

Sequences and Series Key Words

Sequences Lesson

explicit formula – a formula that defines each term of a sequence using the index n

factorial – a number created through the multiplication of consecutive integers by calculating the product of the first n integers: $n! = n \cdot (n-1) \cdot (n-2) \cdot \dots \cdot 3 \cdot 2 \cdot 1$

index – a subscript number that indicates the position of the term in a sequence

recursive formula – a formula that defines each term of a sequence using previous terms of the sequence

sequence – an ordered set of numbers

term – any number or value in a sequence

Arithmetic Sequences Lesson

arithmetic sequence – a type of sequence in which the difference between consecutive terms is constant

common difference – the difference between consecutive terms of an arithmetic sequence

Terms of an Arithmetic Sequence Lesson

arithmetic mean – the sum of a set of numbers divided by the number of items in the set

Finite Arithmetic Series Lesson

arithmetic series – the sum of the terms of a sequence in which the difference between consecutive terms is constant

partial sum – the sum of a finite number of terms of a sequence

Arithmetic Series Summation Formulas Lesson

index of summation – the variable used to indicate the values that will be evaluated for a summation

lower limit of summation – the smallest value that will be evaluated for a summation

sigma – the symbol Σ , used to denote a summation

upper limit of summation – the greatest value that will be evaluated for a summation

Equations of a Geometric Sequence Lesson

common ratio – the ratio of consecutive terms of a geometric sequence

geometric sequence – a type of sequence in which the ratio of consecutive terms is constant

Terms of a Geometric Sequence Lesson

geometric mean – a measure of central tendency found by taking the n th root of the product of n terms

Convergent and Divergent Sequences and Series Lesson

convergent sequence – a sequence in which the terms approach a certain number

convergent series – a series in which the sequence of its partial sums approaches a certain number

divergent sequence – a sequence in which the terms do not approach a certain number

divergent series – a series in which the sequence of its partial sums does not approach a certain number

limit of a sequence – the number that the terms of the sequence approach as n increases

limit of a series – the number that the partial sums approach as n increases

Finite Geometric Series Lesson

geometric series – the sum of the terms of a sequence in which the ratio of consecutive terms is constant

partial sum – the sum of a finite number of terms of a sequence

Infinite Geometric Series Lesson

infinite geometric series – the sum of the terms of a geometric sequence that continues without end