

# Arrays - Single and Two Dimensional

Chapter 3: Arrays - Single and Two Dimensional · Topic 1

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## Key Concept

A single-dimensional array stores a list of values, accessed using an index, like `numbers[0]` for the first element.

A two-dimensional array stores data in rows and columns, like a grid or table, accessed using two indices, like `grid[0][1]`.

Arrays are useful for storing collections of related data, like a list of student marks or a grid representing a game board.

Understanding arrays helps us efficiently store, access, and manipulate multiple related values in a program.

## Quick Revision Notes

- Single-dimensional arrays store a list of values.
- Access uses an index, like `numbers[0]`.
- Two-dimensional arrays store data in rows and columns.
- Access uses two indices, like `grid[0][1]`.
- Arrays store collections of related data.
- Example: student marks or a game board grid.
- Arrays help efficient data storage and access.
- This is essential for handling multiple related values.

## Practice Questions

- 1 Create a single-dimensional array of five numbers.
- 2 Access and print the third element of your array.
- 3 Create a simple two-dimensional array (3x3 grid).
- 4 Access an element from your 2D array.
- 5 Discuss when to use a single vs two-dimensional array.
- 6 Write a loop to print all elements of an array.