MATRIX ADDITION AND SUBTRACTION

Exercise 1: Evaluate the following matrix equations

a)
$$\begin{pmatrix} 3 & 1 & -1 \\ 7 & 1 & 27 \\ 4 & 5 & 9 \end{pmatrix} + \begin{pmatrix} 4 & 1 & 2 \\ 8 & 9 & -6 \\ 3 & 2 & 10 \end{pmatrix}$$

b)
$$\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix} + \begin{pmatrix} 7 & 4 \\ 10 & 11 \end{pmatrix}$$

c)
$$\begin{pmatrix} 1 \\ 3 \\ 9 \end{pmatrix} + \begin{pmatrix} 1 \\ 3 \\ 10 \end{pmatrix}$$

d)
$$\begin{pmatrix} 4 & 7 & 3 & 2 \\ 1 & 2 & 3 & 4 \end{pmatrix} + \begin{pmatrix} -3 & -6 & 2 & 3 \\ -1 & -2 & 0 & 4 \end{pmatrix}$$

e)
$$\begin{pmatrix} 3 & 4 \\ 5 & 6 \\ 7 & 8 \end{pmatrix} + \begin{pmatrix} 3 & 4 \\ 6 & 7 \\ 7 & 8 \end{pmatrix}$$

f)
$$\begin{pmatrix} 0 & 0 & 0 \end{pmatrix} + \begin{pmatrix} 10 & 11 & 12 \end{pmatrix}$$

Exercise 2 : Evaluate the following matrix equations

a) $\begin{pmatrix} 10 & 20 & 30 \end{pmatrix} - \begin{pmatrix} 1 & 1 & 1 \end{pmatrix}$

b) $\begin{pmatrix} 2 & 2 \\ 2 & 2 \end{pmatrix} - \begin{pmatrix} 7 & 2 \\ 10 & 4 \end{pmatrix}$

c) $\begin{pmatrix} 3 & 4 & 5.5 \\ 6 & 10 & 20 \\ 3 & 10 & 20 \end{pmatrix} - \begin{pmatrix} 2 & 3 & 1.5 \\ 1 & 11 & 11 \\ 0 & 9 & 3 \end{pmatrix}$

d) $\begin{pmatrix} 0 & 0 & 1 \\ 0 & 1 & 0 \\ 0 & 0 & 0 \end{pmatrix} - \begin{pmatrix} 2 & 2 & 2 \\ 2 & 2 & 2 \\ 1 & 10 & 11 \end{pmatrix}$

e) $\begin{pmatrix} 5 & 1 \\ 6 & 5 \\ 10 & 13 \\ 19 & 14 \end{pmatrix} - \begin{pmatrix} 10 & 0 \\ 1 & 5 \\ 3 & 3 \\ 4 & 5 \end{pmatrix}$

f) $\begin{pmatrix} 10 & 20 \\ 30 & 4 \end{pmatrix} - \begin{pmatrix} -4 & -10 \\ -16 & -3 \end{pmatrix}$