

Tarefa básica

$$1) \begin{pmatrix} 5 & 8 \\ 7 & 10 \\ 9 & 12 \end{pmatrix}$$

$$2) \begin{pmatrix} 5 & 17 \\ 8 & 20 \end{pmatrix}$$

R: Alternativa (A)

$$3) \begin{bmatrix} 1 & x+2 \\ y-1 & z+1 \end{bmatrix} = \begin{bmatrix} 1 & -x \\ 2y & -2z \end{bmatrix}$$

$$\begin{aligned} x+2 &= -x \\ 2x &= -2 \\ x &= \frac{-2}{2} = -1 \end{aligned}$$

$$\begin{aligned} y-1 &= 2y \\ -1 &= y \end{aligned}$$

$$\begin{aligned} z+1 &= -2z \\ 3z &= -1 \\ z &= -\frac{1}{3} \end{aligned}$$

$$4) \begin{bmatrix} 3 & -x \\ 3x & x \end{bmatrix} = \begin{bmatrix} 3 & y \\ 2x+1 & z-1 \end{bmatrix}$$

$$\begin{aligned} 3x &= 2x+1 \\ x &= 1 \end{aligned}$$

$$-(1) = y$$

$$\begin{aligned} 1 &= z-1 \\ 2 &= z \end{aligned}$$

$$5) \begin{bmatrix} 0 & 1 & \sqrt{2} & 1 \\ 1 & 0 & 1 & \sqrt{2} \\ \sqrt{2} & 1 & 0 & 1 \\ 1 & \sqrt{2} & 1 & 0 \end{bmatrix}$$

R: Alternativa (B)

$$6) \quad A = \begin{bmatrix} -1 \\ 2 \\ 3 \end{bmatrix} \quad B = \begin{bmatrix} 0 \\ -2 \\ 1 \end{bmatrix} \quad 2A = \begin{bmatrix} -2 \\ 4 \\ 6 \end{bmatrix}$$

$$2A - B = \begin{bmatrix} -2 \\ 6 \\ 5 \end{bmatrix}$$

$$7) \quad A = \begin{bmatrix} 1 & 2 \\ 3 & 4 \\ 5 & 6 \end{bmatrix} \quad B^t = \begin{bmatrix} -1 & 2 \\ 3 & 0 \\ 2 & 1 \end{bmatrix} \quad A - B^t = \begin{bmatrix} 2 & 0 \\ 0 & 4 \\ 3 & 5 \end{bmatrix}$$

$$8) \quad A = \begin{bmatrix} 2 & -1 & 2y \\ x & 0 & -z \\ 4 & 3 & 2 \end{bmatrix} \quad A^t = \begin{bmatrix} 2 & x & 4 \\ -1 & 0 & 3 \\ 2y & -z & 2 \end{bmatrix}$$

$$2y = 4 \quad x = -1 \quad -z = 3 \quad (-1)$$

$$y = \frac{4}{2} = 2 \quad z = -3$$

$$-1 + 2 - 3 = -2 \quad R: \text{Alternativa (A)}$$

$$9) \quad A = \begin{bmatrix} 1 & 3 \\ 3 & 1 \\ 4 & 5 \end{bmatrix} \quad B = \begin{bmatrix} 1 & 0 \\ 0 & 2 \\ 0 & 0 \end{bmatrix} \quad A + B = \begin{bmatrix} 2 & 3 \\ 3 & 3 \\ 4 & 5 \end{bmatrix}$$

R: Alternativa (C)