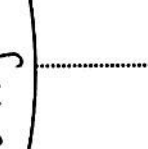



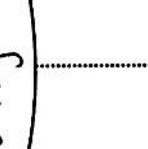



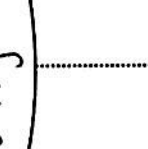


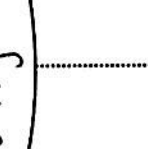

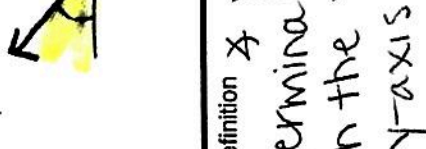



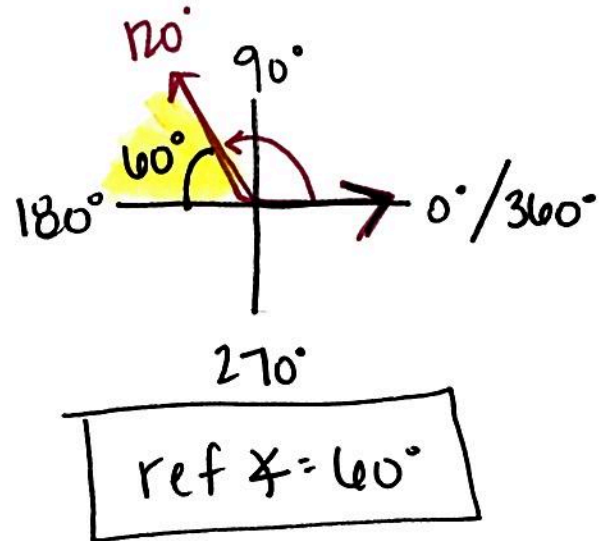
<p>Definition - When the <math>\angle</math>'s vertex is at the origin and the initial side is on the positive x-axis</p> <p>Examples</p>  <p>initial terminal</p>	<p>Facts/Characteristics</p> <p><math>\angle</math> has an initial side and a terminal side</p> <p>Standard position</p> <p>Non-Examples</p>  <p>INCORRECT!</p>	<p>Definition acute <math>\angle</math> formed by the terminal side and the x-axis</p> <p><math>0^\circ \leq \angle \leq 90^\circ</math></p> <p>Reference angle</p> <p>Examples</p>  <p>Non-Examples</p>  <p>Incorrect! <math>\rightarrow</math> y-axis!</p>	<p>Facts/Characteristics</p> <p>ALWAYS POSITIVE!</p> <p>* shortest distance back to the x-axis</p>
<p>Definition Starting at the initial side, the angle opens COUNTERCLOCKWISE</p> <p>Examples</p>  <p>270°</p>	<p>Facts/Characteristics</p> <p>Can rotate more or less than 360°</p> <p>Positive angle</p> <p>Non-Examples</p>  <p>clockwise!</p>	<p>Definition <math>\angle</math> whose terminal side is on the x-axis or y-axis</p> <p>quadrantal angle</p> <p>Examples</p>  <p>270°</p> <p>Non-Examples</p> 	<p>Facts/Characteristics</p> <p><math>0^\circ, 90^\circ, 180^\circ, 270^\circ, 360^\circ</math>, etc.</p>
<p>Definition Starting at the initial side, the angle opens COUNTERCLOCKWISE</p> <p>Examples</p>  <p>135°</p>  <p><math>360^\circ + 135^\circ = 495^\circ</math></p>	<p>Facts/Characteristics</p> <p>Can rotate MORE or LESS than 360°</p> <p>Negative angle</p> <p>Non-Examples</p>  <p>rotated counter-clockwise!</p>	<p>Definition <math>\angle</math>s that have the same initial <math>\angle</math> terminal sides, but different rotations</p> <p>Coterminal angle</p> <p>Examples</p>  <p>135°</p>  <p>-225°</p>  <p>495°</p> <p><math>135^\circ + 360^\circ = 495^\circ</math></p> <p>Non-Examples</p> 	<p>Facts/Characteristics</p> <p>ADD or SUBTRACT <math>360^\circ</math> or <math>2\pi</math> from <math>\angle</math></p>

$135^\circ - 360^\circ = -225^\circ$

Convert the  $\theta$  to radians or degrees.  
 Draw  $\theta$  in standard position, state  
 reference  $\theta$ , and find a positive and  
 negative coterminal  $\theta$ .

$$\textcircled{1} \quad \frac{120^\circ}{1} \cdot \frac{\pi}{180} = \frac{120\pi}{180}$$

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



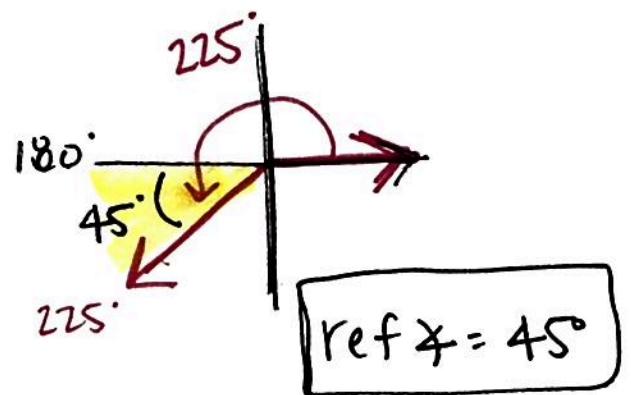
$$120^\circ + 360^\circ = \boxed{480^\circ}$$

$$120^\circ - 360^\circ = \boxed{-240^\circ}$$

coterminal  $\theta$ s

$$\textcircled{2} \quad \frac{5\pi}{4} \cdot \frac{180}{\pi} = \frac{900\pi}{4\pi}$$

$$= \boxed{225^\circ}$$



$$\frac{5\pi}{4} + 2\pi = \boxed{\frac{13\pi}{4}}$$

$$\frac{5\pi}{4} - 2\pi = \boxed{-\frac{3\pi}{4}}$$