



## 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.\*

Cues	Notes
Arithmetic Sequence	Arithmetic Sequence: A sequence where the difference between consecutive terms is constant.
Geometric Sequence	Geometric Sequence: A sequence where each term is a constant multiple of the previous term.
Recursive Formula	Recursive Formula: Defines each term of a sequence using the previous term(s).
Explicit Formula	Explicit Formula: Defines each term of a sequence using its position in the sequence.
Real-world Applications	Real-world Applications: Examples include calculating compound interest, modeling population growth, and predicting patterns in nature.

### Summary

Understanding arithmetic and geometric sequences, both recursively and explicitly, allows students to model real-world situations and solve complex problems. Mastery of these concepts is foundational for advanced mathematical studies.