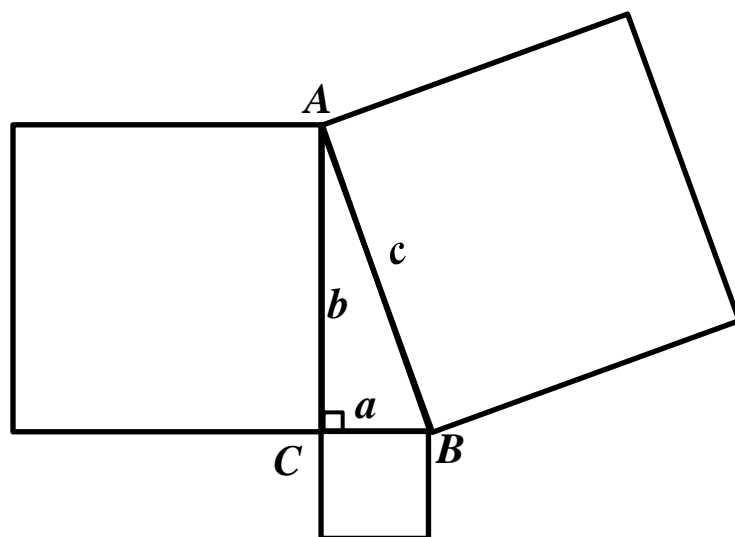


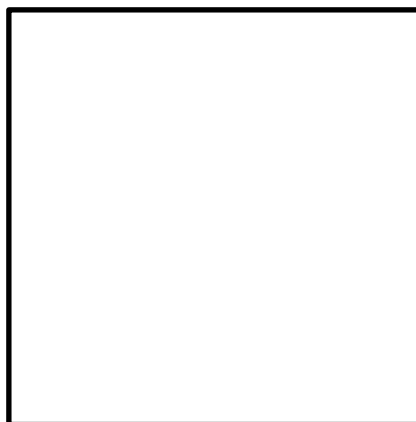
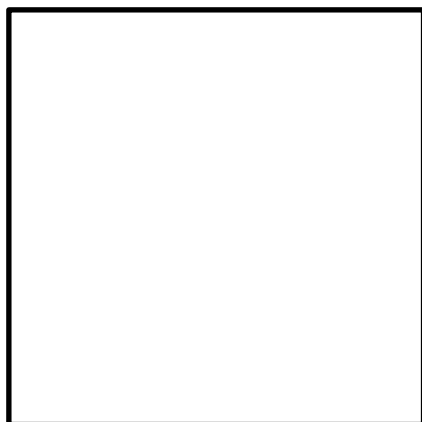


Informal Proof of the Pythagorean Theorem (page 1)

1. Right triangle ABC is shown to the right, with corresponding squares attached. Color the right triangle *yellow*. Label the sides of each square. Color the smallest square (with side lengths a) *blue*. The largest square (with side lengths c) should be *red*. Shade the remaining square *green*. Label each square with its area. Likewise color and label the triangles and squares on page 2.



2. *Cut out* all the pieces on page 2.



3. How do the areas of the two squares (to the left) compare?

4. Separate out 4 of the right triangles and the two smaller squares (squares with side lengths of a and b). How do the legs of the triangle compare to the sides of the two squares?

5. Take these 6 pieces and arrange them in a manner to completely cover the square above, on the left.

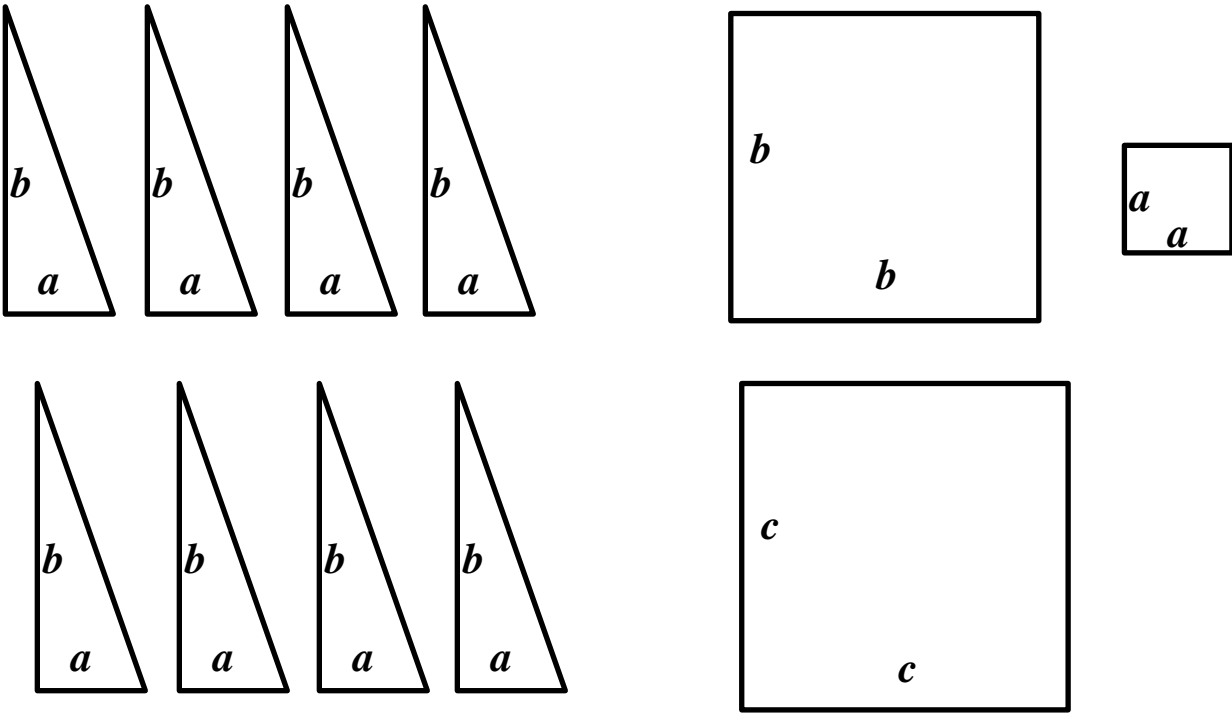
6. Take the remaining 4 right triangles and the remaining square (with side length c) and arrange them in a manner to completely cover the other square (above). How does the hypotenuse compare to the side of the square?

7. Write an equation that represents the areas shown in the squares. Show how the above diagram informally proves the Pythagorean Theorem: $a^2 + b^2 = c^2$.

8. To see a short video of this visual “proof” of the Pythagorean Theorem:

<https://www.youtube.com/watch?v=pVo6szYE13Y>

Informal Proof of the Pythagorean Theorem (page 2)



Informal Proof of the Pythagorean Theorem (page 2)

