Coordinate Geometry Proofs

Today's Standard

HSG.GPE.B4 - Use coordinates to prove simple geometric theorems algebraically. For example, prove or disprove that a figure defined by four given points in the coordinate plane is a rectangle; prove or disprove that the point (1, √3) lies on the circle centered at the origin and containing the point (0, 2).

Real-World Applications for this Standard

Designing computer graphics; Engineering structural analysis; Navigation systems using GPS; Robotics path planning; Architecture and construction design

Today I Learned

Today, we learned about using math to prove shapes and points on graphs. This helps us understand and solve problems better.

Common Stumbling Blocks

Sometimes, students might think that drawing a shape is the same as proving it with math, but it's not. They also might think that if points look like they make a shape, they do. Math helps us check for sure.

Quiz Me

- What is a coordinate?
- Can you name a shape you see on a graph?
- How do you prove a shape with math?
- What is the Cartesian coordinate system?
- Why is it important to use math to check shapes?

Help Me

Using math to prove shapes helps us in real life, like in building things or making maps. It's important to check with math, not just by looking.