



Key Takeaways



Special types of Matrices

- Involutory matrix :

A square matrix A is said to be involutory if $A^2 = I$.

$$\Rightarrow A \cdot A = I \Rightarrow A = A^{-1}$$

$$\Rightarrow A^3 = A^2 \cdot A = I \cdot A$$

$$\Rightarrow A^3 = A$$

Note:

If A is involutory , then $A = A^{-1}$

$$A^3 = A; A^4 = I$$

$$A^{2k} = I ; A^{2k+1} = A , k \in \text{Integer}$$