September 6

SWBAT: Identify the location of various angles and convert between radians and degrees.

Convert to Radians: 130°

$\frac{\pi \text{ rad}}{180^\circ} = \frac{x}{130}$

$130\pi = 180x$

$x = \frac{130\pi}{180} = \frac{13\pi}{18}$

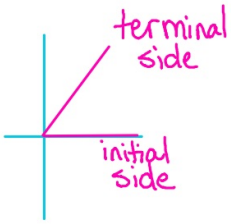
Convert to Degrees: $\frac{\pi}{3}$

$\frac{180}{\pi} = \frac{x}{\frac{\pi}{3}}$

$\frac{\frac{\pi}{3}(180)}{\pi} = \frac{\pi x}{\pi} \rightarrow \frac{1}{3}(180) = x$

$\frac{180}{3} = 60^\circ = x$

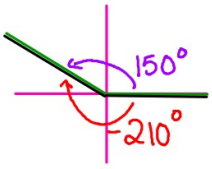
Standard Position vertex is at the origin & the initial side is on the positive x-axis



Positive Angles generated by a counter-clockwise rotation ↶

Negative Angles generated by a clockwise rotation ↷

Coterminal Angles Angles with the same initial & terminal sides



Put the following fractions in order

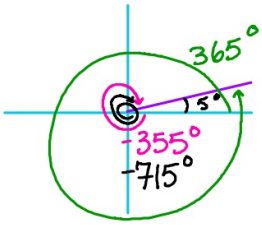
$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{\pi}{2}$	$\frac{2\pi}{3}$	$\frac{3\pi}{4}$	$\frac{5\pi}{6}$	π
$\frac{7\pi}{6}$	$\frac{5\pi}{4}$	$\frac{4\pi}{3}$	$\frac{3\pi}{2}$	$\frac{5\pi}{3}$	$\frac{7\pi}{4}$	$\frac{11\pi}{6}$	2π

Place the angles in the correct quadrant

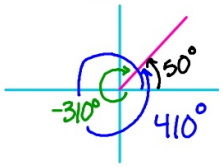
$\frac{2\pi}{3}$ $\frac{5\pi}{6}$ 130^o 175^o	5^o $\frac{\pi}{3}$ $\frac{\pi}{6}$ 50^o
210^o 190^o $\frac{4\pi}{3}$ $\frac{5\pi}{4}$	$\frac{5\pi}{3}$ 350^o 280^o $\frac{7\pi}{4}$

Find two coterminal angles:

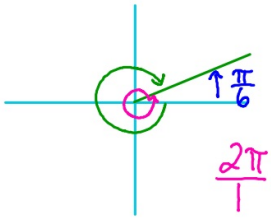
5°



50°



$\frac{\pi}{6}$



$\frac{2\pi}{1} + \frac{\pi}{6} = \frac{12\pi}{6} + \frac{\pi}{6}$

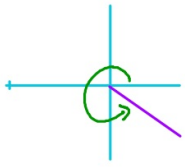
$= \frac{13\pi}{6}$

$\frac{5\pi}{3}$

$\frac{\pi}{6} - \frac{2\pi}{1} = \frac{\pi}{6} - \frac{12\pi}{6}$

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

$\frac{5\pi}{3}$



$\frac{5\pi}{3} + \frac{2\pi}{1} = \frac{5\pi}{3} + \frac{6\pi}{3}$

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

$\frac{5\pi}{3} - \frac{2\pi}{1} = \frac{5\pi}{3} - \frac{6\pi}{3}$

$= \frac{-\pi}{3}$