

1. Describe the unit circle.

2. What do the  $x$ - and  $y$ -coordinates of the points on the unit circle represent?

For the following exercises, use the given sign of the sine and cosine functions to find the quadrant in which the terminal point determined by  $t$  lies.

6.  $\sin(t) < 0$  and  $\cos(t) < 0$

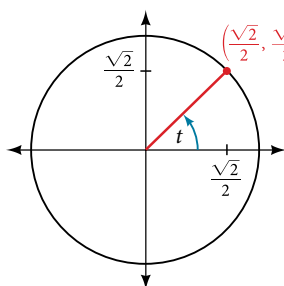
7.  $\sin(t) > 0$  and  $\cos(t) > 0$

8.  $\sin(t) > 0$  and  $\cos(t) < 0$

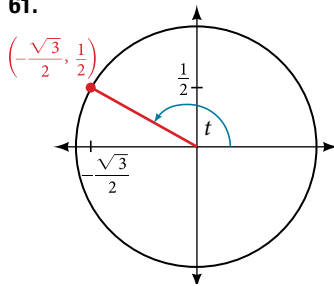
9.  $\sin(t) < 0$  and  $\cos(t) > 0$

For the following exercises, use the given point on the unit circle to find the value of the sine and cosine of  $t$ .

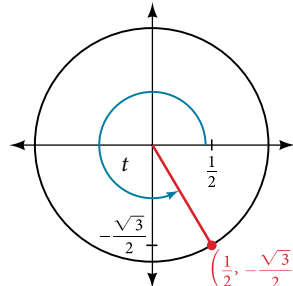
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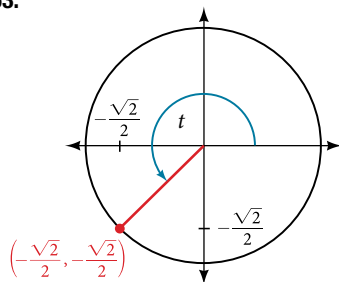
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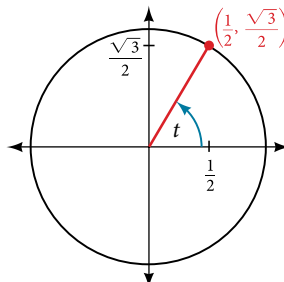
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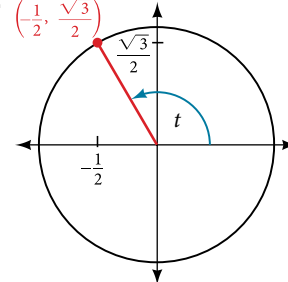
63.



64.



65.



For the following exercises, use a graphing calculator to evaluate.

80.  $\sin \frac{5\pi}{9}$

81.  $\cos \frac{5\pi}{9}$

82.  $\sin \frac{\pi}{10}$

83.  $\cos \frac{\pi}{10}$

84.  $\sin \frac{3\pi}{4}$

85.  $\cos \frac{3\pi}{4}$

86.  $\sin 98^\circ$

87.  $\cos 98^\circ$

88.  $\cos 310^\circ$

89.  $\sin 310^\circ$

For the following exercises, evaluate using your calculator.

90.  $\sin\left(\frac{11\pi}{3}\right)\cos\left(\frac{-5\pi}{6}\right)$

91.  $\sin\left(\frac{3\pi}{4}\right)\cos\left(\frac{5\pi}{3}\right)$

92.  $\sin\left(-\frac{4\pi}{3}\right)\cos\left(\frac{\pi}{2}\right)$

93.  $\sin\left(\frac{-9\pi}{4}\right)\cos\left(\frac{-\pi}{6}\right)$