

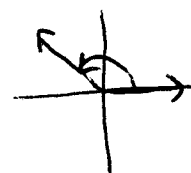
Q<sub>2</sub> or II

90° y

Q<sub>1</sub> or I

Coterminal  
Angles

Drawing  
Angles



180°

(90-180)° (0-90)°

0° x

(180-270)° (270-360)°

360°

Radians  
to  
Degrees

Degrees  
to

Radians

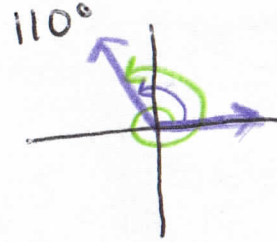
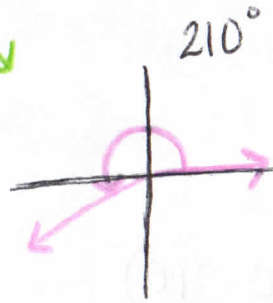
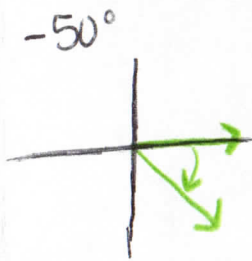
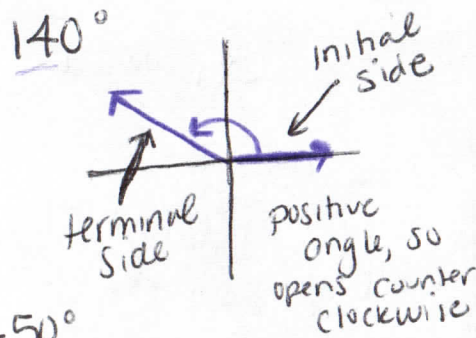
Q<sub>3</sub> or III

270°

Q<sub>4</sub> or IV

### Initial side:

Starting side of an angle, it is found on the positive x-axis if the angle is in standard position.



$$110 + 360 = 470^\circ$$

$$110 - 360 = -250^\circ$$

Coterminal Angles:  
angles that share the same ending or terminal side.

Add or subtract 360 to find coterminal angles

### Terminal side:

ending side of an angle.

- positive opens counter-clockwise
- negative opens clockwise

1.) Given

$$1.) 225^\circ$$

$$1.) \frac{11\pi}{6}$$

1.) Given

2.) multiply by  $\frac{\pi}{180}$

$$2.) \frac{225}{1} \cdot \frac{\pi}{180}$$

$$2.) \frac{11\pi}{6} \cdot \frac{180}{\pi}$$

2.) multiply by  $\frac{180}{\pi}$

3.) Reduce the fraction in front of  $\pi$ .  
(make sure to keep  $\pi$ )

$$\frac{225\pi}{180} \div \frac{5}{5} = \frac{45\pi}{36}$$

$$3.) \frac{11\pi}{6} \cdot \frac{180}{\pi} = \frac{1980}{6}$$

3.) cross out the  $\pi$ , multiply and divide!

$$\frac{45\pi}{36} \div \frac{9}{9} = \frac{5\pi}{4}$$

$$\frac{1980}{6} = 330^\circ$$

final answer!