

The matrix A is given as:

$$1) \text{ Calculate } \Delta = |A| = \begin{vmatrix} & & \\ & & \\ & & \end{vmatrix}$$

2) Calculate algebraic cofactors:

$$A_{11} =$$

$$A_{12} =$$

$$A_{13} =$$

$$A_{21} =$$

$$A_{22} =$$

$$A_{23} =$$

$$A_{31} =$$

$$A_{32} =$$

$$A_{33} =$$

3) Decompose this determinant in rows and columns:

$$(\text{row 1}) \Delta = |A| = a_{11} \cdot A_{11} + a_{12} \cdot A_{12} + a_{13} \cdot A_{13} =$$

$$(\text{row 2}) \Delta = |A| = a_{21} \cdot A_{21} + a_{22} \cdot A_{22} + a_{23} \cdot A_{23} =$$

$$(\text{row 3}) \Delta = |A| = a_{31} \cdot A_{31} + a_{32} \cdot A_{32} + a_{33} \cdot A_{33} =$$

$$(\text{column 1}) \Delta = |A| = a_{11} \cdot A_{11} + a_{21} \cdot A_{21} + a_{31} \cdot A_{31} =$$

$$(\text{column 2}) \Delta = |A| = a_{12} \cdot A_{12} + a_{22} \cdot A_{22} + a_{32} \cdot A_{32} =$$

$$(\text{column 3}) \Delta = |A| = a_{13} \cdot A_{13} + a_{23} \cdot A_{23} + a_{33} \cdot A_{33} =$$

4) The inverse matrix is

$$A^{-1} = \frac{1}{|A|} \cdot \begin{pmatrix} A_{11} & A_{12} & A_{13} \\ A_{21} & A_{22} & A_{23} \\ A_{31} & A_{32} & A_{33} \end{pmatrix}^T = \frac{1}{|A|} \cdot \begin{pmatrix} A_{11} & A_{21} & A_{31} \\ A_{12} & A_{22} & A_{32} \\ A_{13} & A_{23} & A_{33} \end{pmatrix} =$$