Co-factor of an Element

- Let Δ be a determinant

$$\Delta = \begin{vmatrix} a & b \\ c & d \end{vmatrix}$$

Co – factor, of an element a_{ij}, denoted by C_{ij} is defined as

$$C_{ij} = (-1)^{i+j} M_{ij}$$

$C_{11} = M_{11} = d$

$C_{12} = -M_{12} = -c$

$C_{21} = -M_{21} = -b$

$C_{22} = M_{22} = a$