**STRAND 2 ALGEBRA**
**Matrices**

# Introduction

- A matrix is a rectangular arrangement of numbers in rows and columns.
- For instance, matrix A below has two rows and three columns. The dimensions of this matrix are 2 x 3 (read "2 by 3").
- The numbers in a matrix are its entries. In matrix A, the entry in the second row and third column is 5.
- Some matrices (the plural of matrix) have special names because of their dimensions or entries.

# Order of Matrix

- Matrix consist of rows and columns. Rows are the horizontal arrangement while columns are the vertical arrangement.
- Order of matrix is being determined by the number of rows and columns. The order is given by stating the number of rows followed by columns.

**Note;**

- If the number of rows is m and the number of columns n, the matrix is of order m×n.

  E.g. If a matrix has m rows and n columns, it is said to be order m×n.

e.g. $\begin{bmatrix} 2 & 0 & 3 & 6 \\ 3 & 4 & 7 & 0 \\ 1 & 9 & 2 & 5 \end{bmatrix}$ is a matrix of order 3×4.

e.g. $\begin{bmatrix} 1 & 0 & -2 \\ 2 & 1 & 5 \\ -1 & 3 & 0 \end{bmatrix}$ is a matrix of order 3.

e.g. $\begin{bmatrix} 2 & 3 & 4 \\ 1 & -8 & 5 \end{bmatrix}$ is a 2×3 matrix.

e.g. $\begin{bmatrix} 2 \\ 7 \\ -3 \end{bmatrix}$ is a 3×1 matrix.

# Elements of Matrix