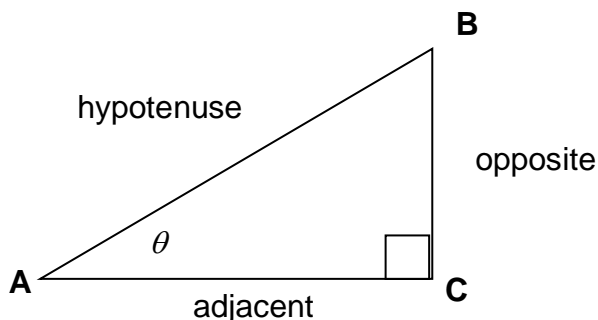


## Trigonometry Terms and Definitions

**Trigonometry** (*trigon* – triangle; *metron* – measure) is used to find unknown side lengths and angles in triangles.

Let  $\theta$  (pronounced 'theta') be an angle in the right triangle ABC.



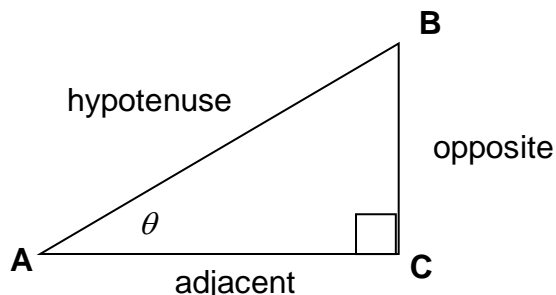
We name the sides as follows:

**Hypotenuse:** The side opposite the right angle. It is the longest side.

**Adjacent side:** The side nearest  $\theta$  ('adjacent' mean 'next to')

**Opposite side:** The side furthest from  $\theta$ .

## Trigonometry Terms and Definitions



Three ratios are important:

$$\text{sine } \theta = \frac{\text{opposite side}}{\text{hypotenuse}}$$

or

$$\sin \theta = \frac{\text{opp}}{\text{hyp}}$$

$$\text{cosine } \theta = \frac{\text{adjacent side}}{\text{hypotenuse}}$$

or

$$\cos \theta = \frac{\text{adj}}{\text{hyp}}$$

$$\text{tangent } \theta = \frac{\text{opposite side}}{\text{adjacent side}}$$

or

$$\tan \theta = \frac{\text{opp}}{\text{adj}}$$

To remember these, think

**SOH-CAH-TOA**

which stands for

$$\text{Sin} = \text{Opp/Hyp} \quad \text{Cos} = \text{Adj/Hyp}, \quad \text{Tan} = \text{Opp/Adj}$$