Tarefa básica ①

1- $-3+(-1)=-4$ | $0+2=2$
$6+3=9$ | $0+(-6)=-6$
$0+(-4)=-4$ | $0+8=8$

$$AB=\begin{pmatrix} -4 & 9 & -4 \\ 2 & -6 & 8 \end{pmatrix}$$

$$BA = B_{2\times3} \cdot A_{2\times2} = \nexists$$
$$\neq$$

2- $15+2+4=21$ | $21+4+(-12)=13$
$-10+(-6)+0=-16$ | $-14+(-12)+0=-26$

$$AB=\begin{pmatrix} 21 & -16 \\ 13 & -26 \end{pmatrix}$$

data

$15+(-14)=1$	$5+(-21)=-16$	$-20+0=-20$
$6+(-8)=-2$	$2+(-12)=-10$	$-8+0=-8$
$-3+(-6)=-9$	$-1+(-9)=-10$	$4+0=4$

$$BA=\begin{pmatrix} 1 & -2 & -9 \\ -16 & -10 & -10 \\ -20 & -8 & 4 \end{pmatrix}$$

3- $A=\begin{pmatrix} -1 & 0 \\ 1 & 2 \end{pmatrix}$ e $A^t=\begin{pmatrix} -1 & 1 \\ 0 & 2 \end{pmatrix}$

$1+0=1$	$-1+0=-1$
$-1+0=-1$	$1+4=5$

$$A.A^t=\begin{pmatrix} 1 & -1 \\ -1 & 5 \end{pmatrix}$$

Letra (B)

4- $A = \begin{pmatrix} 1 & 2 & 5 \\ 3 & 4 & 6 \end{pmatrix}$ e $B = \begin{pmatrix} 1 \\ 2 \\ 3 \end{pmatrix}$

$1 + 4 + 15 = 20$ | $3 + 8 + 18 = 29$

$C = \begin{pmatrix} 20 \\ 29 \end{pmatrix}$ Letra (A)

5- a) $= \begin{pmatrix} 25 & 50 & 200 & 20 \\ 28 & 60 & 150 & 22 \end{pmatrix}$

$= \begin{pmatrix} 1,00 & 1,00 \\ 8,00 & 10,00 \\ 0,90 & 0,80 \\ 1,50 & 1,00 \end{pmatrix}$

$25 + 400 + 180 + 30 = 635$
$25 + 500 + 160 + 20 = 705$

$28 + 480 + 135 + 33 = 676$
$28 + 600 + 120 + 22 = 770$

$$= \begin{pmatrix} 635 & 705 \\ 676 & 770 \end{pmatrix}$$

$705 - 635 = 70$
$770 - 676 = 94$

$70 + 94 = 164$

R$ 164,00

6- $\begin{pmatrix} 0 & -1 \\ a & 1 \end{pmatrix} \begin{pmatrix} a & 1 \\ -1 & 0 \end{pmatrix} = \begin{pmatrix} 1 & 0 \\ a^2-1 & a \end{pmatrix}$

$0 + 1 = 1$
$0 + 0 = 0$

$a^2 + (-1) = a^2 - 1$
$a + 0 = a$

$$\begin{pmatrix} 1 & 0 \\ a^2-1 & a \end{pmatrix} = \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix}$$

$a = 1$