C) Determinate de una matriz

1)

$$A = \begin{bmatrix} 6 & -7 \\ 4 & 2 \end{bmatrix}$$

$$\det(A) = \begin{vmatrix} 6 & -7 \\ 4 & 2 \end{vmatrix} = (6)(2) - (4)(-7)$$

$$\det(A) = 40$$

2)

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

$$\det(B) = \begin{vmatrix} 5 & 2 & 4 & 5 & 2 \\ -1 & 5 & 3 & -1 & 5 \\ 6 & 3 & -2 & 6 & 3 \end{vmatrix} = \begin{array}{l}(5)(5)(-2) + (2)(3)(6) + (4)(-1)(3) - \\ (2)(-1)(-2) - (5)(3)(3) - (4)(5)(6)\end{array}$$

$$\det(B) = -50 + 36 - 12 - 4 - 45 - 120$$

$$\det(B) = -195$$