

For each angle shown, determine the quadrant (I, II, III, or IV) and the requested trig function values. For the quadrant, if the angle is a multiple of $\frac{\pi}{2}$, then enter $+x$, $-x$, $+y$, or $-y$, for angles on the positive x-axis, negative x-axis, positive y-axis, or negative y-axis.

Angle θ (radians)	Quadrant	$\sin \theta$	$\cos \theta$
$\frac{\pi}{3}$			
$\frac{2\pi}{3}$			
$\frac{5\pi}{6}$			
$\frac{11\pi}{6}$			
$\frac{3\pi}{4}$			
π			
$\frac{7\pi}{4}$			
$\frac{11\pi}{3}$			
0			
$\frac{3\pi}{2}$			
$\frac{31\pi}{6}$			
$\frac{11\pi}{4}$			

If a point with coordinates (a, b) is on the unit circle at rotation θ , then the point on the unit circle at rotation $\theta + \frac{\pi}{2}$ has what coordinates?

If a point with coordinates (a, b) is on the unit circle at rotation θ , then the point on the unit circle at rotation $\theta - \pi$ has what coordinates?