Similar Triangles and Vertical Angles: For 2 triangles to be similar, they must have equal angle measures and proportionate sides. Vertical angles are the opposite angles formed from 2 intersecting lines. Vertical angles are congruent.

Ex. Given the 2 triangles and angle measures, determine if the triangles are similar.

NO

YES

You try: Are the triangles similar?



Ex. Find the missing angles given the figures. Reminder: if two angles make up a linear pair, the angles are supplementary (sum is . The symbol means similar.



Given:

Find:

 NO

You try:

Given:

Find:

Pythagorean Theorem: In a right triangle with legs *a* and *b* and hypotenuse *c*,

Ex. Find the missing side.

 Given a right triangle where and , find b

7

4

You try: Find the missing side.

6

2

5

8

Given a right triangle with and , find a.