Exercícios

1

Considerando as matrizes $A=\begin{pmatrix} x+y & -2 \\ -5 & 3 \end{pmatrix}$ e $B=\begin{pmatrix} 5 & -2 \\ -5 & x-y \end{pmatrix}$, determine o valor de x e de y sabendo que A=B.

- A)

  x=1 e y=4

- B)

  x=2 e y=3

- C)

  x=4 e y=1

- D)

  x=6 e y=-1

- E)

  x=-1 e y=-4

Ver alternativa correta

2

Considere as matrizes $A=\begin{pmatrix} -1 & 2 & 3 \\ 4 & 8 & -1 \end{pmatrix}$ e $B=\begin{pmatrix} 0 & -3 & 2 \\ 1 & -1 & 5 \end{pmatrix}$. A matriz que representa A-3B é:

- A)

$\begin{pmatrix} 1 & -11 & 3 \\ -1 & 11 & 16 \end{pmatrix}$

- B)

$\begin{pmatrix} 0 & -11 & 9 \\ -1 & 8 & 16 \end{pmatrix}$

- C)

$\begin{pmatrix} 0 & -11 & 3 \\ 7 & 11 & 14 \end{pmatrix}$

- D)

$\begin{pmatrix} 0 & -11 & 3 \\ 7 & 11 & 16 \end{pmatrix}$

- E)

$\begin{pmatrix} -1 & 11 & -3 \\ 1 & 11 & -16 \end{pmatrix}$

Ver alternativa correta

3

Considere as matrizes $A = \begin{pmatrix} x-4 & -2 \\ 5 & -3 \end{pmatrix}$ e $\begin{pmatrix} -8 & -2 \\ 5 & y+9 \end{pmatrix}$. Se A = B, então x e y valem respectivamente:

- A)

  -4 e 12

- B)

  -4 e -12

- C)

  -8 e -3

- D)

  -12 e 6

- E)

  -12 e 12

Ver alternativa correta

4

Considere as matrizes $A = \begin{pmatrix} x+2y & 5 \\ -3 & 2 \end{pmatrix}$ e $B = \begin{pmatrix} 16 & 5 \\ -3 & y-x \end{pmatrix}$. Se A=B temos que:

- A)

  x=6 e y=4.

- B)

  x=4 e y=6.

- C)

  x=4 e y=4.

- D)

  x=0 e y=8.

- E)

  x=2 e y=-2.

Ver alternativa correta

5

Considerando a matriz $A = \begin{pmatrix} 1 & -2 & 4 \\ -3 & 0 & 12 \\ \frac{1}{2} & -5 & 11 \end{pmatrix}$ podemos dizer que:

- A)

  $a_{11} = 1, a_{31} = 4$ e $a_{32} = -5$.

- B)

  $a_{11} = 1, a_{31} = \frac{1}{2}$ e $a_{32} = -5$.

- C)

  $a_{11} = 4, a_{31} = \frac{1}{2}$ e $a_{32} = 12$.

- D)

  $a_{11} = 1, a_{31} = 4$ e $a_{32} = 12$.

- E)

  $a_{11} = 11, a_{31} = 4$ e $a_{32} = -5$.

Ver alternativa correta

6

Considere as matrizes $A = \begin{pmatrix} 35 & -21 \\ 14 & 0 \end{pmatrix}$ e $B = \begin{pmatrix} 3 & 2 \\ -1 & 10 \end{pmatrix}$. A matriz que representa $C = \frac{1}{7}A - 4B$ é:

- A)

$$C = \begin{pmatrix} -7 & -11 \\ -2 & -40 \end{pmatrix}$$

- B)

$$C = \begin{pmatrix} -7 & -5 \\ 6 & -10 \end{pmatrix}$$

- C)

$$C = \begin{pmatrix} -7 & -16 \\ 6 & -40 \end{pmatrix}$$

- D)

$$C = \begin{pmatrix} -14 & -11 \\ 6 & -7 \end{pmatrix}$$

- E)

$$C = \begin{pmatrix} -7 & -11 \\ 6 & -40 \end{pmatrix}$$

Ver alternativa correta

7

Considere as matrizes $A = \begin{pmatrix} 0 & -2 \\ 5 & 3 \end{pmatrix}$ e $B = \begin{pmatrix} 4 & 2 \\ -1 & 5 \end{pmatrix}$. A matriz que representa $C = 2A - B$ é:

- A)

$$C = \begin{pmatrix} 4 & -2 \\ 9 & 1 \end{pmatrix}$$

- B)

$$C = \begin{pmatrix} 4 & -2 \\ 9 & 1 \end{pmatrix}$$

- C)

$$C = \begin{pmatrix} -4 & -6 \\ 11 & 1 \end{pmatrix}$$

- D)

$$C = \begin{pmatrix} -4 & -2 \\ 11 & 1 \end{pmatrix}$$

- E)

$$C = \begin{pmatrix} -4 & -10 \\ 8 & 2 \end{pmatrix}$$

Ver alternativa correta

8

Considere as matrizes $A = \begin{pmatrix} 10 & 50 \\ -60 & 80 \\ 20 & -40 \end{pmatrix}$ e $B = \begin{pmatrix} 5 & -5 \\ 2 & -3 \\ 6 & -12 \end{pmatrix}$. A matriz que representa $C = 0{,}1A + B$ é:

- A)

$$C = \begin{pmatrix} 6 & 5 \\ 6 & 8 \\ 8 & -12 \end{pmatrix}$$

- B)

$$C = \begin{pmatrix} 6 & 0 \\ -4 & 5 \\ 8 & -16 \end{pmatrix}$$

- C)

$$C = \begin{pmatrix} 1 & 5 \\ -6 & 8 \\ 2 & -4 \end{pmatrix}$$

- D)

$$C = \begin{pmatrix} -4 & 10 \\ -8 & 11 \\ -4 & 8 \end{pmatrix}$$

- E)

$$C = \begin{pmatrix} 6 & 0 \\ -4 & 5 \\ 8 & 8 \end{pmatrix}$$