


9. Look for a relationship for the information recorded about the area in the last three columns.
10. Add one more copy of your original right triangle to the poster and call the legs ***a*** and ***b*** and the hypotenuse ***c*** instead of the given measurements. Create three similar isosceles triangle whose base equals one of the sides of the triangle and whose height to base is 2 to 1. The isosceles triangle at the right is representative of the triangle you will make. Glue the three triangles adjacent to the right triangle as you did in steps 3-7. Find the area of the three isosceles triangles using the lengths of the base as ***a***, ***b***, and ***c***.
11. Write a paragraph describing what you observed from all the triangles and similar polygons on your poster. Attach your poster to the wall for other groups to look at.
12. Follow up Activities: After each poster is completed, review the various posters to see if the other groups made the same conclusion as your group about the three areas of the similar polygons.
 - A. Which similar polygon has the largest area? How can you determine the area of this similar polygon? Try taking the two smaller squares from the legs and filling the area of the largest square. You can cut them apart to see if they fit.
 - B. In how many ways can you find the area of the largest similar polygon?
 - C. How can you determine the length of the hypotenuse from the polygon you built on the hypotenuse?
 - D. Suppose you created another triangle where you knew the length of the hypotenuse and the length of one leg. How would you find the length of the other leg?

Each group of students is to work with one triangle.

Length of Leg 1 (shorter leg)	Length of Leg 2 (longer leg)
3	4
6	8
5	12
8	15
7	24
9	12
10	24
12	16
15	20
18	24