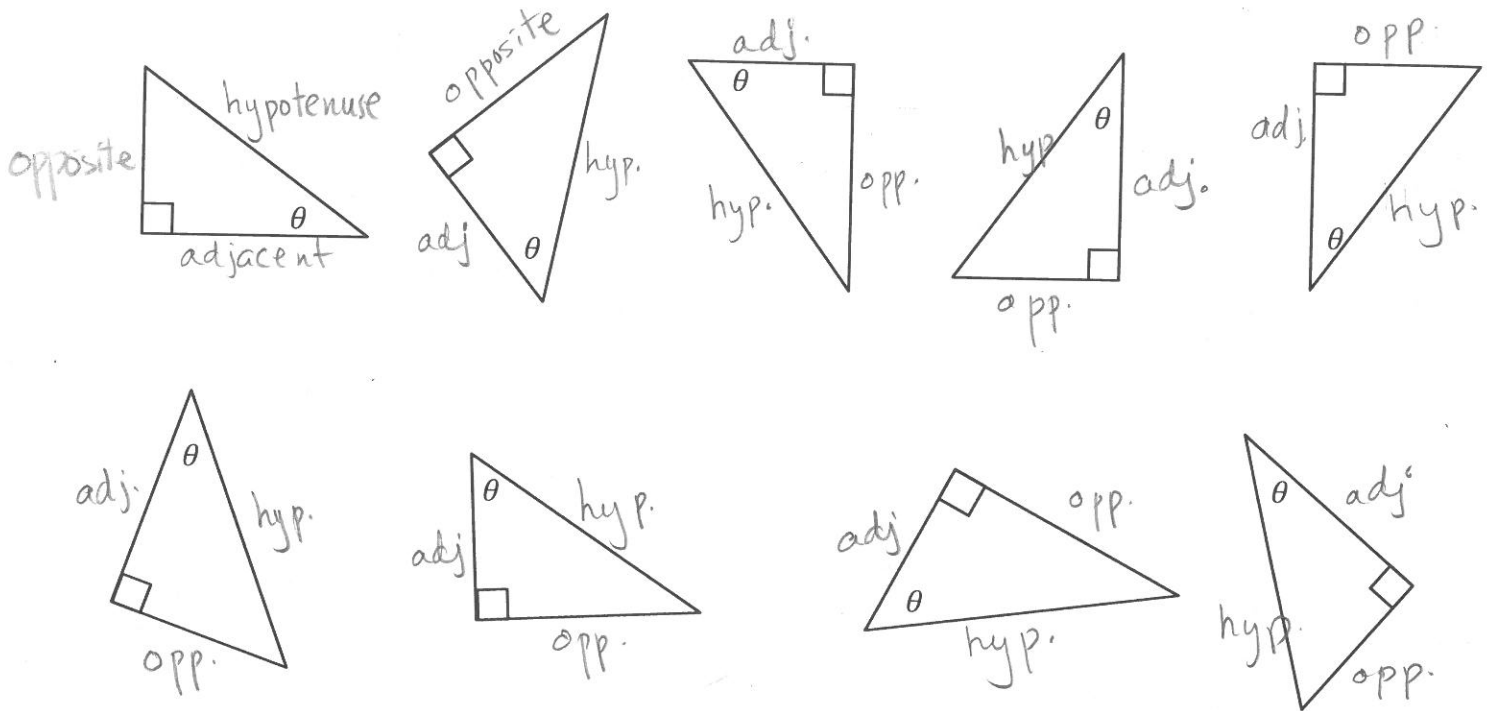


opp. adj. hyp.  
 Label the sides of the triangles shown below as opposite, adjacent, and hypotenuse.



Now that we are familiar with the vocabulary we return to our formulas:

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

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

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

These three formulas are used when solving right triangle problems. Note that each formula has a different combination of sides forming the ratio:

$\sin \theta = \frac{\text{opp}}{\text{hyp}}$  The sine of an angle is equal to the length of the opposite side over the length of the hypotenuse.

$\cos \theta = \frac{\text{adj}}{\text{hyp}}$  The cosine of an angle is the length of the adjacent side over the length of the hypotenuse.

$\tan \theta = \frac{\text{opp}}{\text{adj}}$  The tangent of an angle is the length of the opposite side over the length of the adjacent side.

Many people use "SOH CAH TOA" to remember the correct combination (and order) of sides for each formula.