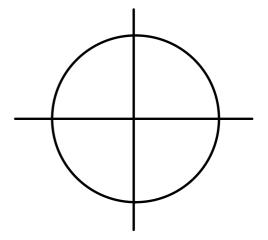
## Converting Angle Measure

A radian is just another way to measure an angle. A radian is associated with the radius length of a circle.

click dot and scroll down for

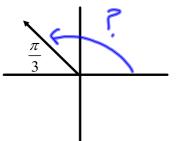
Radian Animation

A circle has 360 degrees or  $2\pi$  radians, which is approximately 6.28 radians.



**Examples:** Find the measure of each angle.

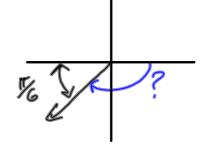
a)



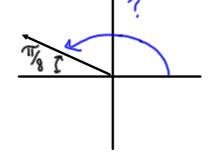
b)



c)



d)



## Converting Angle Measures

degrees to radians

$$r = d \cdot \frac{\pi}{180^{\circ}}$$

radians to degrees

$$d = r \cdot \frac{180^{\circ}}{\pi}$$

We always leave  $\pi$  as  $\pi$  when converting ... do NOT evaluate for  $\pi$  !

## Examples:

a) Convert 30° to radians.

b) Convert  $\frac{4\pi}{9}$  to degrees.