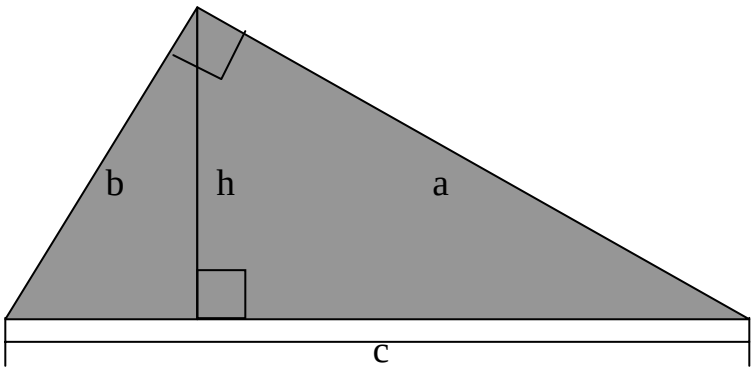
Geometric Mean poster: The poster helps teach the concept of Geometric Mean through similar triangles. The detachable triangles make it easier to understand.

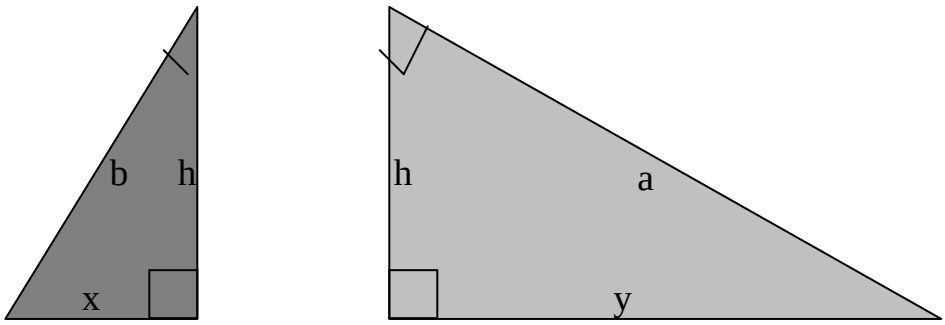
Materials needed: 1 white poster board, word strips*, 3 other bright colors of poster board, Velcro squares (with sticky backs), construction paper to mount word strips (optional, but it looks nice).
*Use the word strips however you would like. The first one is the definition; the others refer to similar triangles and proportions. You may want to change the variables to correspond to your textbook, etc. I did not include the theorems, as you might want to do.

Directions:

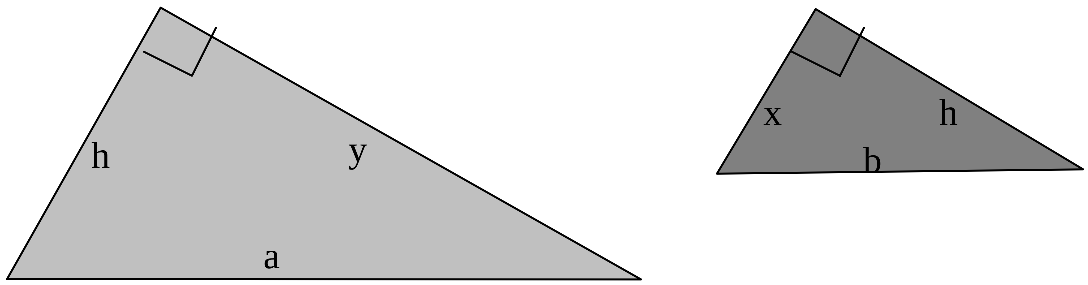
1. Before gluing anything down, decide where you want the word strips to be, and about how big your triangles will be. Leave extra room to move the triangles around. One sample poster layout is at the end of these directions.
2. Create your largest right triangle from one color of poster board. For simplicity's sake, I used a 3-4-5 triangle (21 cm- 28 cm- 35 cm fits the poster well). Label the triangle as shown, with the label for side c written on the white poster, and the other labels on the triangle. (You may want to wait on labeling c)



3. Make two more triangles (congruent to the two pieces of the original) from the other two poster colors. Label them as shown (exactly like the large triangle, except they both have right angle symbols). Also label the parts of the right angle symbol at the top.



4. Label the **back** of the two smaller triangles as shown, so that these labels will show when all three triangles are facing the same way. These are the same labels as the front of the triangles- don't get them mixed up! Seeing the three triangles like this helps the students recognize the corresponding parts, and set up proportions.



5. Glue the word strips and the large triangle on the poster, leaving room for the other two triangles to be on the poster if they are facing the same way as the large triangle. Make sure the large triangle is labeled. Laminate the poster and the other two triangles.
6. Attach 4 fuzzy squares of Velcro to the poster- one on each part of the large triangle, and two on the white poster to attach the smaller triangles to. Attach the scratchy squares of Velcro to BOTH sides of the smaller triangles. Now you can have the smaller triangles cover the largest one, or you can separate them to show the relationships of the similar triangles, which shows the proportions of the Geometric Mean. My poster layout looks like this: