Ejercicio 2

a) $\begin{bmatrix} a_{11} & a_{12} \\ a_{21} & a_{22} \end{bmatrix} \implies E = \begin{bmatrix} 0 & 5 \\ 0 & 0 \end{bmatrix} \rightarrow a_{12} \rightarrow \begin{array}{l} i = 1 \\ j = 2 \end{array} \quad \begin{array}{l} e_{ij} = i + 2j \\ e_{ij} = 1 + 2 \cdot 2 \\ e_{ij} = 5 \end{array}$

b) $\begin{bmatrix} a_{11} & a_{12} & a_{13} \\ a_{21} & a_{22} & a_{23} \\ a_{31} & a_{32} & a_{33} \end{bmatrix} \implies D = \begin{bmatrix} (-2)^1 & 0 & 0 \\ (-2)^1 & (-2)^2 & 0 \\ (-2)^1 & (-2)^2 & (-2)^3 \end{bmatrix} \quad D = \begin{bmatrix} -2 & 0 & 0 \\ -2 & 4 & 0 \\ -2 & 4 & -8 \end{bmatrix}$