Quadratic Functions and Graphs

Today's Standard

HSF.IF.C8a - Use the process of factoring and completing the square in a quadratic function to show zeros, extreme values, and symmetry of the graph, and interpret these in terms of a context.

Real-World Applications for this Standard

Projectile motion in physics; Maximizing profit in business; Determining the optimal dimensions for a garden; Analyzing the path of a satellite; Modeling the spread of a disease

Today I Learned

Today, we learned about quadratic functions. We used special math tricks to find important points on a graph, like where it crosses the x-axis and its highest or lowest point.

Common Stumbling Blocks

Sometimes, kids think they can only use one way to solve these problems, but there are many ways! Also, they might think the highest point is always the answer, but it depends on the graph's shape.

Quiz Me

- What is a quadratic function?
- What does factoring mean?
- What is the vertex of a graph?
- Can a graph have a lowest point?
- What is symmetry in a graph?

Help Me

Quadratic functions can help us solve real-world problems like finding the best size for a garden or predicting how high a ball will go when thrown. We use special math tricks to find these answers.