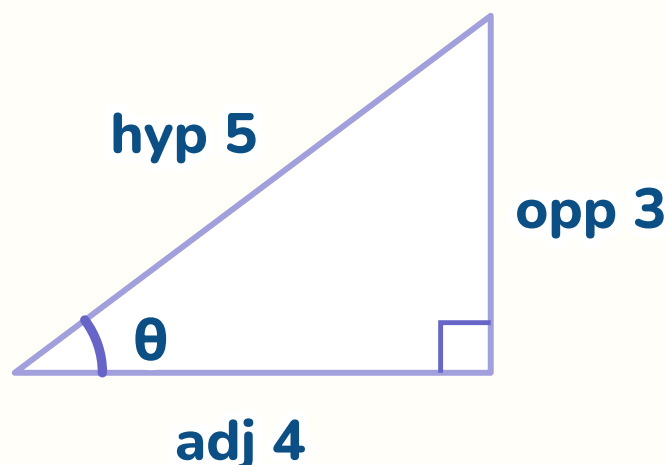
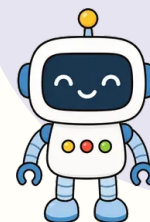


Trig ratios · SOH CAH TOA



SOH · CAH · TOA

Each ratio is one pair of the triangle's sides, divided — and the three letters say which pair. Sine is Opposite over Hypotenuse, Cosine is Adjacent over Hypotenuse, Tangent is Opposite over Adjacent.

Sine · SOH

$$\sin \theta = \frac{\text{opp}}{\text{hyp}}$$
$$\frac{3}{5} = 0.6$$

Cosine · CAH

$$\cos \theta = \frac{\text{adj}}{\text{hyp}}$$
$$\frac{4}{5} = 0.8$$

Tangent · TOA

$$\tan \theta = \frac{\text{opp}}{\text{adj}}$$
$$\frac{3}{4} = 0.75$$

The hypotenuse is the longest side, always across from the right angle. Which side is “opposite” and which is “adjacent” depends on the angle θ you work from.