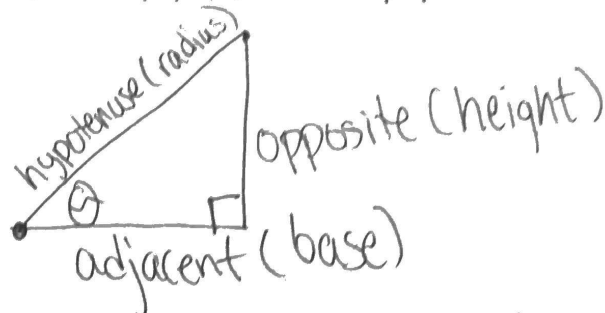


# How do I graph Sine and Cosine Graphs?

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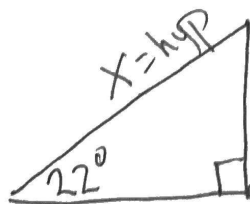
## SOH-CAH-TOA



$$\sin \theta = \frac{\text{opposite}}{\text{hypotenuse}}$$

$$\cos \theta = \frac{\text{adjacent}}{\text{hypotenuse}}$$

$$\tan \theta = \frac{\text{opposite}}{\text{adjacent}}$$

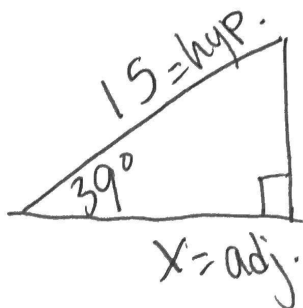


10 = opp

$$x \cdot \frac{\sin 22}{1} = \frac{10}{x} \cdot x$$

$$\frac{x \sin 22}{\sin 22} = \frac{10}{\sin 22}$$

$$x = 26.69$$

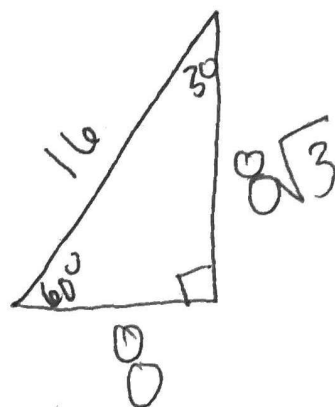
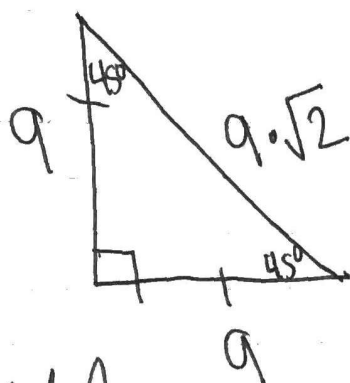
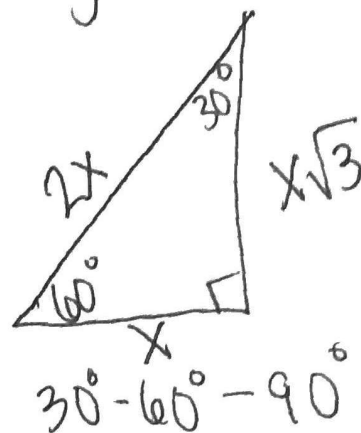
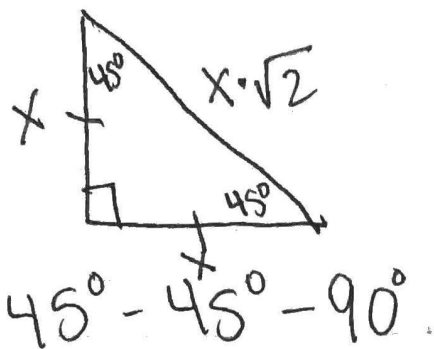


x = adj.

$$15 \cdot \cos 39 = \frac{x}{15} \cdot 15$$

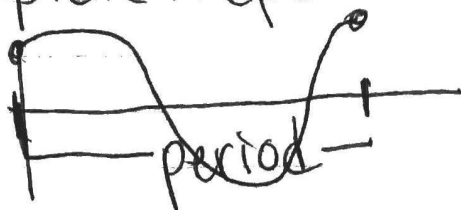
$$11.65 = x$$

# Special Right Triangles



~~Period~~

Period: The horizontal length of 1 complete repetition of the pattern



Midline: cuts my graph in half

Amplitude: distance from the midline to the max or min of the graph.