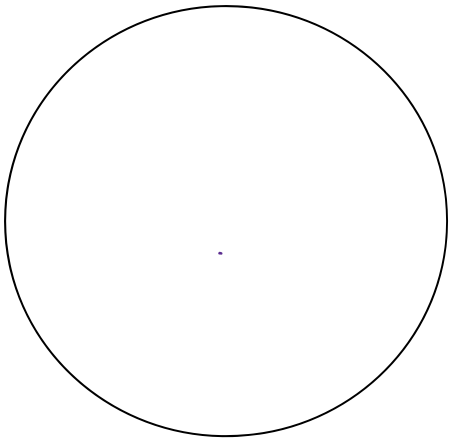
Name: _____ Date: _____

Learning Goal 4.1	Examining angles in standard position in both radians and degrees. Exploring the unit circle, reference and coterminal angles and special angles.



Radian Measure

Example Convert to radians, leave your answer as an exact value.

a. $60°$ b. $225°$

Example Convert to radians, round your answer to the nearest hundredth.

a. $18°$ b. $312°$

Example Convert to degrees, round your answer to the nearest degree.

a. $\frac{2\pi}{3}$ b. $\frac{7\pi}{6}$ c. 2.3

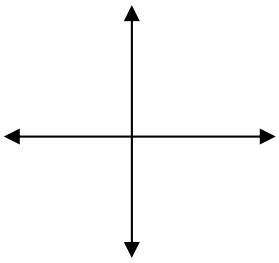
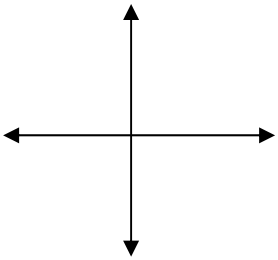
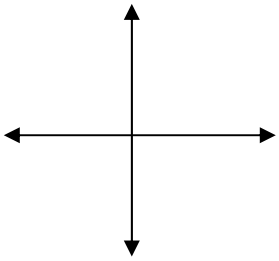
Converting Radians to Degrees	**Converting Degrees to Radians**

Assignment p. 175 # 1 – 13, 15, 17 – 20, C3, C5 Quiz Next Day!

Angles in Standard Position Reference Angle

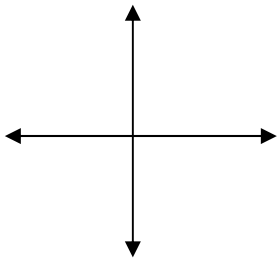
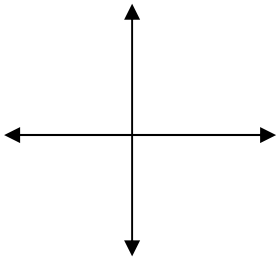
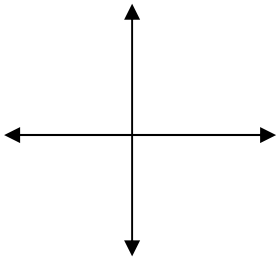
Example Draw each angle in standard position. Find the reference angle. Determine one positive and one negative co-terminal.

a. $30°$ b. $315°$ c. $\frac{7\pi}{4}$

Example Determine one positive and one negative co-terminal angle of the following angles. Illustrate each angle with a diagram. Write a general formula for coterminal angles in each case.

a. $\theta = 740°$ b. $\theta = 1$ c. $\theta = -\frac{\pi}{2}$

Example A circle has radius 8.2 cm. Calculate the length of an arc of this circle subtended by 3.5 radians. Express the length to the nearest tenth of a centimetre.