

## **Learning summary Report**

### **Sequence:**

Definition:

- An ordered list of numbers, usually determined by a formula or rule, is called a sequence.

Categories:

- Sequences containing a finite number of terms are called finite sequences.
- Sequences containing an infinite number of terms are known as infinite sequences.

### **Arithmetic Sequence**

Definition

- A series of numbers in which there is a constant difference between words is called an arithmetic sequence.

Properties

- The distinction between phrases that follow one another is constant.
- The formula can be used to directly compute the nth term

### **Geometric Sequences**

Definition

- A geometric sequence is a set of integers in which the preceding term's value is multiplied by a constant for each term that follows the first.

Properties

- The phrases that follow always have the same ratio.
- The formula can be used to directly compute the nth term.

Linear Recurrence Relations:

- Essential for comprehending algorithms, figuring out differential equations, and simulating dynamic systems in the fields of economics and engineering.