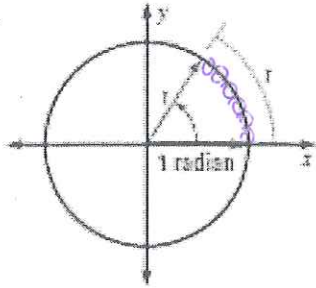


Learning Target(s): I am able to convert from degrees to radians and radians to degrees.
I know the special radian angles on the unit circle.

13.2 Notes: Define General Angles and Use Radian Measure Day 2

radian –



in a circle with radius r centered at the origin, one radian is the measure of an angle in standard position whose terminal side intercepts an arc of length r . Since the circumference of a circle is $2\pi r$ there are 2π radians in a full circle.

Converting between degrees and radians.

Degrees \rightarrow Radians

$\bullet \frac{\pi \text{ radians}}{180^\circ}$

Radians \rightarrow Degrees

$\bullet \frac{180^\circ}{\pi \text{ radians}}$

Ex. 3

Convert the following.

a. 315°

$315^\circ \cdot \frac{\pi \text{ radians}}{180^\circ} = \frac{7\pi}{4} \text{ radians}$

b.

$\frac{\pi}{6} \cdot \frac{180^\circ}{\pi} = 30^\circ$

Try it!

3. Convert the following.

a. $125^\circ \cdot \frac{\pi}{180^\circ}$

$\frac{25\pi}{36}$

b. $75^\circ \cdot \frac{\pi}{180} = \frac{5\pi}{12}$

$\frac{5\pi}{12}$

c. $135^\circ \cdot \frac{\pi}{180}$

$\frac{3\pi}{4}$

d. $-50^\circ \cdot \frac{\pi}{180}$

$-\frac{5\pi}{18}$

a. $-\frac{\pi}{12} \cdot \frac{180}{\pi} =$

-15°

b. $\frac{5\pi}{4} \cdot \frac{180}{\pi} =$

225°

c. $\frac{\pi}{10} \cdot \frac{180}{\pi} =$

18°

d. $\frac{7\pi}{5} \cdot \frac{180}{\pi} =$

252°

Find the radians for the special angles.

