



Pythagorean Theorem Applications

Today's Standard

8.G.B7 - Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.

Cues	Notes
Pythagorean Theorem	The Pythagorean Theorem states that in a right triangle, the square of the hypotenuse is equal to the sum of the squares of the other two sides.
Right Triangle	
Hypotenuse	This theorem only applies to right triangles, which have one 90-degree angle.
Legs	It is used to find the length of an unknown side in a right triangle.
Real-world applications	The formula is $a^2 + b^2 = c^2$, where c is the hypotenuse. Applications include measuring distances, heights, and designing structures.

Summary

The Pythagorean Theorem helps determine unknown side lengths in right triangles and is useful in various real-world and mathematical problems.