

❖ MATRICES SUBTRACTION

- To subtract two matrices: subtract the numbers in the matching positions:

$$\begin{bmatrix} 3 & 8 \\ 4 & 6 \end{bmatrix} - \begin{bmatrix} 4 & 0 \\ 1 & -9 \end{bmatrix} = \begin{bmatrix} -1 & 8 \\ 3 & 15 \end{bmatrix}$$

These are the calculations:

$$3-4=-1 \quad 8-0=8$$

$$4-1=3 \quad 6-(-9)=15$$

❖ NEGATIVE

- The negative of a matrix is also simple:

$$-\begin{bmatrix} 2 & -4 \\ 7 & 10 \end{bmatrix} = \begin{bmatrix} -2 & 4 \\ -7 & -10 \end{bmatrix}$$

These are the calculations:

$$-(2) = -2 \quad -(-4) = +4$$

$$-(7) = -7 \quad -(10) = -10$$

Note:

- Subtracting is actually defined as the Addition of a negative matrix:
 $A + (-B)$