

Pauta tarea 5.

P2) $A = \begin{pmatrix} 2 & 4 \\ -1 & 3 \end{pmatrix}$ $B = \begin{pmatrix} 5 & 1 \\ 10 & 9 \end{pmatrix}$ $C = \begin{pmatrix} -2 & -3 \\ 0 & 8 \end{pmatrix}$

1- $A + B = \begin{pmatrix} 7 & 5 \\ 9 & 12 \end{pmatrix}$ 2- $A + C = \begin{pmatrix} 0 & 1 \\ -1 & 11 \end{pmatrix}$

3- $A - B = \begin{pmatrix} -3 & 3 \\ -11 & -6 \end{pmatrix}$ 4- $3A + 2B = \begin{pmatrix} 6 & 12 \\ -3 & 9 \end{pmatrix} + \begin{pmatrix} 10 & 2 \\ 20 & 18 \end{pmatrix} = \begin{pmatrix} 16 & 14 \\ 17 & 27 \end{pmatrix}$

5- $4A - 3B + 2C = \begin{pmatrix} 8 & 16 \\ -4 & 12 \end{pmatrix} - \begin{pmatrix} 15 & 3 \\ 30 & 27 \end{pmatrix} + \begin{pmatrix} -4 & -6 \\ 0 & 16 \end{pmatrix} = \begin{pmatrix} -11 & 7 \\ -34 & 1 \end{pmatrix}$

6- $2A + B + 0C = 2A + B = \begin{pmatrix} 4 & 8 \\ -2 & 6 \end{pmatrix} + \begin{pmatrix} 5 & 1 \\ 10 & 9 \end{pmatrix} = \begin{pmatrix} 9 & 9 \\ 8 & 15 \end{pmatrix}$

7- $\det(A) = 10$

8- $\det(B) = 35$

9- $\det(C) = -16$

P3) $A + 2B - C + D = 0$

$D = -A - 2B + C$

$A = \begin{pmatrix} 0 & -4 \\ 1 & -6 \end{pmatrix}$

$= \begin{pmatrix} 0 & 4 \\ -1 & 6 \end{pmatrix} + \begin{pmatrix} 4 & 0 \\ -10 & -16 \end{pmatrix} + \begin{pmatrix} -2 & -3 \\ 0 & 1 \end{pmatrix}$

$B = \begin{pmatrix} -2 & 0 \\ 5 & 8 \end{pmatrix}$ $C = \begin{pmatrix} -2 & -3 \\ 0 & 1 \end{pmatrix}$

$= \begin{pmatrix} 2 & 1 \\ -11 & -9 \end{pmatrix}$

P4) $A = \begin{pmatrix} 1 & 2 \\ 4 & 0 \end{pmatrix}$ $B = \begin{pmatrix} 4 & 1 \\ -2 & 3 \end{pmatrix}$ $C = \begin{pmatrix} 2 & 0 \\ 0 & 2 \end{pmatrix}$ $D = \begin{pmatrix} 1 & 2 \\ 0 & 0 \end{pmatrix}$

1- $A \cdot B = \begin{pmatrix} 0 & 7 \\ 16 & 4 \end{pmatrix}$

$B \cdot A = \begin{pmatrix} 8 & 8 \\ 10 & -4 \end{pmatrix}$

2- $CD = \begin{pmatrix} 2 & 4 \\ 0 & 0 \end{pmatrix}$

$D \cdot C = \begin{pmatrix} 2 & 4 \\ 0 & 0 \end{pmatrix}$

3- $AB \neq BA$

4- $CD = DC$