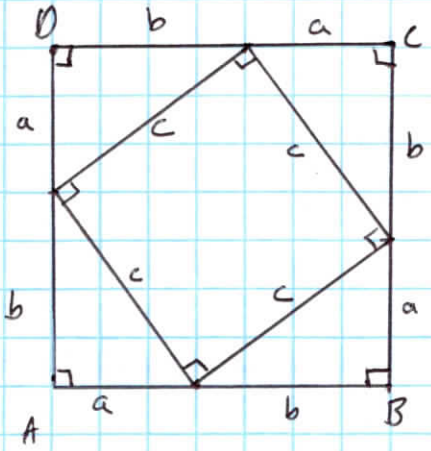

Theorem: $a^2+b^2=c^2$

Proof:

Area of triange is $\frac{1}{2}$ base x height

Triangle abc has area $\frac{1}{2}b \cdot a$

Therefore area of big square ABCD is equal to the smaller square given by length c, plus the four triangles abc.

$$c^2+4\left(\frac{1}{2}b \cdot a\right)=(a+b)^2$$

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

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

QED.