

A visual proof of the Pythagorean theorem

Wolfgang Slany

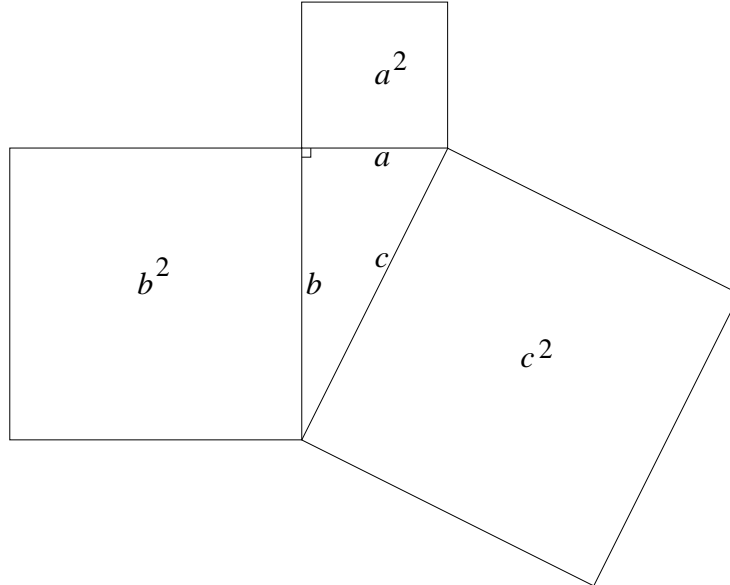
<http://slany.org/wolfgang/>
<http://www.dbai.tuwien.ac.at/proj/pf2html/>

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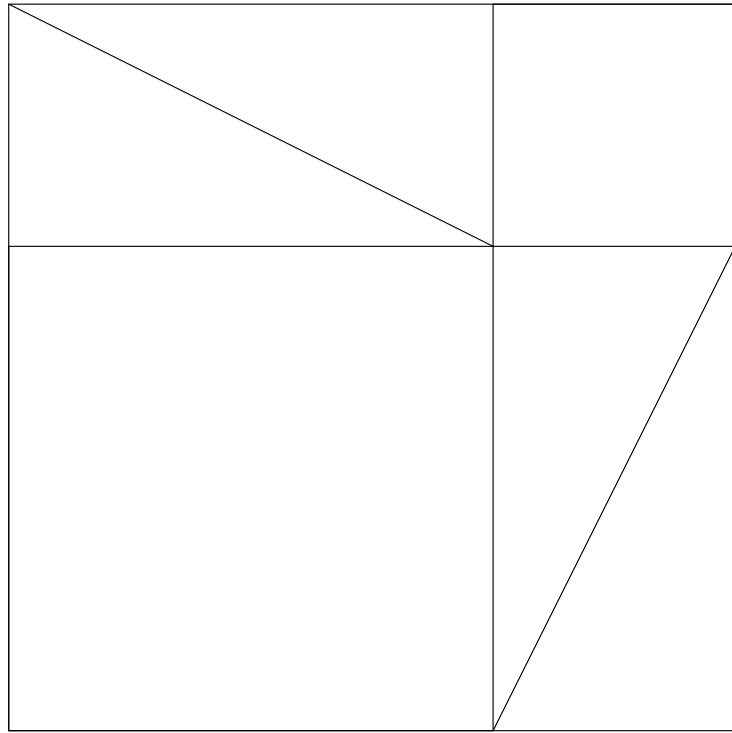
Theorem ([1]): The area of the square built upon the hypotenuse of a right triangle is equal to the sum of the areas of the squares upon the remaining sides. Stated algebraically, for a right triangle with sides of lengths a , b , and c , where c is the length of the hypotenuse,

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

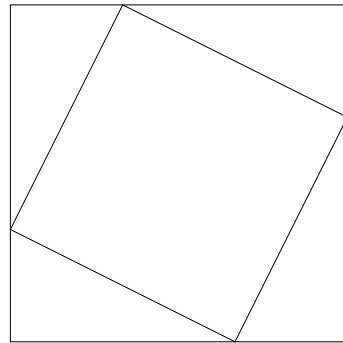
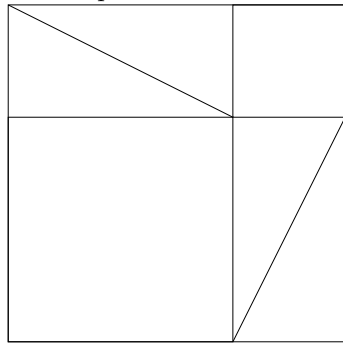
For example, the area of the square labeled c^2 in the following figure is equal to the sum of the areas of the squares labeled a^2 and b^2 .



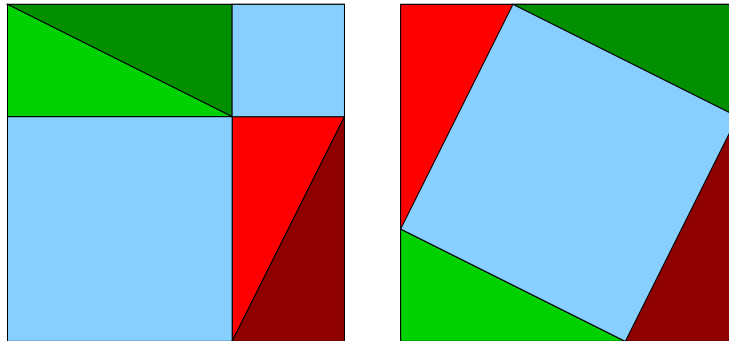
Proof:



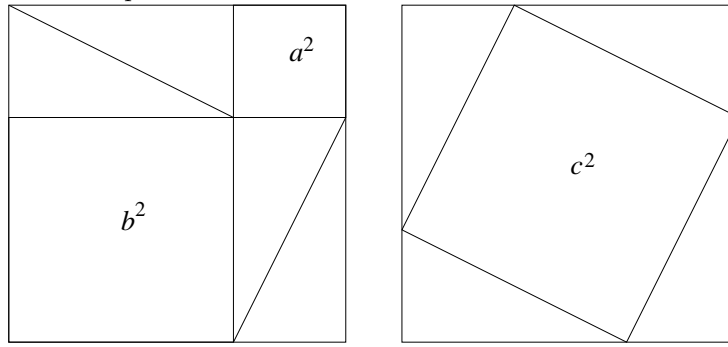
A more detailed proof:



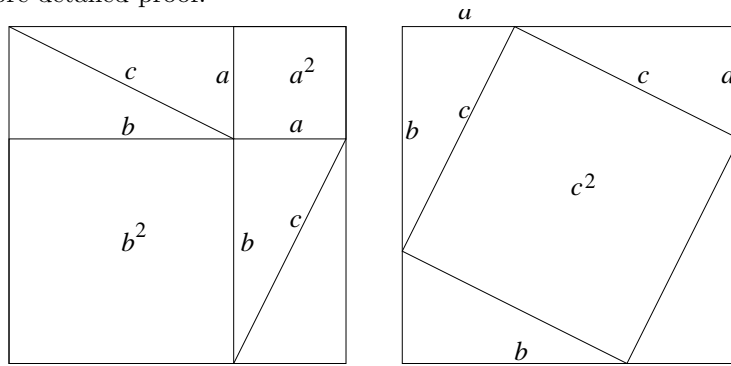
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