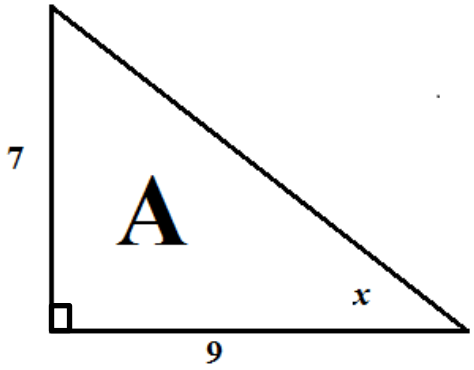
Math 10 GMF **Trigonometry Example** **Name:**

Sine	Cosine	Tangent
$sin\theta = \frac{opposite}{hyptonuse}$	$cos\theta = \frac{adjacent}{hyptonuse}$	$tan\theta = \frac{opposite}{adjacent}$

1. Find the tangent ratio of the angle marked x on triangle A

$$\tan x = \frac{o}{a} = \frac{7}{9} \quad \text{or} \quad 0.7778$$



2. Find the angle marked x on triangle A.

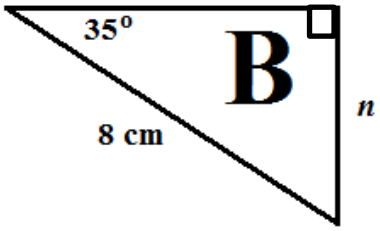
$$\tan \theta = \frac{o}{a}$$

$$\tan x = \frac{7}{9} = 0.7778 \quad \text{(use inverse tan)}$$

$$\tan^{-1}(0.778)$$

$$x = 37.9^{o}$$

3. Find the length of side n of triangle B.



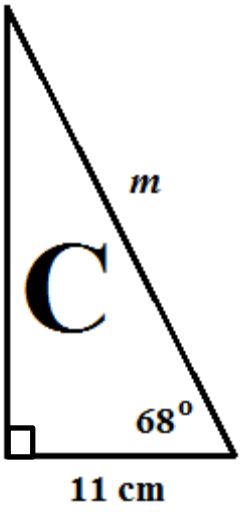
$$\sin \theta = \frac{o}{h}$$

$$\sin 35^{o} = \frac{n}{8}$$

$$n = 8 (\sin 35^{o})$$

$$n = 4.6 \text{ cm}$$

4. Find the length of side m of triangle C



$$\cos \theta = \frac{a}{h}$$

$$\cos 68^{o} = \frac{11}{m}$$

$$m = \frac{11}{\cos 68^{o}}$$

$$m = 29.4 \text{ cm}$$

And do not forget: **soh-cah-toa**