Exponential Growth and Decay

Today's Standard

HSF.LE.A1c - Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another.

Real-World Applications for this Standard

Population growth; Radioactive decay; Interest rates in finance; Depreciation of assets; Spread of diseases

Today I Learned

Today, we learned about how things can grow or shrink by a constant percentage over time. This is called exponential growth or decay, and it's important in many real-life situations like how populations grow or how money earns interest.

Common Stumbling Blocks

Sometimes, kids think that when something grows exponentially, it means it grows by the same amount each time. But really, it grows by the same percentage. Another mistake is thinking that exponential decay means it shrinks by the same amount each time, but it actually shrinks by the same percentage.

Quiz Me

- What does exponential growth mean?
- How does exponential decay work?
- Can you give an example of exponential growth?
- Can you give an example of exponential decay?
- What is the difference between exponential and linear growth?

Help Me

Exponential growth and decay are when things change by a constant percentage over time. For example, money in a bank can grow by a certain percentage each year, or a car's value can drop by a certain percentage each year.