

# Alg2H Unit 08 (Chapter 9): Sequences and Series

Content Area: **Math**  
Course(s): **Level 1 Engineering Drawing, Algebra 2 CP, Algebra 2 A, Algebra 2 H**  
Time Period: **Marking Period 3**  
Length: **4 weeks**  
Status: **Published**

## Unit Introduction

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## Standards

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MA.F-IF.A.3	Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers.
MA.A-SSE.B.4	Derive and/or explain the formula for the sum of a finite geometric series (when the common ratio is not 1), and use the formula to solve problems.

## Essential Questions

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- How can you represent the terms of a sequence explicitly? How can you represent them recursively?
- What are equivalent explicit and recursive definitions for an arithmetic sequence?

## Content

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- Sec 9.1 - Mathematical Patterns (pg. 564)
- Sec 9.2 - Arithmetic Sequences (pg. 572)
- Sec 9.3 - Geometric Sequences (pg. 580)
- Sec 9.4 - Arithmetic Series (pg. 587)
- Sec 9.5 - Geometric Series (pg. 595)

## Skills

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- Find common difference of an arithmetic sequence
- Find the common ratio of a geometric sequence
- Identify mathematical patterns
- Write a recursive formula
- Write an explicit formula