



Power of a Square Matrix

If A is a square matrix of order n ,

- $AI_n = I_nA = A$, I_n is called the multiplicative identity.
- $A^2 = A \cdot A$
- $A^n = A \cdot A \cdots A$ (up to n times) , $n \in N$



- $A^n A^m = A^{n+m}$, $m, n \in N$