



## Solving Quadratics with Complex Solutions

### Today's Standard

HSN.CN.C7 - Solve quadratic equations with real coefficients that have complex solutions.

### Real-World Applications for this Standard

Electrical engineering: analyzing AC circuits; Quantum physics: solving Schrödinger's equation; Signal processing: filtering complex signals; Finance: modeling complex financial instruments

### Today I Learned

Today, we learned how to solve special math problems called quadratic equations that have answers with imaginary numbers.

### Common Stumbling Blocks

Some kids think these math problems can only have real number answers, but they can also have imaginary number answers. Others might not understand how these imaginary numbers are used in real life, but they are very important in many jobs.

### Quiz Me

- What is a quadratic equation?
- Can quadratic equations have imaginary number answers?
- Where are imaginary numbers used in real life?
- What is an example of a job that uses imaginary numbers?
- Why is it important to learn about imaginary numbers?

### Help Me

Quadratic equations can sometimes have answers that are imaginary numbers. These imaginary numbers are used in many real-world jobs, like fixing electrical circuits and studying tiny particles in science.