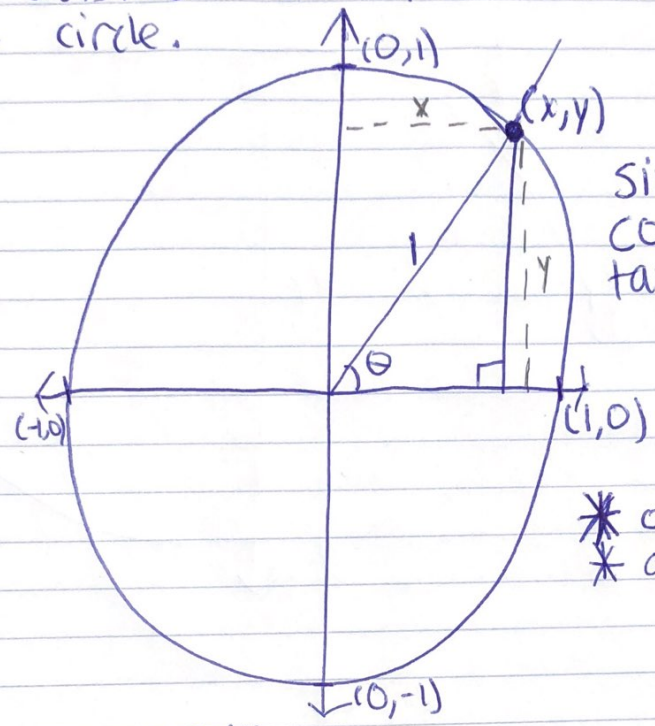
any line from the center of a circle to the outside of the circle equals the radius of the circle.



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

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

$\tan(\theta) = \frac{y}{x}$

* opposite to the angle
* adjacent to the angle

soh → $\sin = \frac{\text{opposite}}{\text{hypotenuse}}$

cah → $\cos = \frac{\text{adjacent}}{\text{hypotenuse}}$

toa → $\tan = \frac{\text{opposite}}{\text{adjacent}}$

radius: 

diameter: