

MASTER COACHING

NAME

# TRIGONOMETRY 1

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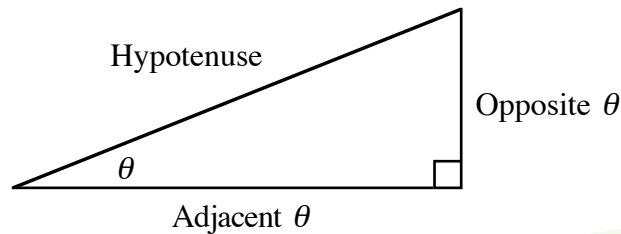
Edition 1



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# Trigonometry



**The basic trigonometry ratios are :**

$$\frac{\text{Opposite } \theta}{\text{Hypotenuse}} = \sin \theta$$

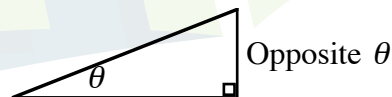
$$\frac{\text{Adjacent } \theta}{\text{Hypotenuse}} = \cos \theta$$

$$\frac{\text{Opposite } \theta}{\text{Adjacent } \theta} = \tan \theta$$

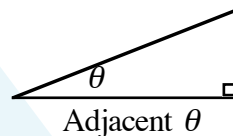
note that  $\tan \theta$  is the ratio that doesn't use the hypotenuse

**Thus if the hypotenuse is the given ( or known side ) then :**

$$\text{Opposite } \theta = \text{Hypotenuse} \times \sin \theta$$



$$\text{Adjacent } \theta = \text{Hypotenuse} \times \cos \theta$$



**Conversely to find the hypotenuse :**

$$\text{Hypotenuse} = \text{Opposite } \theta \div \sin \theta$$

$$\text{Hypotenuse} = \text{Adjacent } \theta \div \cos \theta$$

**If the hypotenuse is not involved then use the tangent ratio.**

$$\text{Opposite } \theta = \text{Adjacent } \theta \times \tan \theta$$

