

Problema 2

Calcule os determinantes:

$$\text{a) } \begin{vmatrix} 4 & 3 \\ 1 & 5 \end{vmatrix}$$

$$\text{b) } \begin{vmatrix} 2 & -3 & -1 \\ -1 & -5 & 3 \\ 1 & 1 & 1 \end{vmatrix}$$

Resolução:

$$\text{a) } \begin{vmatrix} 4 & 3 \\ 1 & 5 \end{vmatrix}$$

$$\begin{aligned} D &= 4 \cdot 5 - 3 \cdot 1 \\ D &= 20 - 3 \\ D &= 17 \end{aligned}$$

$$D = 17$$

$$\text{b) } \begin{vmatrix} 2 & -3 & -1 \\ -1 & -5 & 3 \\ 1 & 1 & 1 \end{vmatrix}$$

$$\begin{aligned} D &= (2 \cdot -5 \cdot 1) + (-3 \cdot 3 \cdot 1) + (-1 \cdot -1 \cdot 1) - (-1 \cdot -5 \cdot 1) - (2 \cdot 3 \cdot 1) - (-3 \cdot -1 \cdot 1) \\ D &= -10 - 9 + 1 - (5) - (6) - (3) \\ D &= -10 - 9 + 1 - 5 - 6 - 3 \\ D &= -32 \end{aligned}$$

$$D = -32$$

by fernandopaim@paim.pro.br