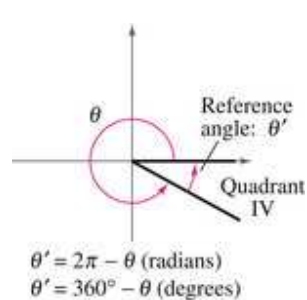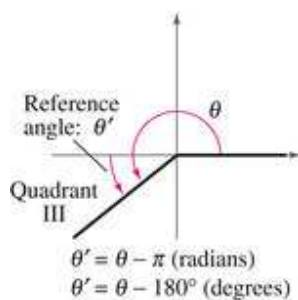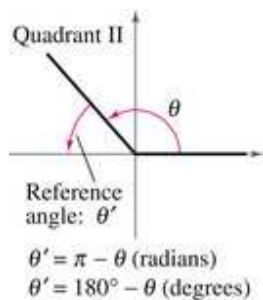**Trigonometric Functions of Any Angle**

Reference Angles

Definition of Reference Angle

Let θ be an angle in standard position. Its reference angle, θ', is

_____.

$\theta' = \pi - \theta$ (radians)
$\theta' = 180° - \theta$ (degrees)

$\theta' = \theta - \pi$ (radians)
$\theta' = \theta - 180°$ (degrees)

$\theta' = 2\pi - \theta$ (radians)
$\theta' = 360° - \theta$ (degrees)
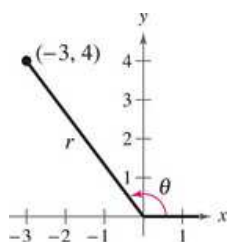
The values of the trig functions of angles greater than 90 degrees can be determined from

their reference angles, which _____.

Signs of Trig Functions
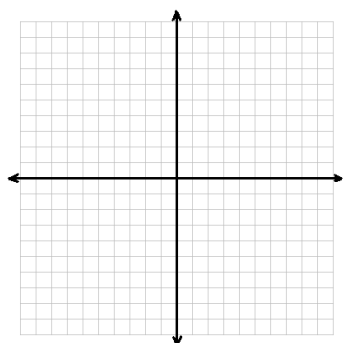
Evaluating Trig Functions

Example 1: Find the sine, cosine, and tangent of θ.

Trigonometric Functions of Any Angle

Practice Problem 1: Let (-2, 3) be a point on the terminal side of θ. Find the sine, cosine, and tangent of θ.

Example 2: Find the values of the six trig functions of θ.

    a) $\tan\theta = -\dfrac{15}{8}, \quad \sin\theta < 0$ b) $\sec\theta = -2, \quad 0 \le \theta \le \pi$