Rational and Irrational Number Operations

Today's Standard

HSN.RN.B3 - Explain why the sum or product of two rational numbers is rational; that the sum of a rational number and an irrational number is irrational; and that the product of a nonzero rational number and an irrational number is irrational.

Real-World Applications for this Standard

Budgeting with rational numbers; Mixing rational and irrational measurements in recipes; Calculating distances using rational and irrational numbers; Financial planning involving interest rates (irrational numbers); Engineering calculations with mixed number types

Today I Learned

Today, we learned about rational and irrational numbers. Rational numbers can be written as fractions, but irrational numbers cannot. We found out that adding or multiplying these numbers follows special rules.

Common Stumbling Blocks

Some kids think that adding a rational number to an irrational number can make a rational number, or that multiplying a nonzero rational number by an irrational number can make a rational number. These ideas are not correct.

Quiz Me

- What is a rational number?
- What is an irrational number?
- What happens when you add two rational numbers?
- What happens when you add a rational number and an irrational number?
- What happens when you multiply a nonzero rational number and an irrational number?

Help Me

When you add or multiply rational and irrational numbers, the results follow certain rules. For example, adding a rational number to an irrational number always gives you an irrational number. This is useful in real life, like when you are measuring things or working with money.