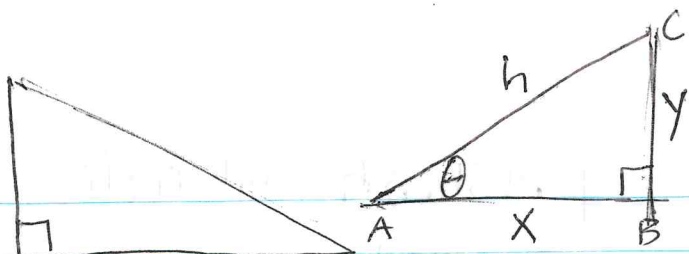


Warm-up:



Definitions:

If  $h=1$

$$\sin \theta = \frac{y}{h} \quad \sin \theta = y$$

$$\cos \theta = \frac{x}{h} \quad \cos \theta = x$$

$$\tan \theta = \frac{y}{x} \quad \tan \theta = \frac{y}{x}$$

Give the reciprocal of the definitions

$$\frac{1}{\sin \theta} = \frac{1}{y}$$

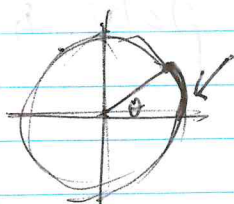
$$\frac{1}{\cos \theta} = \frac{1}{x}$$

$$\frac{1}{\tan \theta} = \frac{x}{y}$$

In a unit circle, the radius is 1.

If  $\theta = 30^\circ$ , what is its radian measure?

$$\frac{\pi}{6}$$



What is the arc length (see sketch) of the arc for the  $30^\circ$  rotation?

$$1 \cdot \frac{\pi}{6} = \frac{\pi}{6}$$

For any unit circle, arc length (=) radians.

Set calculator mode to degrees.

(round to thousandths)

Find $\cos 60^\circ$	$.5$	and $\sin 60^\circ$	$.866$	$\cos 240^\circ$	$= -.5$
$\cos 120^\circ$	$-.5$	and $\sin 120^\circ$	$.866$	$\sin 240^\circ$	$= -.866$
$\cos 30^\circ$	$.866$	and $\sin 30^\circ$	$.5$		
$\cos 150^\circ$	$-.866$	and $\sin 150^\circ$	$.5$		

Set calculator on radian mode.

Same as above

Do the previous problems as notice?

$\cos \frac{\pi}{3}$	$\sin \frac{\pi}{3}$
$\cos \frac{2\pi}{3}$	$\sin \frac{2\pi}{3}$
$\cos \frac{\pi}{4}$	$\sin \frac{\pi}{4}$
$\cos \frac{5\pi}{6}$	$\sin \frac{5\pi}{6}$

In calculator, find  $\frac{\sqrt{3}}{2}$  as a decimal  $\approx .866$   
 $\frac{\sqrt{2}}{2}$  as a decimal  $\approx .71$