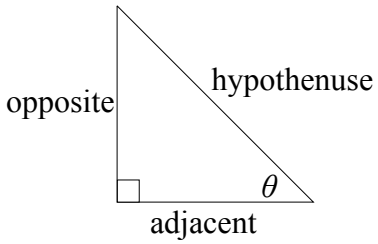
MCR3U Review of Grade 10 Trigonometry April 26, 2011

In right-angle triangles, we can use trigonometric ratios to calculate the lengths of sides or the magnitude of angles.



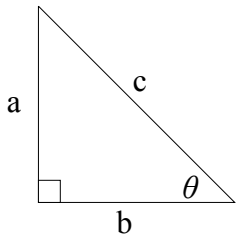
$\sin\theta =$ _____

$\cos\theta =$ _____

$\tan\theta =$ _____ $= \dfrac{\sin\theta}{\cos\theta}$

Suppose θ = 30º. What is the length of the hypothenuse if:

a = 2 cm?



a = 5 cm?

Notice that the **ratio** of $\dfrac{opposite}{adjacent}$ is constant (in this case, it is)

This is because

1. Using your calculator, give the approximate value for the following trigonometric ratios:

a) $\sin 30^\circ =$ b) $\cos 60^\circ =$ c) $\tan 45^\circ =$

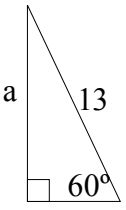
d) $\sin 865^\circ =$ e) $\cos 210^\circ =$ f) $\tan 173^\circ =$

2. Find θ that satisfies each of the following

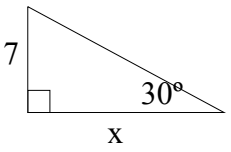
a) $\sin\theta = 0.3425$

b) $\sin\theta = 0.9$

3.



a =

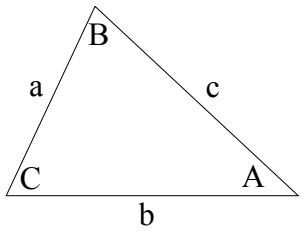


x =

We can also use trigonometric ratios to help us solve triangle that *don't* have right angles in them...

Sine Law

Cosine Law



Solve the following triangles completely: