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**LEARNING OBJECTIVE:** We will prove the Pythagorean theorem using similar triangles. (G8M7L9)

### **CONCEPT DEVELOPMENT:**

We can use similar triangles to provide another proof of the Pythagorean Theorem:



G8M7L9: More proofs of the Pythagorean Theorem

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# Another Proof using Similar Triangles and Areas



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# **GUIDED PRACTICE:**

**Steps for Proving the Pythagorean Theorem Using Similar Triangles** 1. Draw a line from the right angle perpendicular to the hypotenuse. This will create three similar triangles.

2. Label, reorient, and draw the three similar triangles.

3. Set up a series of proportions to show that  $a^2 + b^2 = c^2$  using the steps demonstrated on the first page of the notes.



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Mr. Rogove

Date:\_\_\_\_\_

#### **INDEPENDENT PRACTICE:**

No independent practice...

## **ACTIVATING PRIOR KNOWLEDGE:**

We know the Pythagorean Theorem is  $a^2 + b^2 = c^2$  AND we know one way to prove it.



### NOTES:

Maps to Grade 8, Lesson 15, Module 7.

HW could be lesson 15 problem set minus probs 1-2.