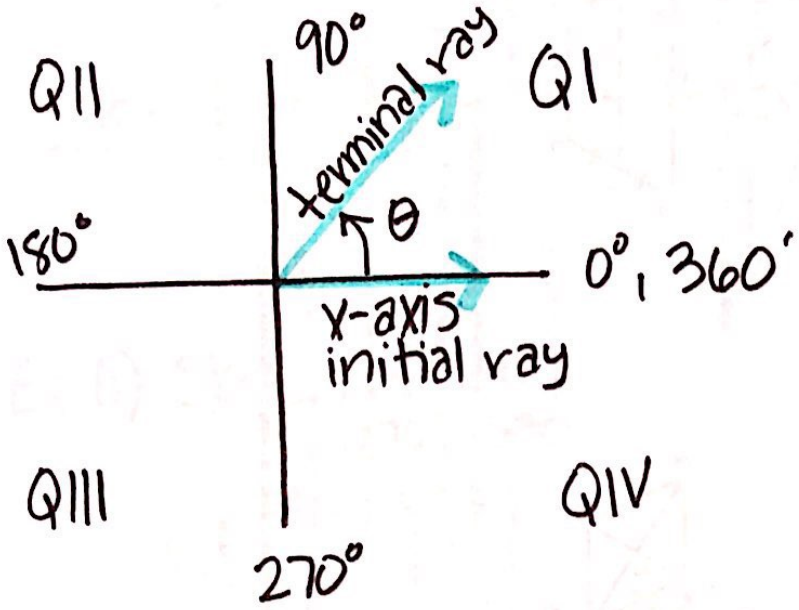
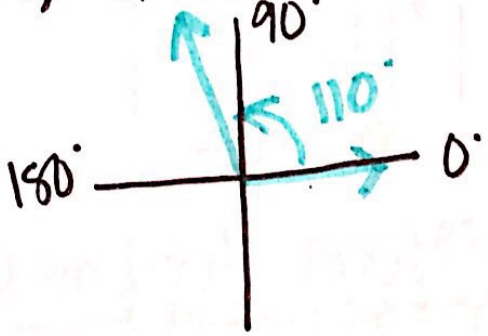
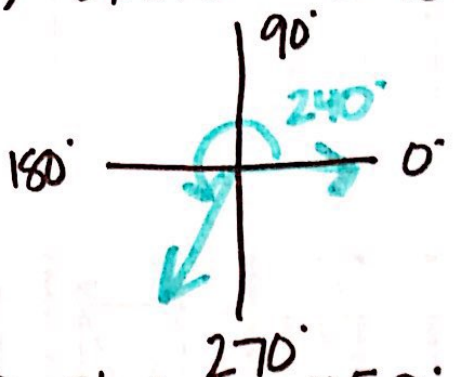
7.1 : Angles in Degrees



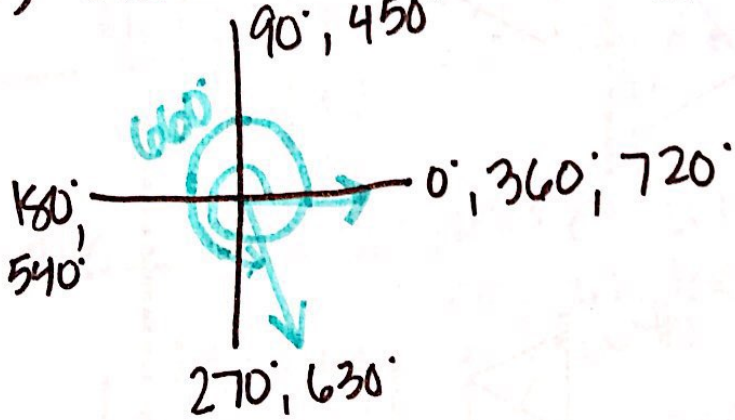
Ex 1) Sketch 110°



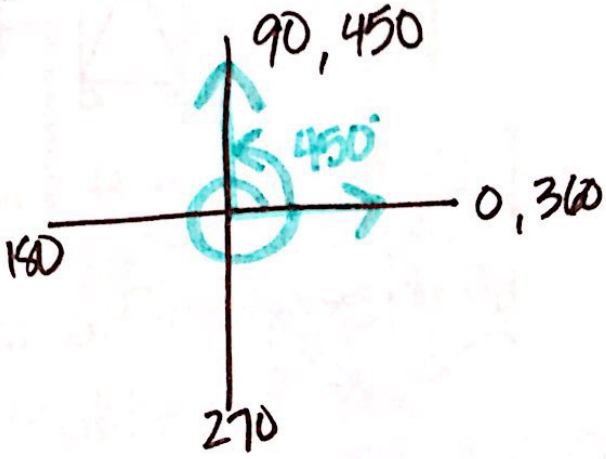
Ex 2) Sketch 240°



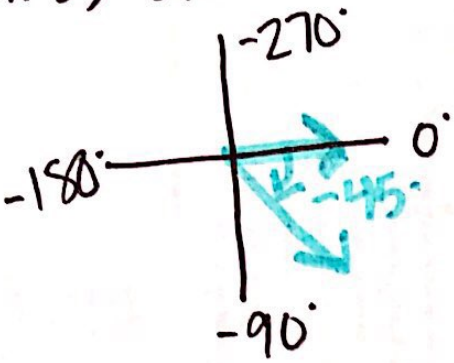
Ex 3) Sketch 660°



Ex 4) Sketch 450°

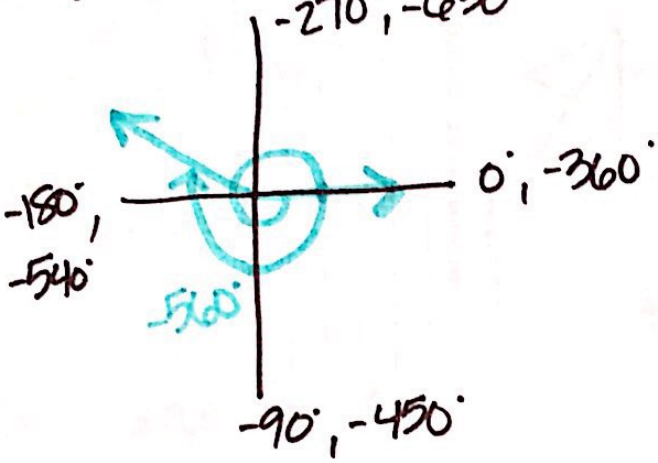


Ex 5) Sketch $-45°$

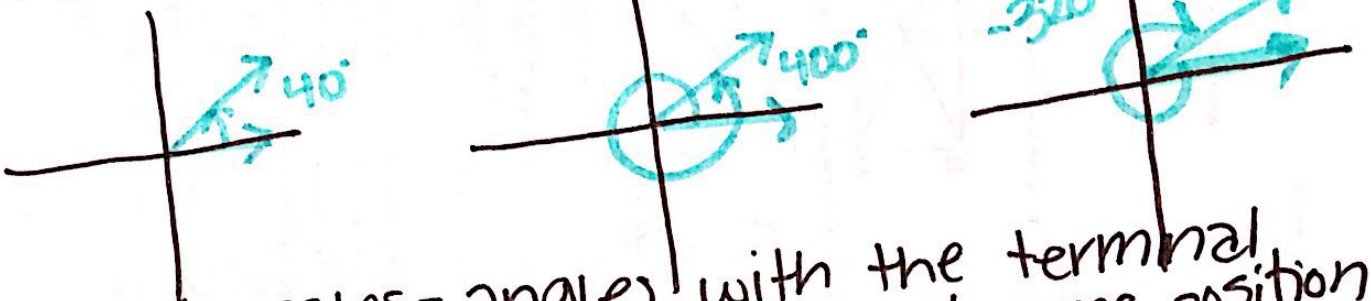


* negative = clock-wise
* positive = counter clockwise

Ex 6) Sketch $-560°$



Coterminal Angles



Coterminal angles - angles with the terminal ray in the exact same position but with a different spiral

To find coterminal angles, add/subtract $360°$

Ex 7) Find 2 positive & 2 negative coterminal angles for $20°$

$20° + 360° = \boxed{380°}$ $+360° = \boxed{740°}$

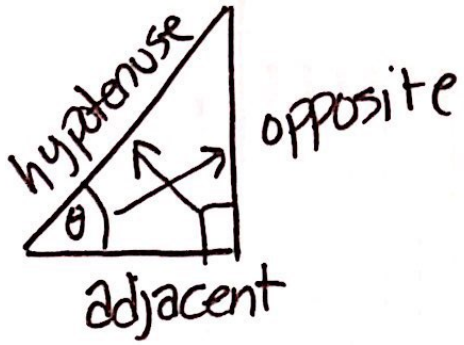
$20° - 360° = \boxed{-340°}$ $-360° = \boxed{-700°}$

Ex 8) Find 2 positive & 2 negative coterminal angles for $-586°$

$-586° + 360° = \boxed{-226°} + 360° = \boxed{134°} + 360° = \boxed{494°}$

$-586° - 360° = \boxed{-946°}$

Right Triangle Trig



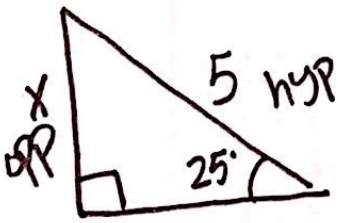
"SOH CAH TOA"

$\sin\theta = \frac{opp}{hyp}$

$\cos\theta = \frac{adj}{hyp}$

$\tan\theta = \frac{opp}{adj}$

Ex 1) Solve for x

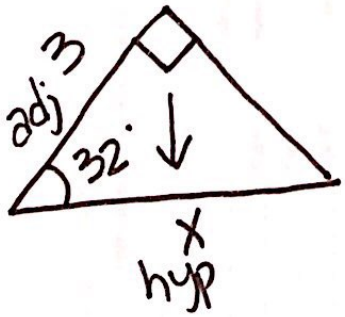


$\sin 25° = \frac{x}{5}$

$5(.4226...) = \frac{x}{5} \cdot 5$

$\boxed{x = 2.11}$

Ex 2) Solve for x



$\cos 32° = \frac{3}{x}$

$x \cdot .848... = \frac{3}{x} \cdot x$

$\frac{x \cdot 0.848...}{0.848...} = \frac{3}{0.848...}$

$\boxed{x = 3.54}$

* angle of elevation = angle going UP