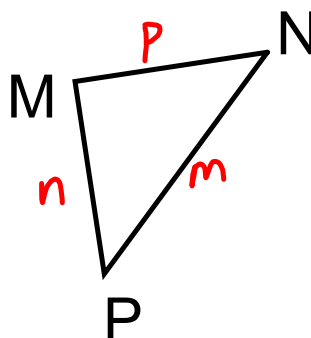
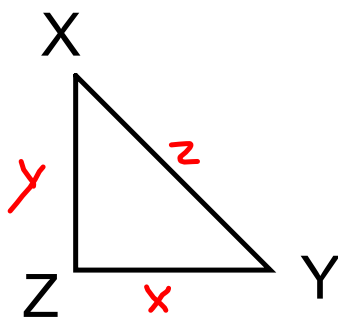


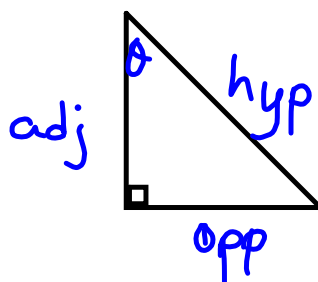
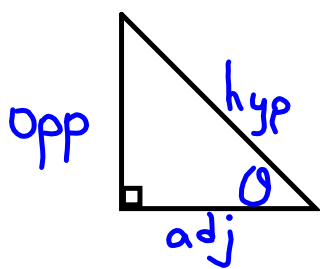
## Labelling Triangles



Sides (lowercase letters) are across from their corresponding angles (uppercase letters).

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## Trigonometry



opposite - opp

adjacent - adj

hypotenuse - hyp

## Trigonometric Ratios

$$\text{Sine } \theta = \frac{\text{opposite}}{\text{hypotenuse}}$$

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

$$\text{Cosine } \theta = \frac{\text{adjacent}}{\text{hypotenuse}}$$

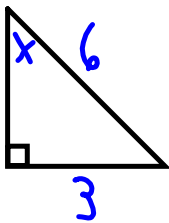
$$\text{Cos } \theta = \frac{\text{adj}}{\text{hyp}}$$

$$\text{Tangent } \theta = \frac{\text{opposite}}{\text{adjacent}}$$

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

Examples:

1.



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

$$\text{Sin } x = \frac{3}{6}$$

$$x = \text{Sin}^{-1}\left(\frac{3}{6}\right) \\ = 30^\circ$$

2.  $\text{Cos } 45^\circ = 0.7071$

3.  $\text{Sin } 63^\circ = 0.8910$

4.  $\text{tan } 15^\circ = 0.2679$

5.  $\text{Cos } x = 0.5698$   
 $x = \text{Cos}^{-1} 0.5698$   
 $= 55^\circ$

6.  $\text{Sin } P = 0.8921$

$$P = \text{Sin}^{-1} 0.8921 \\ = 63^\circ$$

