Determinant Applications

Definition of '$A_i(\mathbf{b})$': Let A be an $n \times n$ matrix, and b be any vector in $\mathbb{R}^n$. Then $A_i(\mathbf{b})$ is the matrix obtained from A by replacing column i by the vector $\mathbf{b}$.

Theorem 7 – **Cramer's Rule**:

Proof of Theorem 7:

Example 14.1:

Definition of Adjugate (Adjoint):

Theorem 8:

Example 14.2:

Theorem 9:

Note:

Example 14.3: