



## Arithmetic and Geometric Sequences

### Today's Standard

HSF.BF.A2 - Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms.\*

### Real-World Applications for this Standard

Calculating compound interest in finance; Modeling population growth; Predicting patterns in nature (e.g., Fibonacci sequence); Scheduling periodic maintenance; Analyzing sports statistics

### Today I Learned

Today, we learned about arithmetic and geometric sequences. These are special lists of numbers that follow a pattern. We can write these patterns in different ways and use them to solve real-world problems.

### Common Stumbling Blocks

Sometimes, kids mix up arithmetic sequences, which add the same number each time, with geometric sequences, which multiply by the same number each time. They might also find it hard to switch between the two ways of writing the patterns.

### Quiz Me

- What is an arithmetic sequence?
- What is a geometric sequence?
- How do you write a sequence using a formula?
- Can you give an example of a real-world sequence?
- What do you add in an arithmetic sequence?

### Help Me

We use sequences to solve real-world problems, like figuring out how money grows in a bank or how populations change over time. Understanding these patterns helps us make predictions and solve problems.