A visual proof of the Pythagorean theorem

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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:

A more detailed proof:
A more detailed proof:

\[ a^2 \]

\[ b^2 \]

A more detailed proof:

\[
\begin{array}{ccc}
  c & a & a^2 \\
  b & & \\
\end{array}
\]

\[ b^2 \]

A more detailed proof:

\[
\begin{array}{ccc}
  & & c^2 \\
  b & & a \\
\end{array}
\]
A more detailed proof:
See [http://whyslopes.com/etc/ThreeSkillsForAlgebra/ch17.html](http://whyslopes.com/etc/ThreeSkillsForAlgebra/ch17.html).

References