Topics on matrix

- Definition
    - Matrices/ matrix
    - Row and column matrix
    - Square/ Null/ Equal/ Unit
    - Diagonal/ Scalar
    - Symmetric/ Skew symmetric
    - Sub/ upper/ lower triangle
- Algebra (Addition/ subtraction/ multiplication)
- Ad-Joint
- Inverse
- Equation solve

Definitions

Pattern
Definition title
- …….. + "is called *Definition title*"(hidden)
- alternative

Matrix
- Matrix is a rectangular arrangement of numbers (real number/ complex number) in m rows and n columns is called matrix of order (or size) m by n matrix.
- A matrix is an ordered system of numbers arranged in formation of rows and columns. (easier)

Row (/column) matrix
- A matrix in which there is only one row is called a row matrix.

Null
- A matrix in which every element is zero is called an null matrix.

Equal
- Two matrices are said to be equal if and only if they are of the same order (i.e. they have the same row and column number) and each element of one is equal to the corresponding of the other one.

Square
- An m x n matrix A is said to be a square matrix if m = n, i.e. number of rows is equal to the number of columns.

Diagonal
- A square matrix is called diagonal matrix if each of it's non diagonal element is zero

Scalar
- A diagonal matrix whose diagonal elements are all equal

Unity/ Identity

- A square matrix where diagonal elements are unity (or one) and remaining elements are zero

Sub
- A matrix which is obtained by deleting any number of rows or columns

Upper (/Lower) triangle
- A square matrix in which all the elements below the principal diagonal are zero

Symmetric
- A square matrix in which $a_{ij} = a_{ji}$ i.e. (i, j)th element is the same as the (j, i)th element
- a matrix which doesn't change if we interchange rows and columns

Skew symmetric
- A square matrix in which $a_{ij} = -a_{ji}$ i.e. (i, j)th element is the negative (j, i)th element

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source
Business mathematics (sir's shared preview)
- Sadman Sensei
