



Aluno(a): .....

(1) Dadas as matrizes

$$A = \begin{pmatrix} 5 & 6 \\ 4 & 2 \end{pmatrix} \quad \text{e} \quad B = \begin{pmatrix} 0 & -1 \\ 5 & 4 \end{pmatrix},$$

calcule  $A + B$  e  $A - B$ .

(2) Dadas as matrizes

$$A = \begin{pmatrix} 1 & 5 & 7 \\ 3 & 9 & 11 \end{pmatrix}, \quad B = \begin{pmatrix} 2 & 4 & 6 \\ 8 & 10 & 12 \end{pmatrix}, \quad C = \begin{pmatrix} 0 & -1 & -5 \\ 1 & 4 & 7 \end{pmatrix},$$

calcule  $A + B + C$ ,  $A - B + C$ ,  $A - B - C$  e  $-A + B - C$ .

(3) Determine  $\alpha$ ,  $\beta$ ,  $\gamma$  e  $\delta$  de modo que se tenha:

$$\begin{bmatrix} \alpha & 1 \\ 1 & 2 \end{bmatrix} + \begin{bmatrix} 2 & \beta \\ 0 & -1 \end{bmatrix} = \begin{bmatrix} 3 & 2 \\ \gamma & \delta \end{bmatrix}.$$

(4) Calcule as matrizes  $2A$ ,  $\frac{1}{3}B$  e  $\frac{1}{2}(A + B)$ , sendo dadas:

$$A = \begin{pmatrix} 1 & 1 \\ 5 & 7 \end{pmatrix} \quad \text{e} \quad B = \begin{pmatrix} 0 & 6 \\ 9 & 3 \end{pmatrix},$$

(5) Calcule os seguintes produtos:

(a)  $\begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix} \cdot \begin{pmatrix} 4 & 7 \\ 2 & 3 \end{pmatrix}$

(b)  $\begin{pmatrix} 1 \\ 2 \\ 3 \end{pmatrix} \cdot (3 \ 1 \ 1 \ 2)$

(c)  $\begin{pmatrix} 1 & -1 & 5 & 0 \\ 2 & 3 & 7 & 1 \end{pmatrix} \cdot \begin{pmatrix} 1 & 1 \\ 2 & 1 \\ 3 & 1 \\ 1 & 1 \end{pmatrix}$