

## Angles in Standard Position

Block: \_\_\_\_ Mark Out Of 40 \_\_\_\_

**Convert each degree measure into radians.**

1)  $50^\circ$

2)  $-30^\circ$

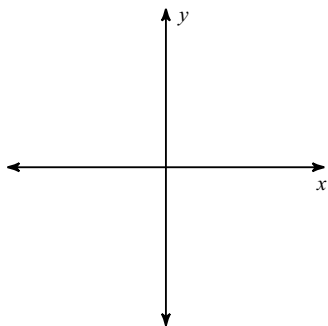
**Convert each radian measure into degrees.**

3)  $\frac{7\pi}{6}$

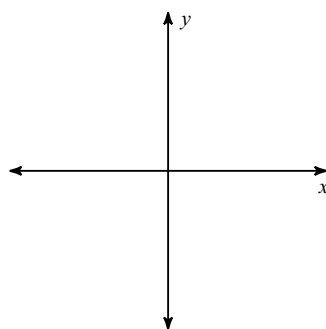
4)  $\frac{49\pi}{12}$

**Draw an angle with the given measure in standard position.**

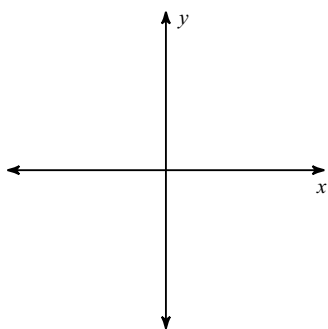
5)  $-150^\circ$



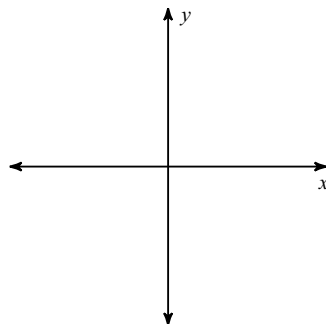
6)  $\frac{17\pi}{18}$



7)  $-\frac{\pi}{3}$



8)  $40^\circ$

**Find a positive and a negative coterminal angle for each given angle.**

9)  $135^\circ$

10)  $\frac{4\pi}{3}$

State the quadrant in which the terminal side of each angle lies.

11)  $\frac{17\pi}{12}$

12)  $-\frac{37\pi}{18}$

13)  $\frac{47\pi}{18}$

14)  $70^\circ$

Find the reference angle.

15)  $\frac{3\pi}{4}$

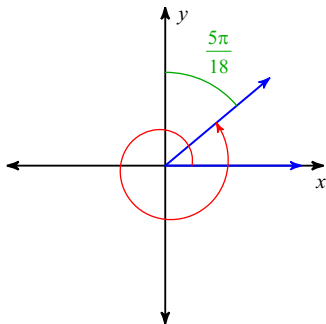
16)  $-\frac{11\pi}{12}$

17)  $-\frac{5\pi}{3}$

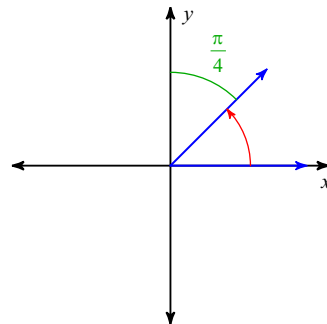
18)  $\frac{7\pi}{6}$

Find the measure of each angle.

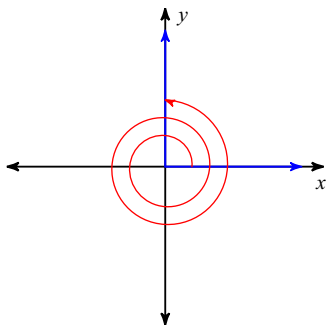
19)



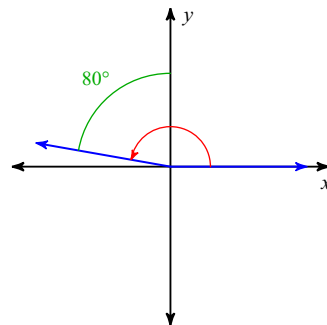
20)



21)

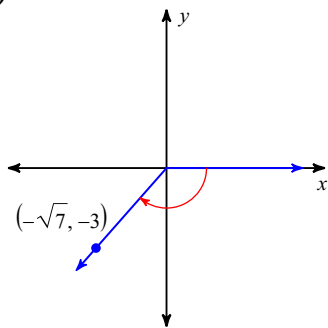


22)

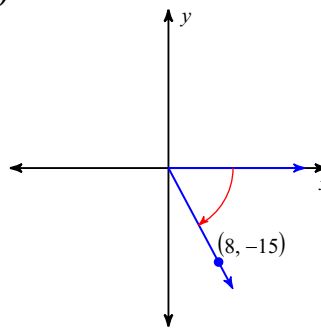


Use the given point on the terminal side of angle  $\theta$  to find the value of the trigonometric function indicated.

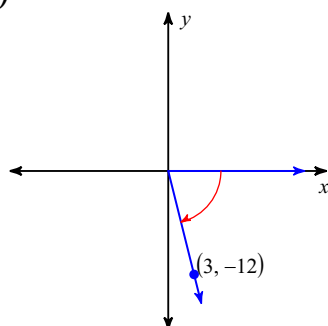
23)  $\cot \theta$



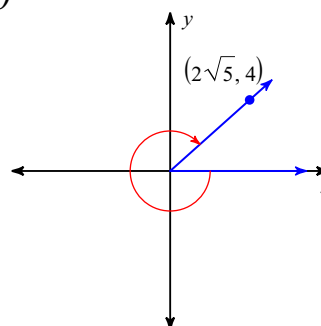
24)  $\csc \theta$



25)  $\sec \theta$

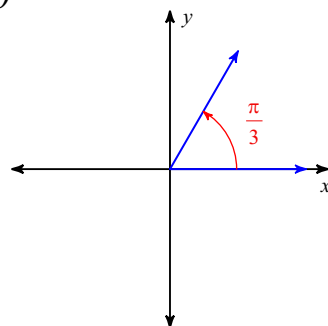


26)  $\cos \theta$

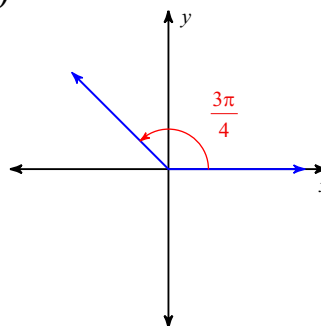


Find the exact value of each trigonometric function.

27)  $\cos \theta$



28)  $\csc \theta$



29)  $\sin -\frac{5\pi}{3}$

30)  $\cot 0^\circ$

31)  $\tan 210^\circ$

32)  $\sec \frac{\pi}{6}$

33)  $\cot \frac{\pi}{6}$

34)  $\cos \frac{2\pi}{3}$

**Solve each equation for  $0 \leq \theta < 360$ . Give exact values.**

35)  $-\frac{\sqrt{2}}{2} = \sin \theta$

36)  $\tan \theta = -\frac{\sqrt{3}}{3}$

**Solve each equation for  $0 \leq \theta < 2\pi$ . Give exact values.**

37)  $-2 = \sec \theta$

38)  $\csc \theta = 2$

**Solve each equation for  $0 \leq \theta < 2\pi$ . Round your answers to the nearest hundredth.**

39)  $0.86 = \sin \theta$

**Solve each equation for  $0 \leq \theta < 360$ . Round your answers to the nearest hundredth.**

40)  $-9.49 = \cot \theta$