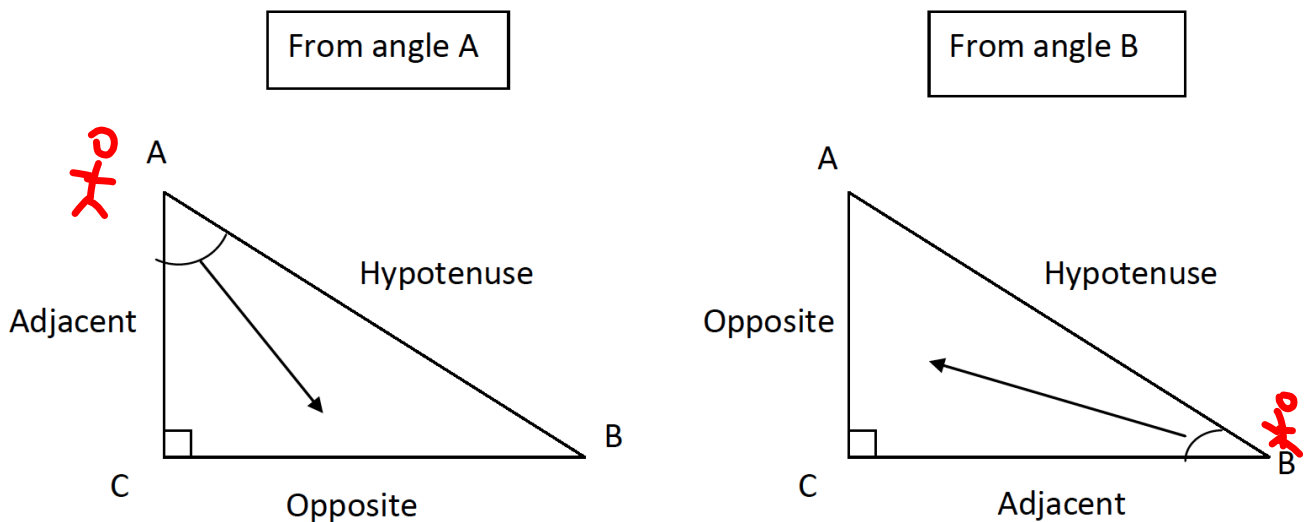


Right Angled Trigonometry

1) Trigonometric Ratios

Depending on where you start from, you must name the other two sides.



We will use the following abbreviations for naming the sides:

Hypotenuse - H

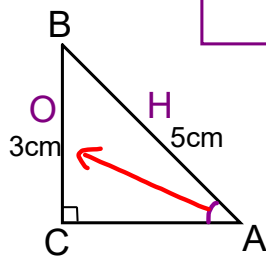
Adjacent - A

Opposite - O

There are three trigonometric ratios in right angled trig - Sine, Cosine and Tangent.

1) Sine

$$\sin A = \frac{\text{opposite}}{\text{hypotenuse}} = \frac{O}{H}$$



Memory Aid: SOH

Sine

Opposite (over)

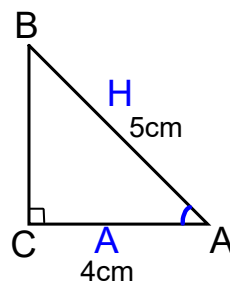
Hypotenuse

In this triangle:

$$\sin A = \frac{3}{5}$$

2) Cosine

$$\cos A = \frac{\text{adjacent}}{\text{hypotenuse}} = \frac{A}{H}$$



Memory Aid: CAH

Cosine

Adjacent (over)

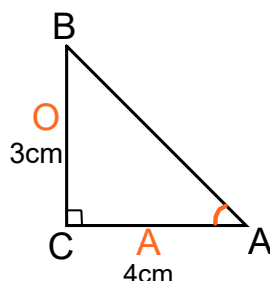
Hypotenuse

In this triangle:

$$\cos A = \frac{4}{5}$$

3) Tangent

$$\tan A = \frac{\text{opposite}}{\text{adjacent}} = \frac{O}{A}$$



Memory Aid: TOA

Tangent

Opposite (over)

Adjacent

In this triangle:

$$\tan A = \frac{3}{4}$$

The key to this section is **SOH**, **CAH**, **TOA**!!