



Completing the Square for Quadratics

Today's Standard

HSA.SSE.B3b - Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines.

Real-World Applications for this Standard

Optimizing profit in business scenarios; Determining the trajectory of projectiles in physics; Maximizing area or volume in design problems; Calculating optimal investment returns; Analyzing parabolic motion in sports

Today I Learned

Today, I learned how to complete the square in a quadratic equation to find the highest or lowest point of the graph. This helps in solving many real-world problems!

Common Stumbling Blocks

Some students think changing the equation changes its answers, but it doesn't. Others think the highest point is always the answer, but sometimes it's the lowest point.

Quiz Me

- What is a square?
- What do we find when we complete the square?
- Does completing the square change the answers?
- Can the highest point be the answer?
- Can the lowest point be the answer?

Help Me

Completing the square helps us find the highest or lowest point of a graph. This is useful in real life, like when we want to find the best way to make money or the best way to throw a ball.