Sequences and Series Lesson Objectives

Sequences Lesson

Find the first five terms of a sequence defined explicitly

Find the first five terms of a sequence defined recursively

Apply factorial notation

Arithmetic Sequences Lesson

Determine whether a sequence is arithmetic

Find a formula for an arithmetic sequence

Use an arithmetic sequence to model a real-world scenario

Terms of an Arithmetic Sequence Lesson

Find a specific term and find the nth term of an arithmetic sequence

Find the first term of an arithmetic sequence given another term and the common difference

Determine the missing terms of an arithmetic sequence using arithmetic mean

Use an arithmetic sequence to model a real-world scenario

Finite Arithmetic Series Lesson

Find the sum of the first n terms of an arithmetic sequence

Arithmetic Series Summation Formulas Lesson

Use summation formulas to evaluate a partial sum of an arithmetic sequence

Express a given arithmetic series in summation notation

Identify and use the properties of summations

Use summation formulas to evaluate sigma expressions

Equations of a Geometric Sequence Lesson

Determine if a sequence is arithmetic, geometric, or neither

Find the first five terms of a geometric sequence

Use a geometric sequence to model a real-world scenario

Terms of a Geometric Sequence Lesson

Find the *n*th term of a geometric sequence

Find the first term and common ratio given any two terms of a geometric sequence

Determine the missing terms of a geometric series using geometric mean

Use a geometric sequence to model a real-world scenario

Convergent and Divergent Sequences and Series Lesson

Determine if a series is convergent or divergent

Finite Geometric Series Lesson

Find the sum of the first *n* terms of a geometric sequence

Infinite Geometric Series Lesson

Find the sum of an infinite geometric series