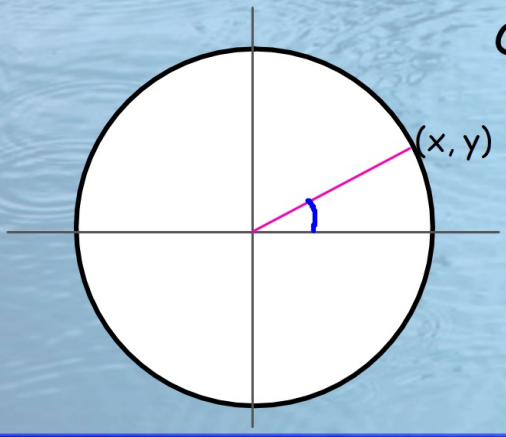
Monday, September 9

If you know the radius of a circle and an angle that a ray makes with the x-axis, describe how you can find the x- and y-coordinates of the point on the circle.



$r\cos\theta = x$

$r\sin\theta = y$

September 9

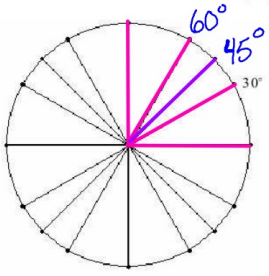
Students will verbally explain how to find the coordinates of specific points around the unit circle

(using the words: angle, radius, trig functions...)

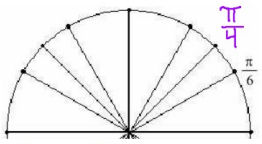
Unit Circle

- Circle with a radius of one

The Unit Circle



Label Each Point in DEGREES

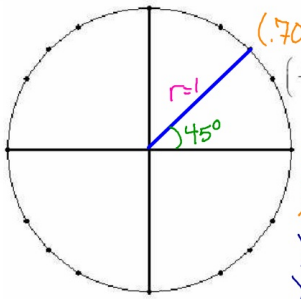


$\frac{\pi}{180} = \frac{x}{45^\circ}$

$\frac{45\pi}{180} = \frac{180x}{180}$

$\frac{45\pi}{180} = \frac{\pi}{4} = x$

Label Each Point in RADIAN MEASURE



(.707, .707)

$\left(\frac{\sqrt{3}}{2}, \frac{1}{2}\right)$

$x = r\cos\theta$
$x = 1 \cdot \cos(45)$
$x = .707$
$y = r\sin\theta$
$y = 1 \cdot \sin(45)$
$y = .707$

Label Each Point in (X , Y) Coordinates