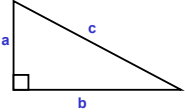


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The Pythagorean Theorem

You just proved the Pythagorean Theorem!!

- C-61 Pythagorean Theorem Conjecture
- In a right triangle, if a and b are the lengths of the legs and c is the length of the hypotenuse, then $a^2 + b^2 = c^2$

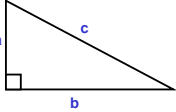


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Converse of the Pythagorean Theorem

- C-62 Converse of the Pythagorean Theorem Conjecture
- If the three sides of a triangle satisfy the Pythagorean Theorem equation, $a^2 + b^2 = c^2$, then the triangle is a right triangle



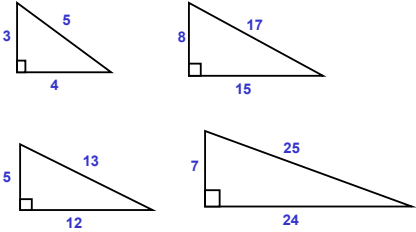
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Common Pythagorean Triples

Triples meaning "the measure of the 3 sides"

- The Following Multiple are "primitives"



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C-63 Pythagorean Multiple Conjecture

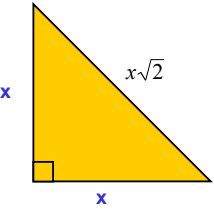
- If you multiply the lengths of all three sides of any right triangle, the resulting triangle will be a right triangle

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C-65 Isosceles Right Triangle Conjecture

- In an Isosceles right triangle, if the legs have length x , then the hypotenuse will have the length $x\sqrt{2}$

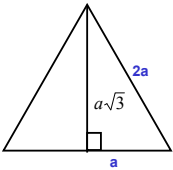


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C-66 30°-60°-90° Triangle Conjecture

- In a 30°-60°-90° Triangle, if the shorter leg has length a , then the longer leg has length $a\sqrt{3}$ and the hypotenuse has length $2a$



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