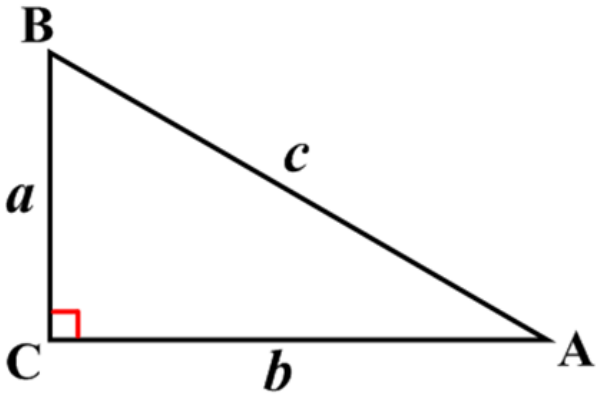
Th. 8.4 The Pythagorean Theorem

In a rt. Δ, the sum of the squares of the lengths of the legs is equal to the square of the length of the hypotenuse.

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



Def. Pythagorean Triple

A set of three nonzero whole numbers *a*, *b*, and *c* such that:

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

Th. 8.5

If the sum of the squares of the lengths of the shortest sides of a triangle is equal to the square of the longest side, then the triangle is a right triangle.

Th. 8.6

If the square of the length of the largest side of a Δ is less than the sum of the squares of the lengths of the other two sides, then the Δ is an acute Δ.

Th. 8.7

If the square of the length of the largest side of a Δ is greater than the sum of the squares of the lengths of the other two sides, then the Δ is an obtuse Δ.