(30) \quad \tan(3x) = \frac{1}{\sqrt{3}}, \text{ if } 0 \leq x < 2\pi$$

Graph one cycle on a scaled set of axes

31

$$y = 4 \sin(2x)$$

32

$$y = 3 \cos(5x)$$

33

$$y = -2 \sin\left(\frac{1}{2}x\right)$$

34

$$y = -10 \cos(20x)$$

35

$$y = 40 \cos(6\pi x)$$

36

$$y = -8 \sin\left(\frac{\pi}{10}x\right)$$

37

$$y = -\frac{1}{2} \cos\left(\frac{\pi}{8}x\right)$$

38

$$y = 100 \sin(200x)$$

39

$$y = -6 \sin(10\pi x)$$

40

$$y = 40 \cos(16x)$$

$$(41) \quad y = 2 + 3\sin\left(x + \frac{\pi}{4}\right)$$

$$(42) \quad y = 4 + 2\cos\left(x - \frac{\pi}{6}\right)$$

$$(43) \quad y = 5 - 4\sin\left(x + \frac{\pi}{12}\right)$$

$$(44) \quad y = 3 - 6\cos 4\left(x - \frac{\pi}{10}\right)$$

$$(45) \quad y = -4 + 7\sin \frac{\pi}{6}(x - 2)$$

$$(46) \quad y = 5 - 2\cos(4x - \pi)$$

$$(47) \quad y = 3 + 2\sin\left(3x + \frac{\pi}{4}\right)$$

$$(48) \quad y = -2 + \frac{1}{2}\cos\left(\frac{\pi}{2}x - 3\pi\right)$$

$$(49) \quad y = 1 - \sin\left(\pi x - \frac{\pi}{2}\right)$$

$$(50) \quad y = -10 + 4\cos\left(2x + \frac{\pi}{3}\right)$$