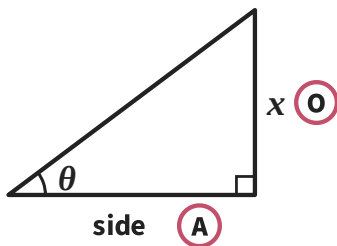


Trigonometry: finding a side

Use it when a right angled triangle has an angle and a side, and you want another side.

1 Label

Label only the two sides you use, from the angle.



2 Pick

Pick SOH, CAH or TOA.

O and H → SOH

A and H → CAH

O and A → TOA

the two letters you labelled

3 Write

Write the ratio with the numbers in.

$$\boxed{\sin, \cos \text{ or } \tan} \theta = \frac{\boxed{\text{side}}}{\boxed{\text{side}}}$$

the angle, then the two sides

4 Rearrange

Make the unknown the subject of the formula.

$$\boxed{\sin, \cos \text{ or } \tan} \theta = \frac{x}{\text{side}} \rightarrow x = \text{side} \times \boxed{\sin, \cos \text{ or } \tan} \theta$$

$$\boxed{\sin, \cos \text{ or } \tan} \theta = \frac{\text{side}}{x} \rightarrow x = \frac{\text{side}}{\boxed{\sin, \cos \text{ or } \tan} \theta}$$

the unknown on its own

5 Calculate

Calculate and round as asked.

$$x = \boxed{\text{answer}}$$

check: the hypotenuse is the longest side

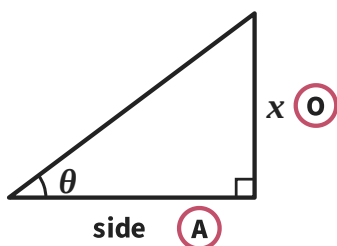
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