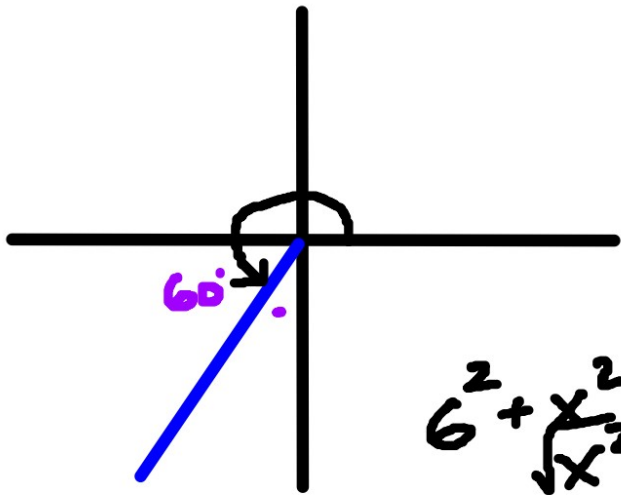
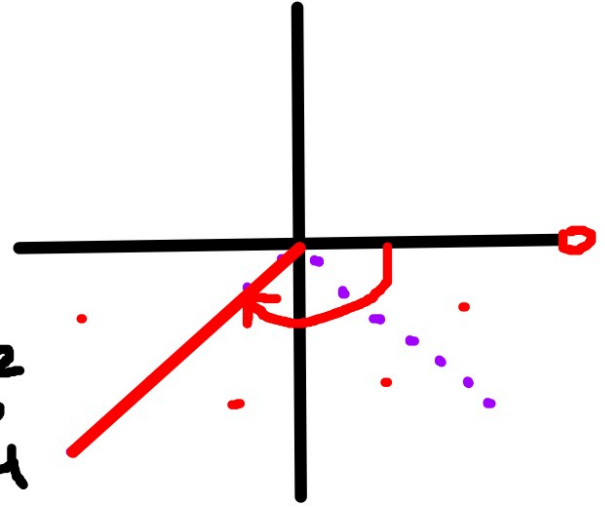


DRILL

① Sketch a 240° angle

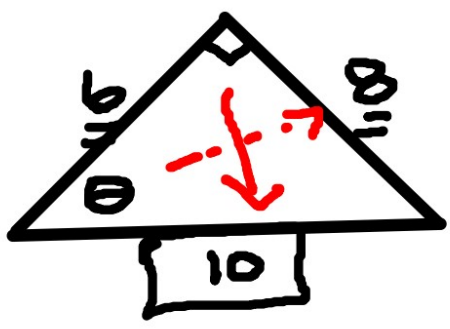


② Sketch a $-\frac{3\pi}{4}$ angle



$$6^2 + x^2 = 10^2$$
$$\sqrt{x^2} = \sqrt{64}$$

③

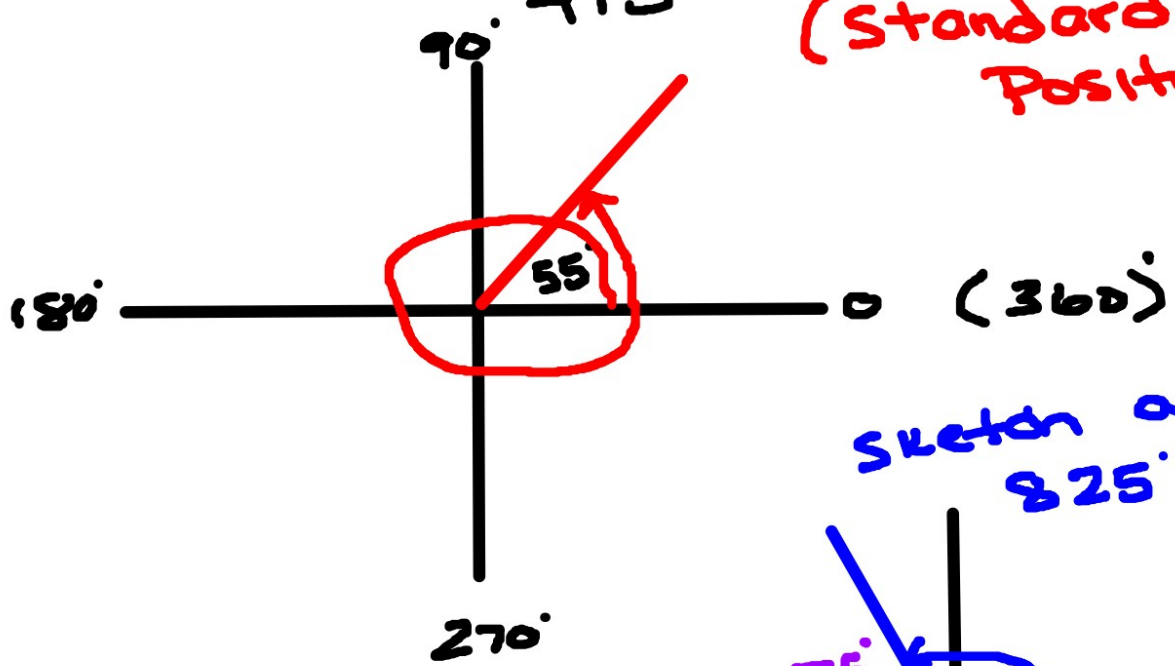


$$\csc \theta = \frac{\text{hyp}}{\text{opp}}$$

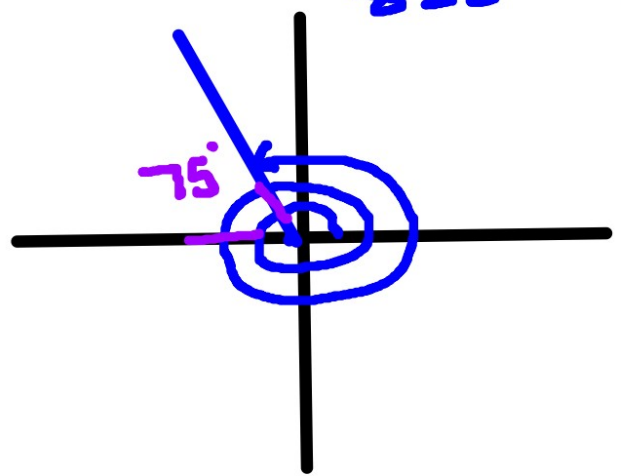
Find $\csc \theta$

$$\csc \theta = \frac{10}{8} = \frac{5}{4}$$

Sketch an angle of 415° (Standard Position)



Sketch a 825° angle



Coterminal Angles

* Angles with different measures but in the same location. EX: 20° & 380°

DEGREES: $\theta \pm 360^\circ n$

* "n is an integer" *

RADIANS: $\theta \pm 2\pi n$

Find one positive & one negative coterminal angle for each measure:

$$\textcircled{1} \quad 130^\circ \begin{array}{l} \rightarrow 130 + 360 = 490^\circ \checkmark \\ \rightarrow 130 - 360 = -230^\circ \checkmark \end{array}$$

$$\textcircled{2} \quad -\frac{\pi}{2} \begin{array}{l} \rightarrow -\frac{\pi}{2} + \frac{4}{2} \frac{2\pi}{2} = \frac{3\pi}{2} \checkmark \\ \rightarrow -\frac{\pi}{2} - \frac{4}{2} \frac{2\pi}{2} = -\frac{5\pi}{2} \checkmark \end{array}$$

Ex:

One (+) & One (-)

$$-1080 - 360 = -1440^\circ$$

$$-1080 + 360 = -720^\circ$$

$$-1080 + 720 = -360^\circ$$

$$-1080 + 1080 = 0^\circ$$

$$-1080 + 1440 = 360^\circ$$

③

$$-1080^\circ$$

$$2\pi = \frac{6\pi}{3}$$

④

$$\frac{11\pi}{3}$$

$$\frac{11\pi}{3} - \frac{6\pi}{3} = \frac{5\pi}{3}$$

$$\frac{11\pi}{3} - \frac{12\pi}{3} = -\frac{1\pi}{3}$$