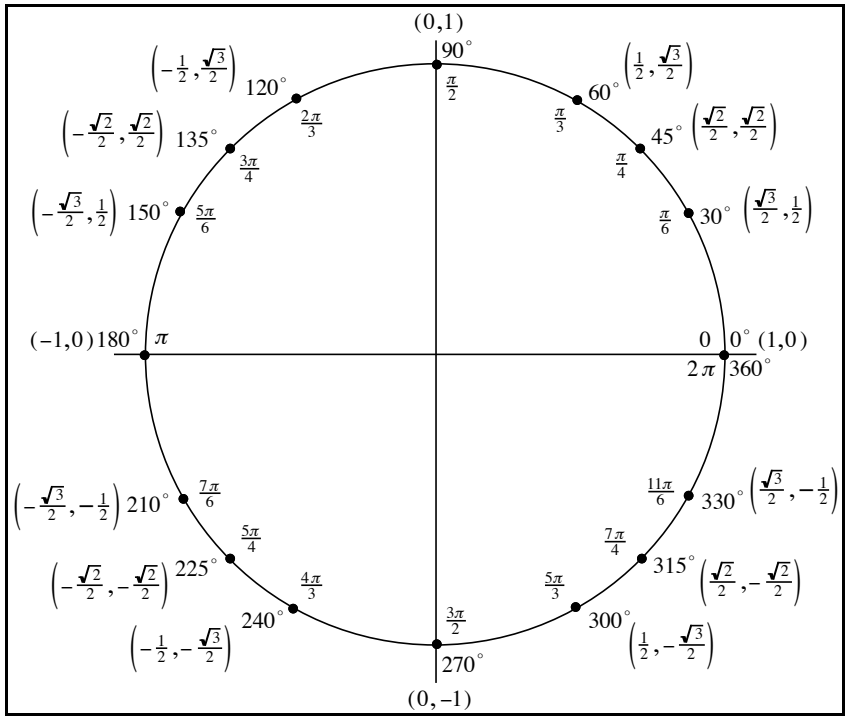
The Unit Circle



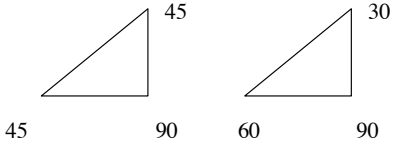
$(x, y) = (\cos\theta, \sin\theta)$

$$\tan\theta = \frac{\sin\theta}{\cos\theta} \qquad \cot\theta = \frac{\cos\theta}{\sin\theta}$$

$$\sin^2\theta + \cos^2\theta = 1 \qquad \tan^2\theta + 1 = \sec^2\theta \qquad 1 + \cot^2\theta = \csc^2\theta$$

$r = \sqrt{x^2 + y^2}$

$s = r\theta$



The cosine and secant functions are **<u>even</u>**.

$\cos(-t) = \cos(t)$ $\qquad$ $\sec(-t) = \sec(t)$

The sine, cosecant, tangent, and cotangent functions are **<u>odd</u>**.

$\sin(-t) = -\sin(t)$ $\qquad$ $\csc(-t) = -\csc(t)$

$\tan(-t) = -\tan(t)$ $\qquad$ $\cot(-t) = -\cot(t)$

Formulas for General Form $y = a\sin(bx - c) + d$ **and** $y = a\cos(bx - c) + d$

APTEV $\boxed{\frac{\text{period}}{4}}$ $\boxed{d}$ $\boxed{|a|}$ $\boxed{bx - c = 0 \quad bx - c = 2\pi}$ $\boxed{\frac{2\pi}{b}}$