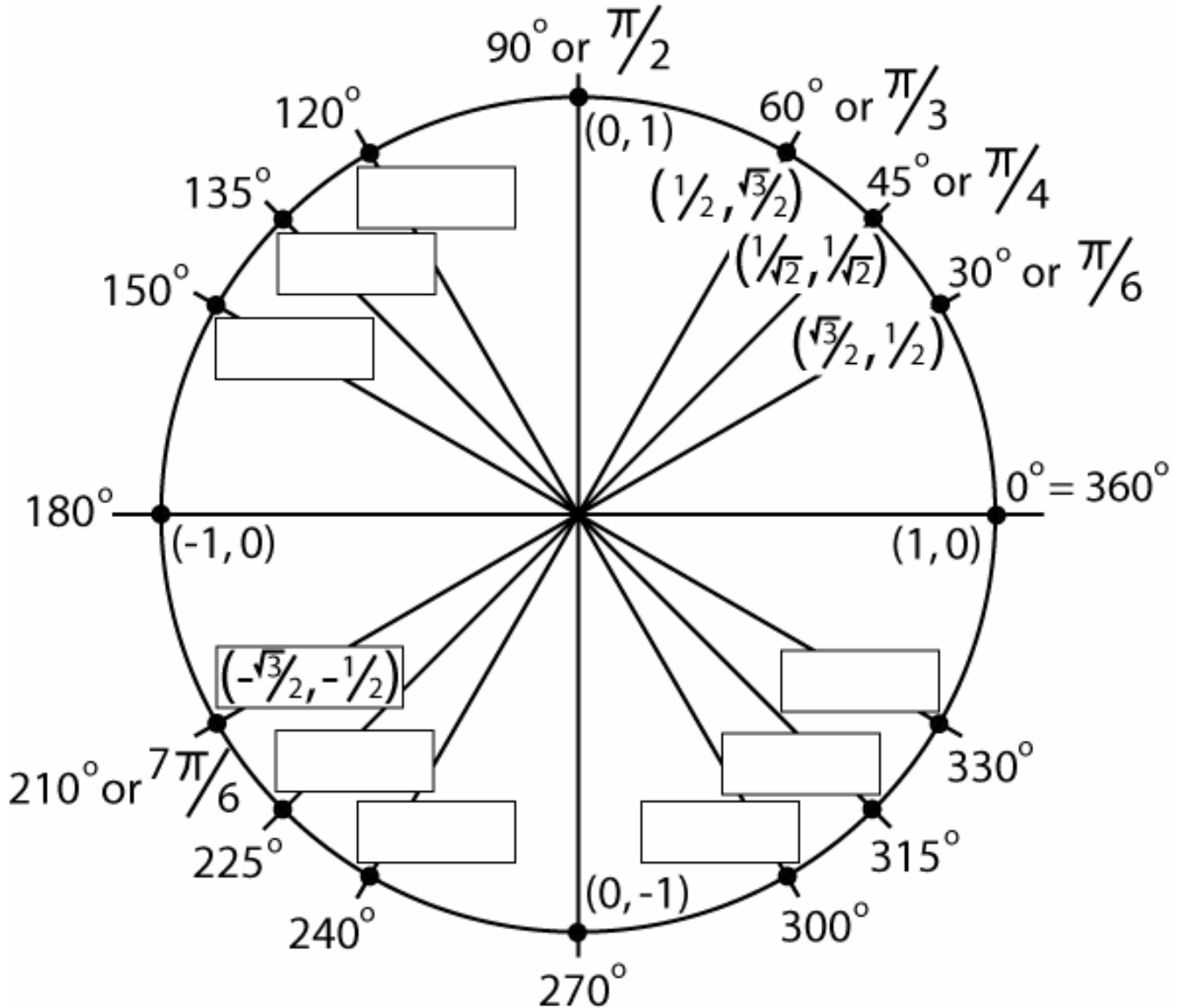


Unit Circle Trigonometry

NAME:

Below is a unit circle, meaning it is centered on the origin and has a radius of 1. The major angles and their corresponding points, in ordered pair notation, are drawn in and labeled.

Use the given ordered pairs and symmetry about the axes to determine the other ordered pairs. These ordered pairs will then help us find the sine, cosine, and tangent measurements of these angles.



Use your unit circle to complete the following table. Remember the sine, cosine, and tangent of an angle can be found by looking at the corresponding point on the unit circle.

θ in degrees	θ in radians	Point's coordinates (a, b)	Sine of θ $= b$	Cosine of θ $= a$	Tangent of θ $= b/a$
0	$0 * (\pi/180) = 0$	(1, 0)			
30	$30 * (\pi/180) = \pi/6 \approx .52$	$(\sqrt{3}/2, 1/2)$			
45	$45 * (\pi/180) = \pi/4 \approx .79$	$(1/\sqrt{2}, 1/\sqrt{2})$			
60	$60 * (\pi/180) = \pi/3 \approx 1.05$	$(1/2, \sqrt{3}/2)$			
90	$90 * (\pi/180) = \pi/2 \approx 1.57$	(0, 1)			
120					
135					
150					
180		(-1, 0)			
210	$210 * (\pi/180) = 7\pi/6 \approx 3.66$	$(-\sqrt{3}/2, -1/2)$			
225					
240					
270		(0, -1)			
300					
315					
330					
360		(1, 0)			