

Matrix Rules

Let $A, B,$ and C be matrices.

1.) $A + B = B + A$

2.) $A + 0 = 0 + A = A$

3.) $A \cdot I_n = A, I_m \cdot A = A$ (if A is $m \times n$)

4.) In general, $AB \neq BA$

(ORDER is important for multiplication.)

5.) $(A + B)C = AC + BC$

6.) $A(B + C) = AB + AC$

7.) $(AB)C = A(BC)$

8.) $A \cdot 0 = 0, 0 \cdot A = 0$