



Apply Sequences and Series in Solving Problems

Achieved	Merit	Excellence
Apply sequences and series in solving problems.	Apply sequences and series, using <u>relational thinking</u> , in solving problems.	Apply sequences and series, using <u>extended abstract thinking</u> , in solving problems.
<u>Relational Thinking</u> - Involves selecting and carrying out a logical sequence of steps, connecting different concepts or representations, demonstrating understanding of concepts, and relating findings to a context.		
<u>Extended Abstract Thinking</u> - Involves devising a strategy, identifying relevant concepts, developing logical reasoning, forming generalizations, and communicating mathematical insight.		

Graphical Methods

The methods included in this standard are related to:

- The general term of a sequence
- A partial sum of a sequence
- The sum to infinity of a geometric series
- Finding the value of the first term, common difference or common ratio of a sequence
- Finding the number of terms in a sequence

Problems

The problems will be set in real-life or mathematical contexts and provide opportunities to apply knowledge and understanding of sequences and series.

Key Vocabulary

Students are expected to understand and use terms related to graphical methods, such as:

- Sequence
- Series
- General term
- Infinite sequence
- Partial sum
- Geometric series
- Common difference
- Common ratio
- Geometric sequence
- Summation