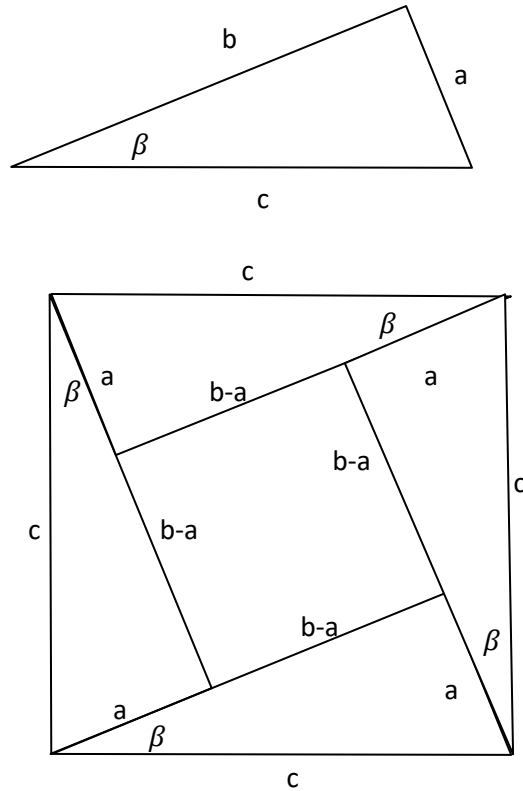


Proof of theorem of Pythagoras

So to proof:

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



Proof:

- The area of the total square is c^2 .
- 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: $\frac{1}{2} \times ab$.
- The area of the remaining square is: $(b-a)(b-a) = a^2 - 2ab + b^2$

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

$$c^2 = 4 \times \frac{1}{2}ab + a^2 - 2ab + b^2 = a^2 + b^2$$

Thus:

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

q.e.d.