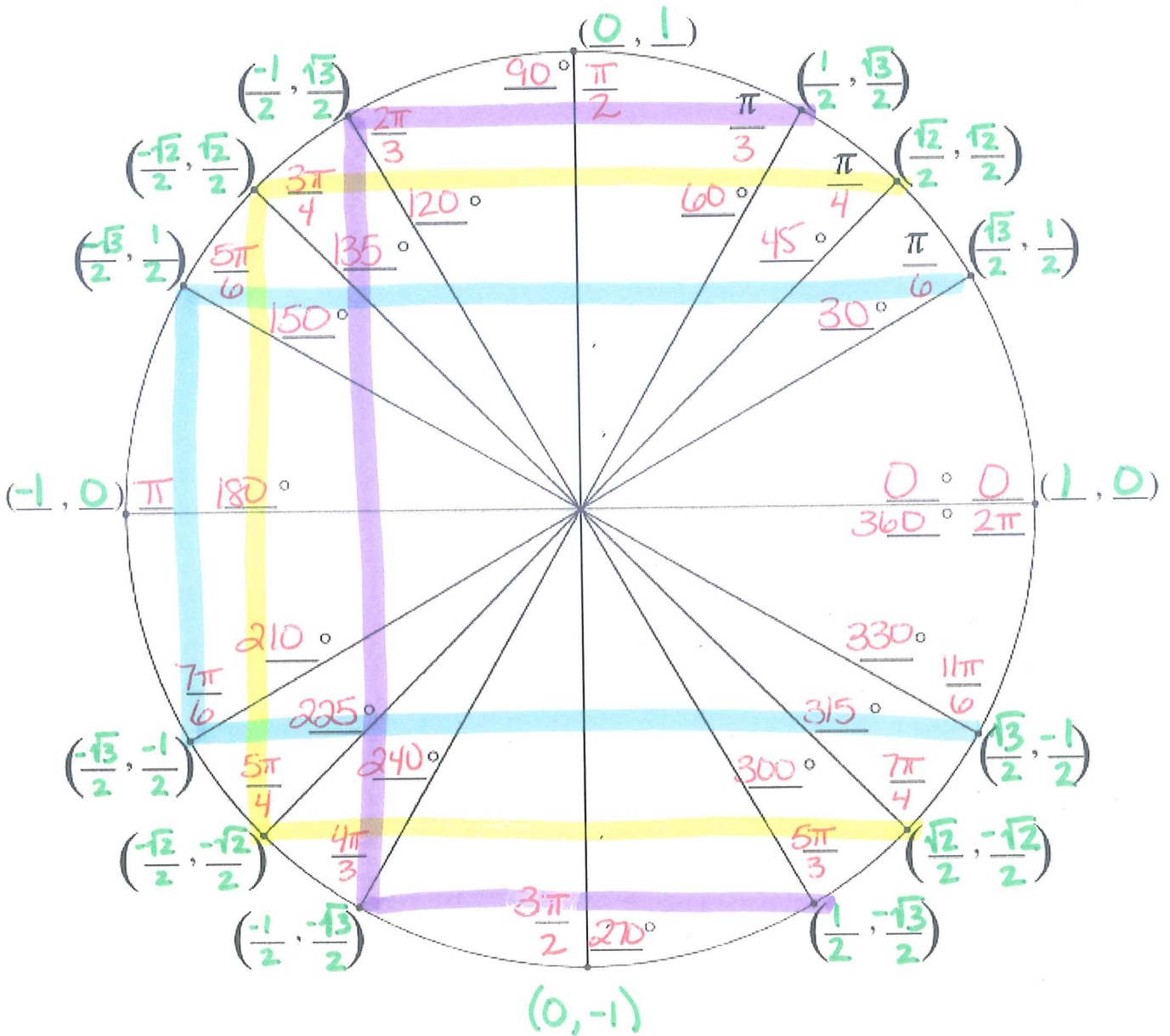


Name: _____

Unit Circle Practice

Complete the Unit Circle below. You will need to be able to fill out the entire unit circle on your test – it will not be graded, but it can help you answer some questions 😊 You do not need to have the entire thing memorized but you do need to know Quadrant I and then use that to fill in the circle.

$$(\cos \theta, \sin \theta)$$
$$\tan \theta = \frac{\sin \theta}{\cos \theta}$$



Use your unit circle to find the exact values of the functions below.

$\sin \frac{\pi}{6}$ $\frac{1}{2}$	$\cos \frac{\pi}{3}$ $\frac{1}{2}$	$\tan 60^\circ$ $\frac{\sqrt{3}}{2} \cdot \frac{2}{1} = \frac{2\sqrt{3}}{2}$ $\sqrt{3}$	$\sin 45^\circ$ $\frac{\sqrt{2}}{2}$	$\cos \frac{\pi}{4}$ $\frac{\sqrt{2}}{2}$	$\tan \frac{\pi}{6}$ $\frac{1}{2} \cdot \frac{2}{\sqrt{3}}$ $\frac{\sqrt{3}}{3}$	$\tan 45^\circ$ 1
$\cos 30^\circ$ $\frac{\sqrt{3}}{2}$	$\sin \frac{\pi}{3}$ $\frac{\sqrt{3}}{2}$	$\cos 30^\circ$ $\frac{\sqrt{3}}{2}$	$\sin \frac{\pi}{3}$ $\frac{\sqrt{3}}{2}$	$\tan 30^\circ$ $\frac{1}{2} \cdot \frac{2}{\sqrt{3}}$ $\frac{\sqrt{3}}{3}$	$\cos 45^\circ$ $\frac{\sqrt{2}}{2}$	$\tan \frac{\pi}{4}$ 1
$\cos 90^\circ$ 0	$\sin \frac{\pi}{2}$ 1	$\cos \pi$ -1	$\sin 2\pi$ 0	$\cos \frac{3\pi}{2}$ 0	$\cos 0$ 1	$\sin 180^\circ$ 0
$\sin -90^\circ$ $\sin 270$ -1	$\sin 6\pi$ 0	$\cos 9\pi$ -1	$\tan \frac{\pi}{2}$ $\frac{1}{0}$ und.	$\tan 2\pi$ 0	$\tan 180^\circ$ 0	$\tan 90^\circ$ $\frac{1}{0}$ und.
$\tan 270^\circ$ $\frac{-1}{0}$ und.	$\sin 180^\circ$ 0	$\cos -270^\circ$ $\cos 90$ 0	$\tan \frac{3\pi}{2}$ $\frac{-1}{0}$ und.	$\sin 2\pi$ 0	$\tan \frac{-\pi}{2}$ $\frac{-1}{0}$ und.	$\tan \frac{\pi}{2}$ $\frac{1}{0}$ und.
$\tan 7\pi$ 0	$\cos \frac{3\pi}{4}$ $-\frac{\sqrt{2}}{2}$	$\sin 210^\circ$ $-\frac{1}{2}$	$\cos \frac{11\pi}{6}$ $\frac{\sqrt{3}}{2}$	$\tan 120^\circ$ $\frac{\sqrt{3}}{2} \cdot \frac{2}{-1}$ $-\sqrt{3}$	$\sin \frac{5\pi}{3}$ $-\frac{\sqrt{3}}{2}$	$\tan \frac{4\pi}{3}$ $-\frac{\sqrt{3}}{2} \cdot \frac{2}{-1}$
$\tan \frac{5\pi}{4}$ 1	$\sin 225^\circ$ $-\frac{\sqrt{2}}{2}$	$\tan 300^\circ$ $-\frac{\sqrt{3}}{2} \cdot \frac{2}{1}$ $-\sqrt{3}$	$\tan \frac{7\pi}{4}$ -1	$\tan 150^\circ$ $\frac{1}{2} \cdot \frac{2}{-\sqrt{3}}$ $-\frac{\sqrt{3}}{3}$	$\cos \frac{-5\pi}{6}$ $\cos \frac{5\pi}{6}$ $-\frac{\sqrt{3}}{2}$	$\sin \frac{5\pi}{6}$ $\frac{1}{2}$
$\sin -120^\circ$ $\sin 240$ $-\frac{\sqrt{3}}{2}$	$\cos 240^\circ$ $-\frac{1}{2}$	$\tan \frac{7\pi}{6}$ $-\frac{1}{2} \cdot \frac{2}{-\sqrt{3}}$ $\frac{\sqrt{3}}{3}$	$\cos \frac{2\pi}{3}$ $-\frac{1}{2}$	$\cos -45^\circ$ $\cos 315$ $\frac{\sqrt{2}}{2}$	$\sin -240^\circ$ $\sin 120$ $\frac{\sqrt{3}}{2}$	$\sin 135^\circ$ $\frac{\sqrt{2}}{2}$
$\tan 135^\circ$ -1	$\cos 150^\circ$ $-\frac{\sqrt{3}}{2}$	$\sin 315^\circ$ $-\frac{\sqrt{2}}{2}$	$\cos 300^\circ$ $\frac{\sqrt{3}}{2}$	$\tan 330^\circ$ $\frac{-1}{2} \cdot \frac{2}{\sqrt{3}}$ $-\frac{\sqrt{3}}{3}$	$\cos 225^\circ$ $-\frac{\sqrt{2}}{2}$	$\sin \frac{7\pi}{2}$ $\sin \frac{3\pi}{2}$ -1