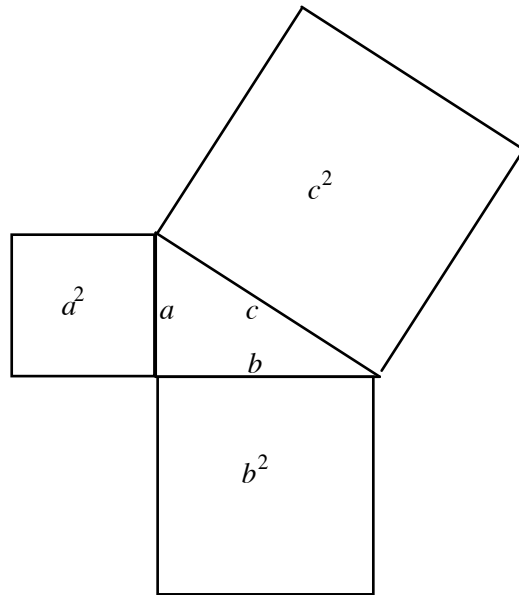
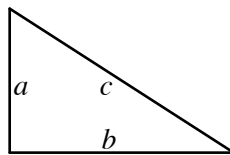


Refiguring Pythagoras

The Theorem of Pythagoras says that the area of the square built on the hypotenuse c of a right triangle is equal to the combined area of the squares built on the sides a and b of the triangle. That is, $a^2 + b^2 = c^2$.

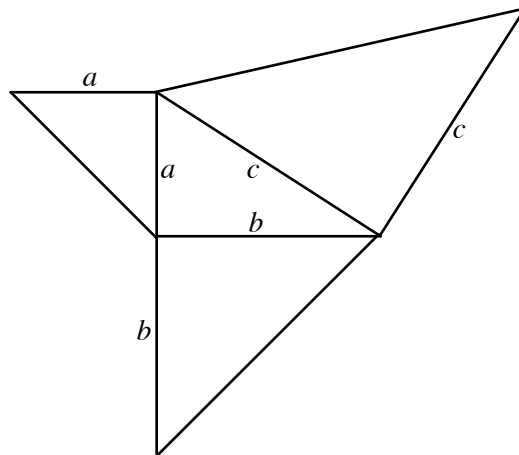


1. Now, instead of squares, build semicircles on each side of the original triangle.



Compare the area of the semicircle built on the hypotenuse to the combined area of the other two semicircles.

2. In this diagram, an isosceles right triangle is built on each side of the original triangle.



Compare the area of the triangle built on the hypotenuse to the combined area of the other two triangles.

3. Based on what you have just done, what can you say about any other similar set of figures constructed on the hypotenuse and legs of a right triangle?