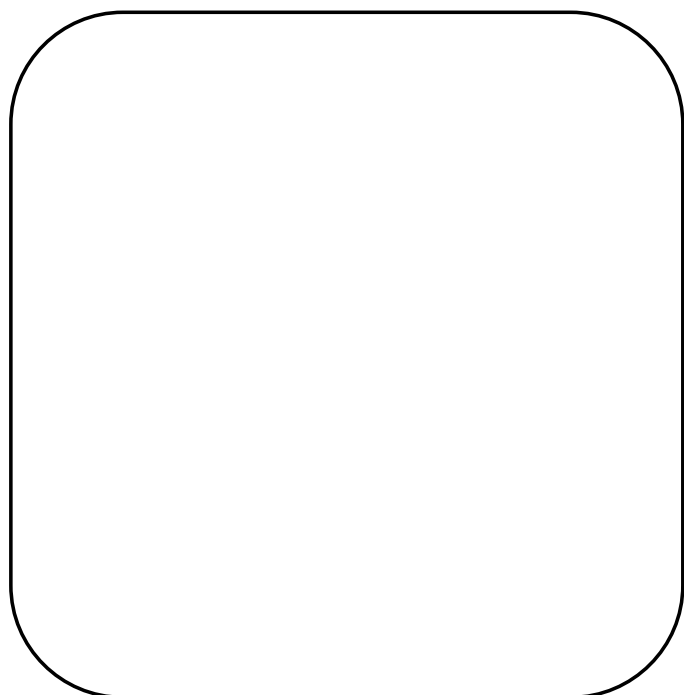


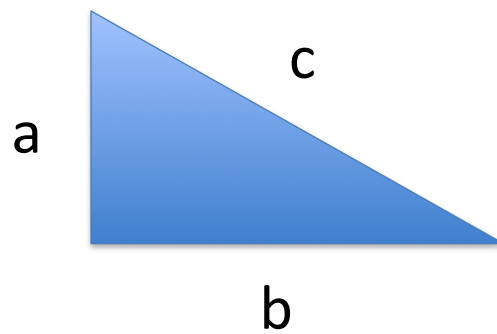
Proving Pythagoras' Theorem

and that ancient Greeks
were pretty good
at mathematics

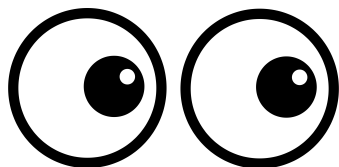
Who was Pythagoras?



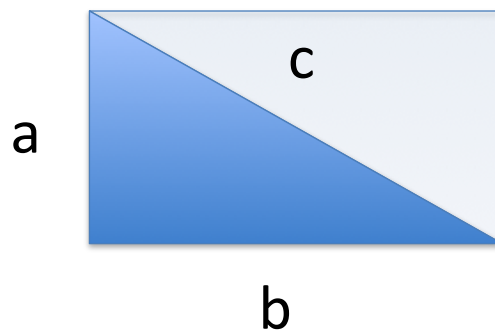
We start with a triangle of a particular type.



Where might you see right angled triangles in use?

A large, empty rounded rectangular box with a black outline, intended for the user to write their answer to the question.

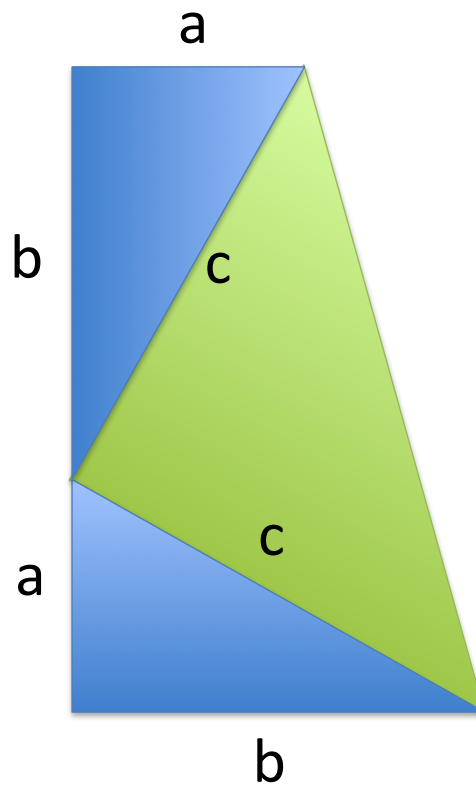
What is the area of this rectangle?



What is the formula for the area of a square?

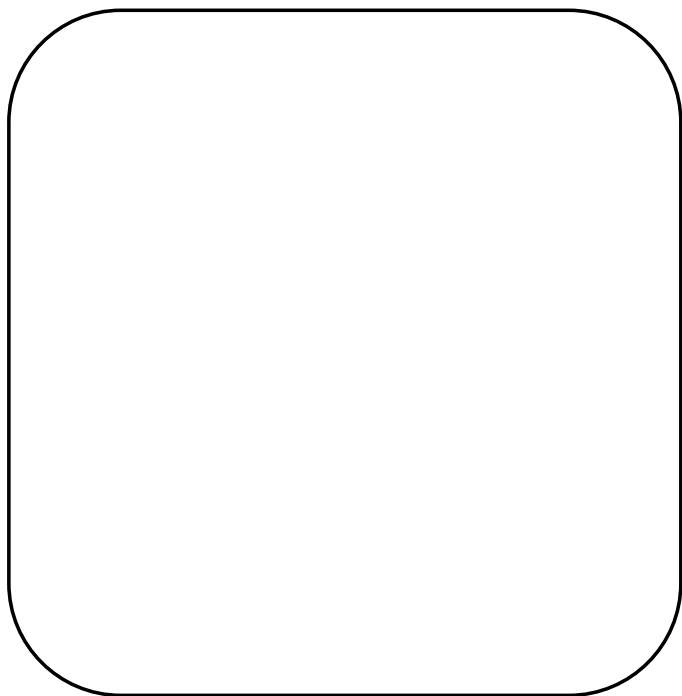
What is the formula for the area of a rectangle?

Split that rectangle so that we can have two of the original triangles and a new right angled triangle

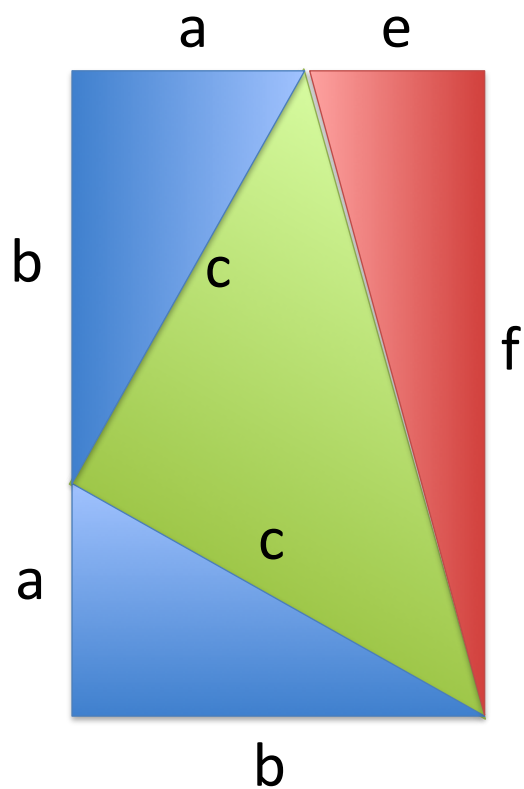


How many types of quadrilateral can you name?

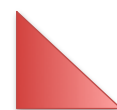
4



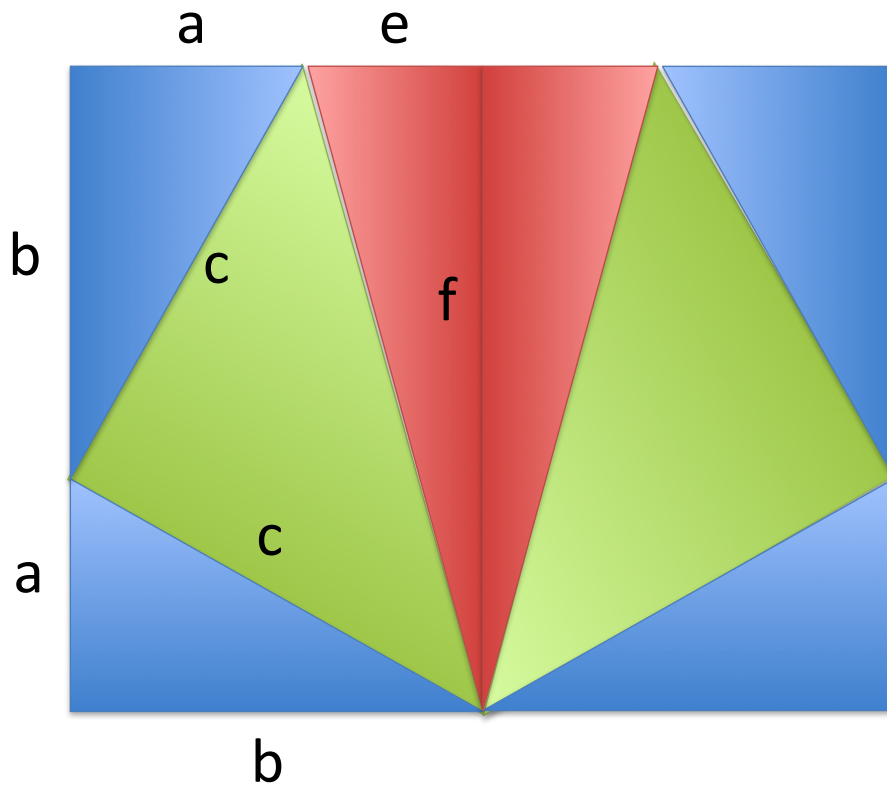
Fill in the gap with another right angled triangle to make another rectangle.



Can you work out the area of each triangle?

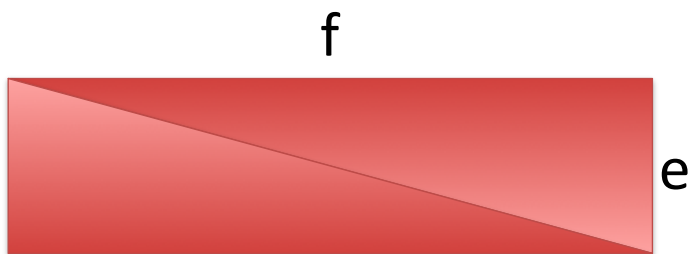
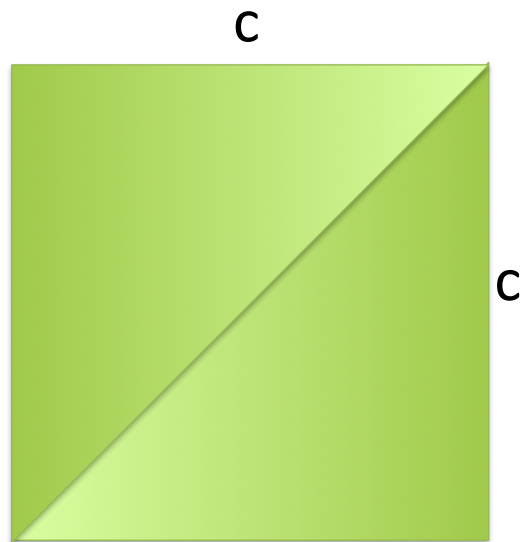
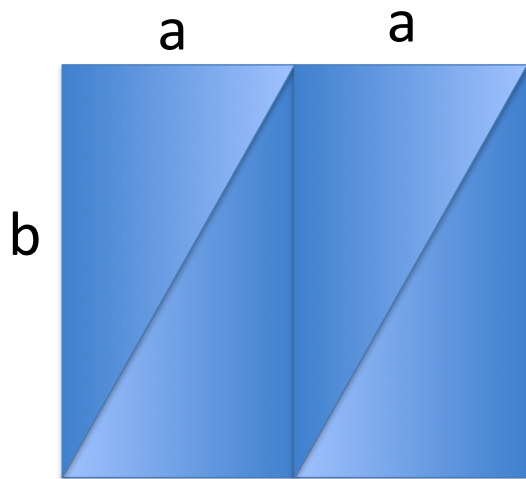


Mirror one rectangle to make a larger one



How many lines of symmetry does the large rectangle shown have?

Draw a shape with 4 lines of symmetry?

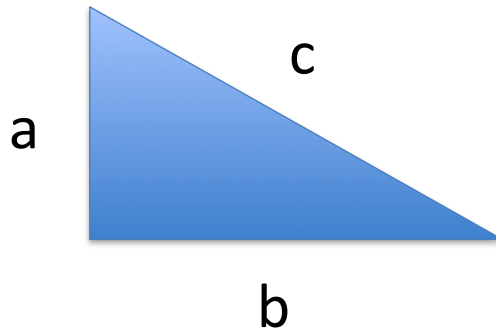


Can you work out the area of each set of shapes?

Use what you know to express c in terms of a & b .

Clue: $c^2 = ?$

Pythagoras' Theorem



$$a^2 + b^2 = c^2$$

Homework:

Research Pythagoras and find out something else he is credited with discovering.

Bonus Credit:

Find an innovative use for Pythagoras' theorem. Best use presented at the next class gets bonus credit and a special prize...