Pythagorean Theorem in Coordinate Plane

Today's Standard

8.G.B8 - Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.

Cues	Notes
Pythagorean Theorem	The Pythagorean Theorem helps find the distance between two points in a coordinate system.
Coordinate Plane	The theorem is $a^2 + b^2 = c^2$, where c is the hypotenuse.
Distance Calculation	In a coordinate plane, the distance formula $d = \sqrt{(x2 - x1)^2 + (y2 - y1)^2}$ is derived from the Pythagorean Theorem.
Right Triangle	Visualizing right triangles on the coordinate plane helps understand the theorem's application.
x and y	x (change in x-coordinates) and y (change in y-coordinates) form the legs of the right triangle.

Summary

The Pythagorean Theorem is used to calculate the distance between two points in a coordinate plane by forming a right triangle and applying the theorem to find the hypotenuse.