**Proof of theorem of Pythagoras**

So to proof for the rectangular lines a and b that the following relationship is always true:

c

a

a

a

a

b-a

b-a

b-a

b-a

c

c

c

c

b

a

Proof:

* The area of the total square is .
* This total area consists of 4 equal triangles and 1 remaining square.
* 2 equal triangles form a square. So the area of a triangle is: 1/2ab.
* The area of the remaing square is:

So the total area is equal to 4 times the triangle and 1 remaining square in the middle.

Thus:

**q.e.d.**