**Inverse of a Matrix**

The inverse of a matrix is a fundamental concept in a Linear Algebra

Inverse of a matrix is a matrix that, when we multiply the original matrix that yields the identity matrix. Inverse of a matrix is denoted by A-1 and it satisfies the equation

A . A-1 = A-1 . A = I

I is the Identity Matrix of size n X n .

Conditions for a matrix to have an inverse:

The matrix must be a square matrix.

The determinant of the matrix (det(A)) must not be zero.

A black and white math equation

Description automatically generated with medium confidenceWhere, A is the Matrix and its inverse will be

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Where ad – bc is the determinant of A