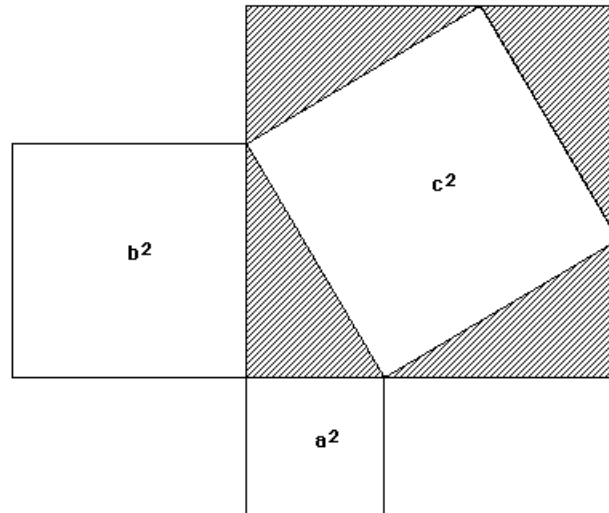


# Pythagoras – Quantum Leaps

## PYTHAGORAS'S THEOREM

In a right angled triangle the area of the square on the hypotenuse is the sum of the areas of the squares on the other two sides.



HERE IS A PROOF:

Fit copies of the triangle around  $c^2$ .

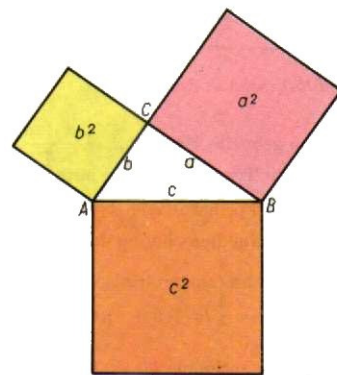
The area of the big square is area  $(a+b)^2$

The triangle's area is  $ab/2$ .

Hence  $(a+b)^2 = c^2 + 4(ab/2)$ .

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

and thus  $a^2 + b^2 = c^2$ .



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

