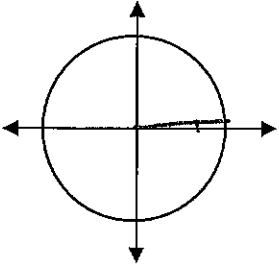


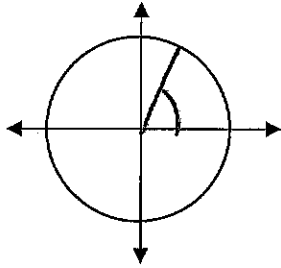
Practice with Radians

1. Draw each angle on its own unit circle below. Remember that $180^\circ = \pi$ radians. Also complete the conversion table at right.

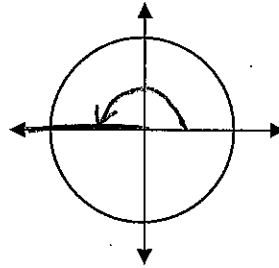
a) 1 degree



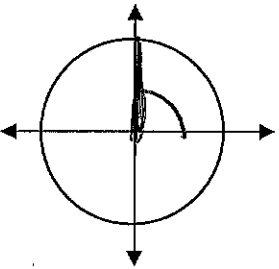
b) 1 radian



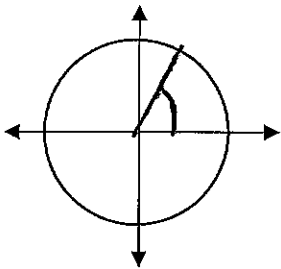
c) π radians



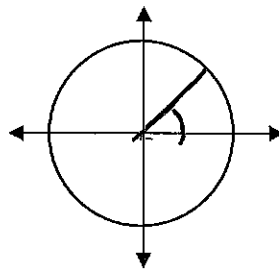
d) $\frac{\pi}{2}$ radians



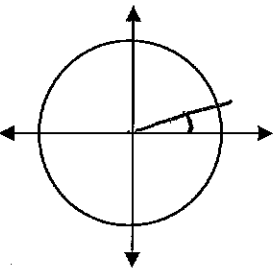
e) $\frac{\pi}{3}$ radians



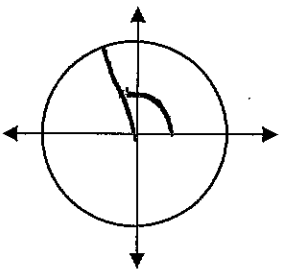
f) $\frac{\pi}{4}$ radians



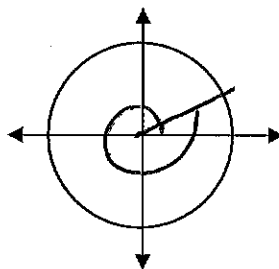
g) $\frac{\pi}{6}$ radians



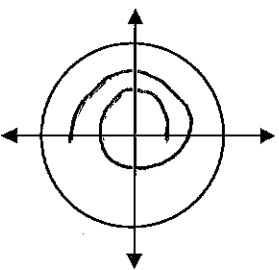
h) $\frac{2\pi}{3}$ radians



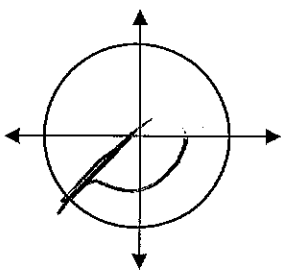
i) 390 degrees



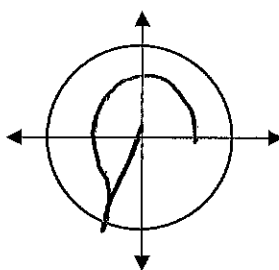
j) 10 radians



k) -135 degrees



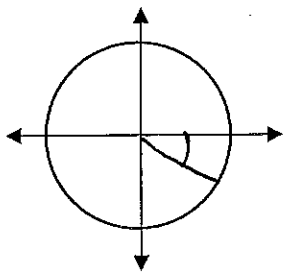
l) $\frac{4\pi}{3}$ radians



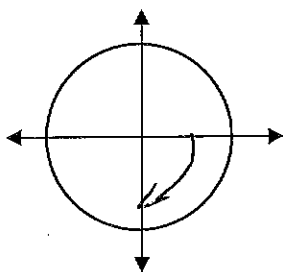
Radians	Degrees
$\pi/2$	90°
π	180°
$3\pi/2$	270°
2π	360°
$\pi/3$	60
$2\pi/3$	120
$4\pi/3$	240
$5\pi/3$	300
$\pi/4$	45°
$3\pi/4$	135°
$5\pi/4$	225°
$7\pi/4$	315°
$\pi/6$	30
$5\pi/6$	150
$7\pi/6$	210
$11\pi/6$	330
2π	360
$\pi/6$	30°
$\pi/3$	60°
$\pi/2$	90°
$2\pi/3$	120°
$5\pi/6$	150°
π	180°

2. Sketch each negative angle on its own unit circle, then state its positive equivalent. Make sure units (degrees vs. radians) are consistent with the original.

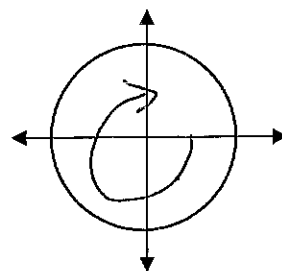
a) $-30^\circ = 330^\circ$



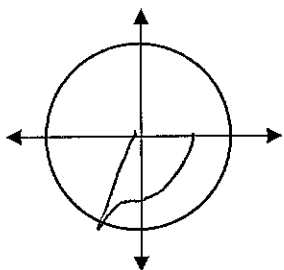
b) $-90^\circ = 270^\circ$



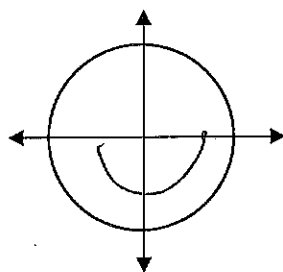
c) $-270^\circ = 90^\circ$



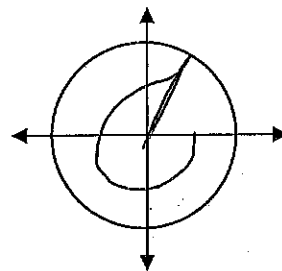
d) $-120^\circ = 240^\circ$



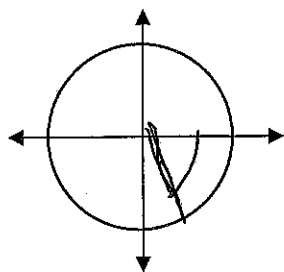
e) $-180^\circ = 180^\circ$



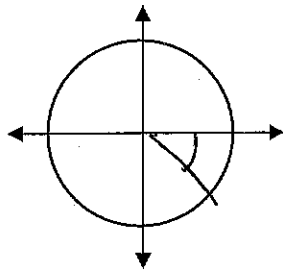
f) $-300^\circ = 60^\circ$



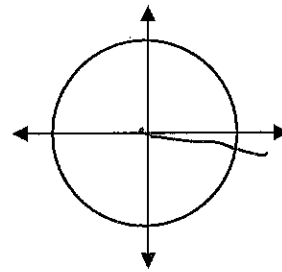
g) $-\frac{\pi}{3} = \frac{5\pi}{3}$



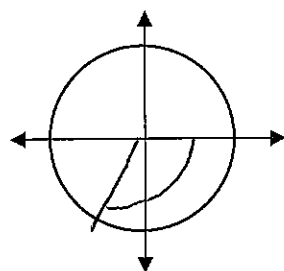
h) $-\frac{\pi}{4} = \frac{7\pi}{4}$



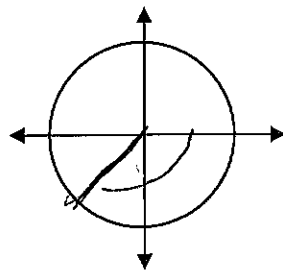
i) $-\frac{\pi}{6} = \frac{11\pi}{6}$



j) $-\frac{2\pi}{3} = \frac{4\pi}{3}$



k) $-\frac{3\pi}{4} = \frac{5\pi}{4}$



l) $-\frac{5\pi}{6} = \frac{7\pi}{6}$

