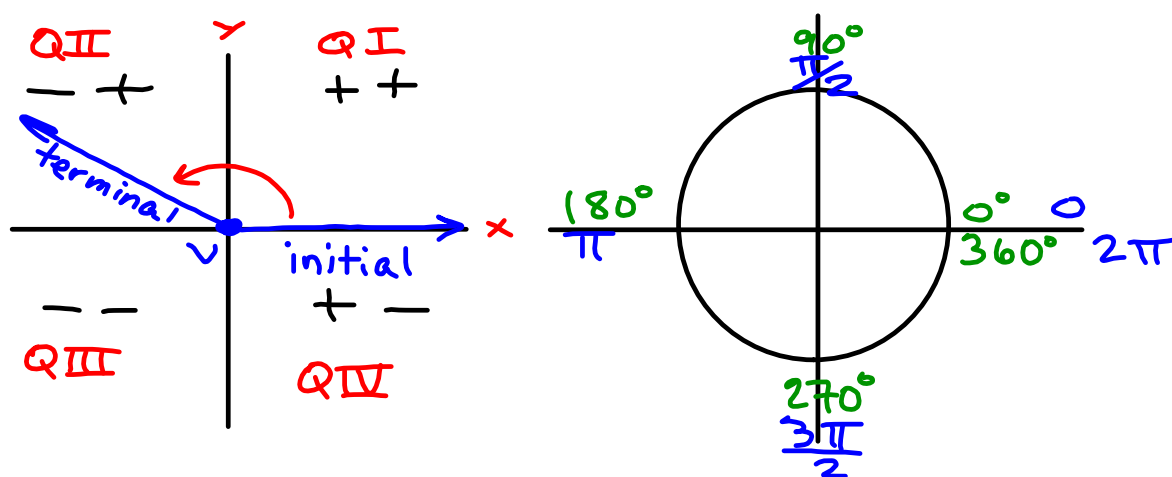


All About ANGLES

Standard Position: the vertex is at the origin and the initial side lies on the positive side of the x-axis



Initial & Terminal Sides:

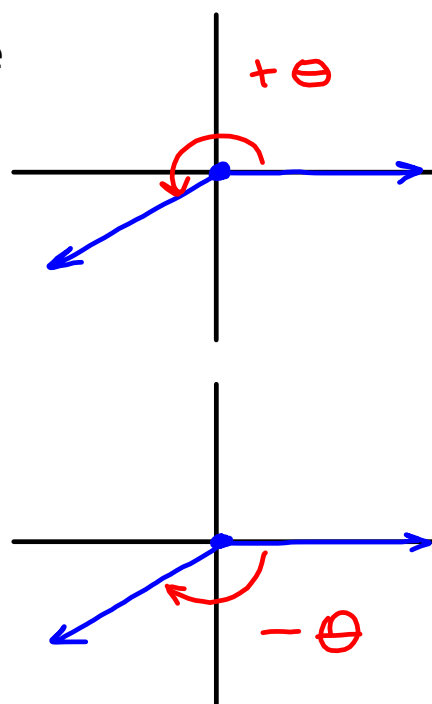
the *initial* is the starting side and the *terminal* is the ending side of an angle.

Positive Angle:

an angle is *positive* when it rotates in a **counter-clockwise** direction.

Negative Angle:

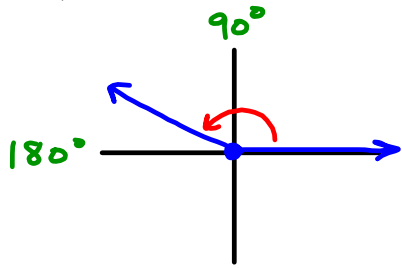
an angle that rotates in a **clockwise** direction is *negative*.



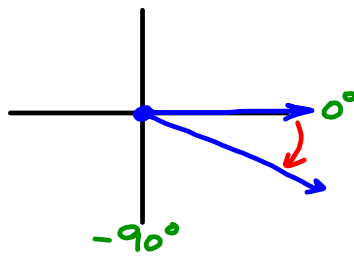
Examples :

1. Sketch the angles in standard position.

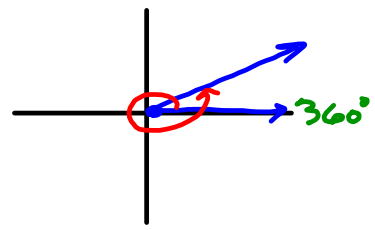
a) 159°



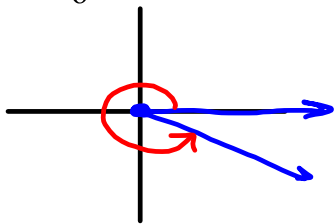
b) -29°



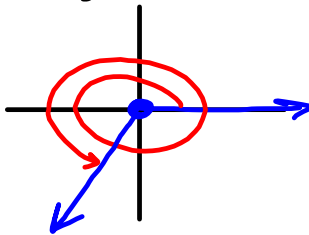
c) 390°



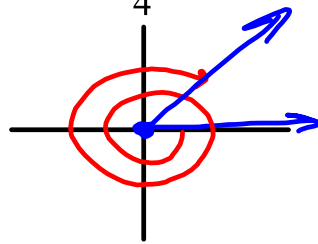
d) $\frac{11\pi}{6} \approx 1.83\pi$



e) $\frac{10\pi}{3} \approx 3.3\pi$



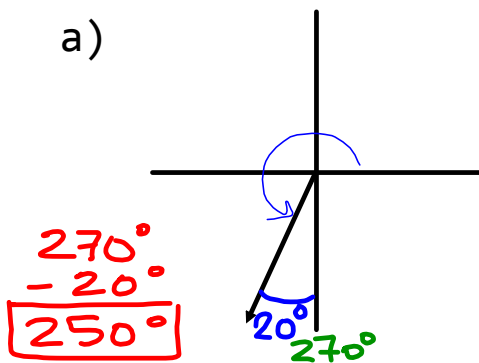
f) $-\frac{15\pi}{4} = -3.75\pi$



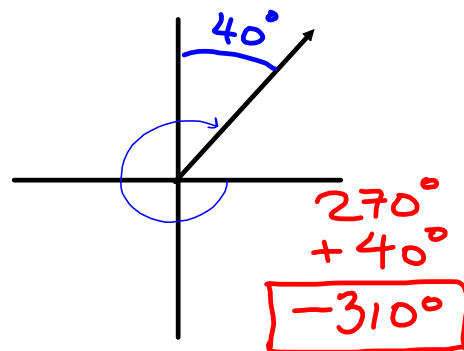
Examples :

2. Find the measure of each angle.

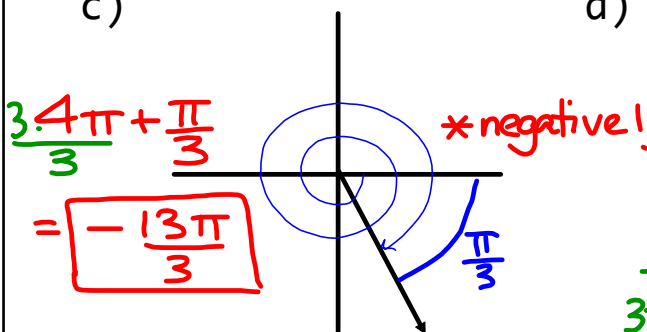
a)



b)



c)



d)

