

Angles in Standard Position

Block: ____ Mark Out Of 40 ____

Convert each degree measure into radians.

1) 50°

2) -30°

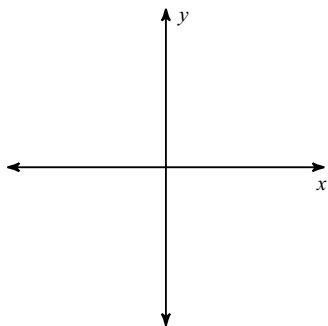
Convert each radian measure into degrees.

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

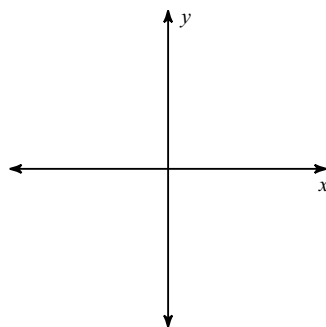
4) $\frac{49\pi}{12}$

Draw an angle with the given measure in standard position.

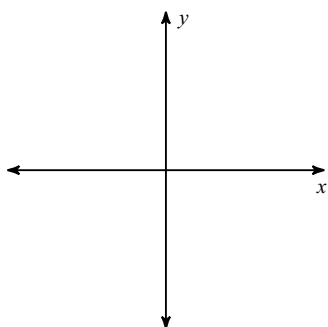
5) -230°



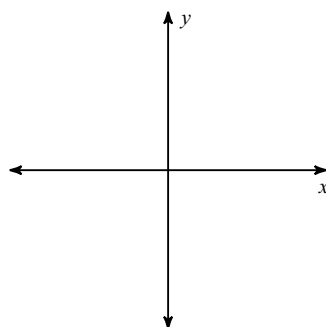
6) $\frac{17\pi}{18}$



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



8) $\frac{19\pi}{12}$

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

9) 135°

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°

Find the reference angle.

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

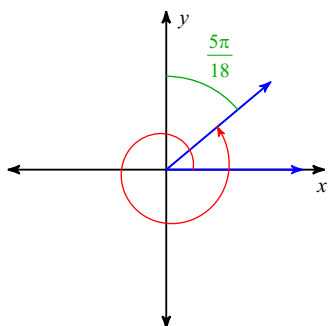
16) $-\frac{11\pi}{12}$

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

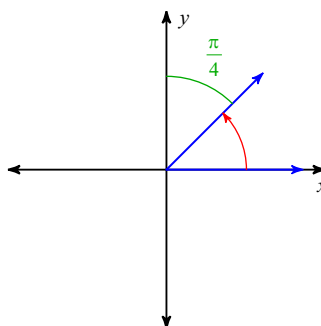
18) $\frac{7\pi}{6}$

Find the measure of each angle.

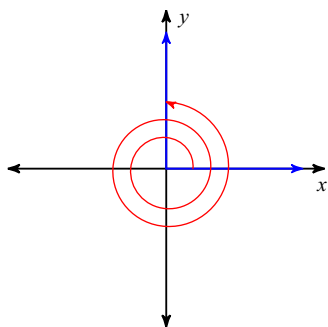
19)



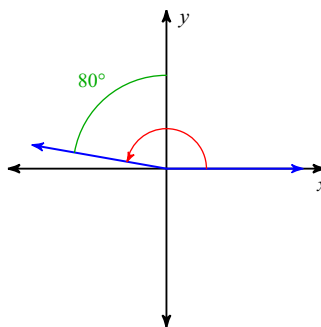
20)



21)

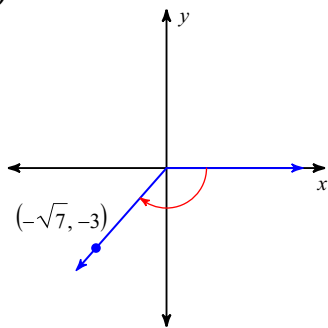


22)

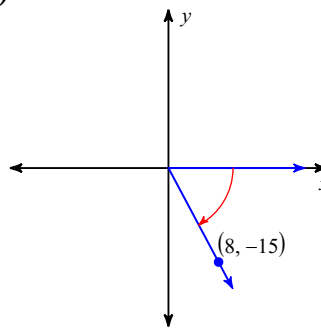


Use the given point on the terminal side of angle θ to find the value of the trigonometric function indicated.

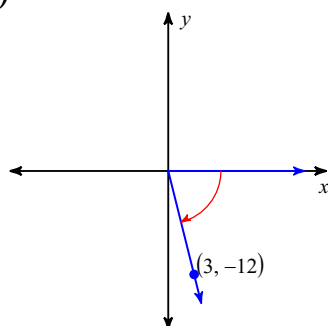
23) $\cot \theta$



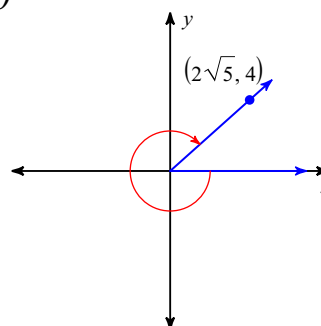
24) $\csc \theta$



25) $\sec \theta$

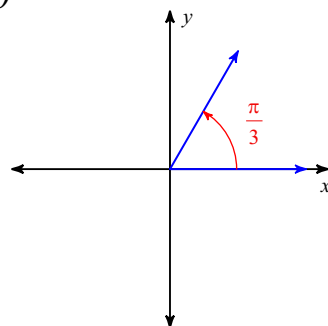


26) $\cos \theta$

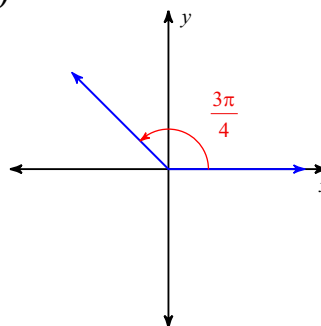


Find the exact value of each trigonometric function.

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) $-9.49 = \cot \theta$