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One Pythagoras for all dimensions.

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The Pythagorean theorem can be restated in the following way: the sum of the squares over the sides of a rectangle is equal to the sum of the squares over the diagonals. This point of view allows the author to give an n -dimensional generalization of the Pythagorean theorem in the following way: the sum of the squares over the edges of any n -dimensional box is equal to the sum of the squares over its diagonals. The elementary proof is of combinatorial character.

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