How do you find the length of a diagonal inside a rectangular prism?





In this lesson you will learn how to solve for diagonal lengths in rectangular prisms by applying the Pythagorean Theorem.



Let's Review

How to use equations and substitution with the Pythagorean Theorem.







Let's Review

What is a three-dimensional figure?





A Common Misunderstanding

The process of solving for the length of the diagonal in a rectangular prism requires only one step.





1 Write equations to represent the situation or illustration.

2 Solve for the unknown side lengths.

3 Check your answers.



Core Lesson

Write equations to represent the illustration.









Core Lesson

Solve for side C.

Side A Length	Side B Length	Side C Length	A ²	B ²	C ²
14.14	20	24.5	20 0	400	600
$A^2 + B^2 = C^2$ 200 + 400 = C ²					
-√600 C 24.5 C					







1 Write equations to represent the situation or illustration.

2 Solve for the unknown side lengths.

3 Check your answers.



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