

## Changing Radians to Degrees to Radians:

A. In number sense it is imperative to understand how to convert from radians to degrees and vice versa.

1. Convert Radians to Degrees:

$$\text{radians} \times \frac{180}{\pi}$$

2. Convert Degrees to Radians:

$$\text{degrees} \times \frac{\pi}{180}$$

B. Examples:

Ex [1]  $225^\circ = \underline{\hspace{2cm}}$  (radians)

- To convert to radians you should multiply by  $\pi/180$ .
- You should only focus on  $225/180$  and write  $\pi$  after the fraction is reduced.
- $225/180 = 5/4$ .
- The answer is  $5\pi/4$ .

Ex [2]  $5\pi/9 = \underline{\hspace{2cm}}$  (degrees)

- To convert to radians you should multiply by  $180/\pi$ .
- Since the  $\pi$ 's cancel each other, we should only focus on  $5/9 \times 180$ .
- $5/9 \times 180 = 5 \times 20 = 100$ .
- The answer is 100.