



Operations with Complex Numbers

Today's Standard

HSN.CN.A2 - Use the relation $i^2 = -1$ and the commutative, associative, and distributive properties to add, subtract, and multiply complex numbers.

Real-World Applications for this Standard

Electrical engineering: Analyzing AC circuits.; Quantum mechanics: Describing wave functions.; Signal processing: Managing frequency domain data.; Control systems: Designing stable systems.; Computer graphics: Rotations and transformations.

Today I Learned

Today, we learned about complex numbers. Complex numbers use the special number 'i', which is the square root of -1. We practiced adding, subtracting, and multiplying these numbers.

Common Stumbling Blocks

Sometimes, students think that i^2 equals 1, but it actually equals -1. They might also mix up the steps when multiplying complex numbers. We use special rules to help understand these better.

Quiz Me

- What is 'i'?
- What does i^2 equal?
- How do you add complex numbers?
- How do you subtract complex numbers?
- How do you multiply complex numbers?

Help Me

Complex numbers are used in many real-world applications, like in engineering and science. We use them to solve problems that involve square roots of negative numbers. For example, they help in designing electrical circuits and in computer graphics.