## Geometry Lesson- The Pythagorean Theorem

The Pythagorean Theorem:

Ex 1-A right triangle has legs of length 16 and 30. Find the length of the hypotenuse.
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Source: https://commons.wikimedia.org/wiki/File:Triangle-right.svg
Ex 2- A right triangle has a hypotenuse of length 25 and a leg of length 10. Find the length of the other leg.


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Ex 3 - Simplify each square root using prime factorization trees.
(a) $\sqrt{8}$
(b) $\sqrt{75}$
(c) $\sqrt{108}$

Ex 4- Find the value of $x$ in each triangle. Leave your answer in simplest radical form.


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