

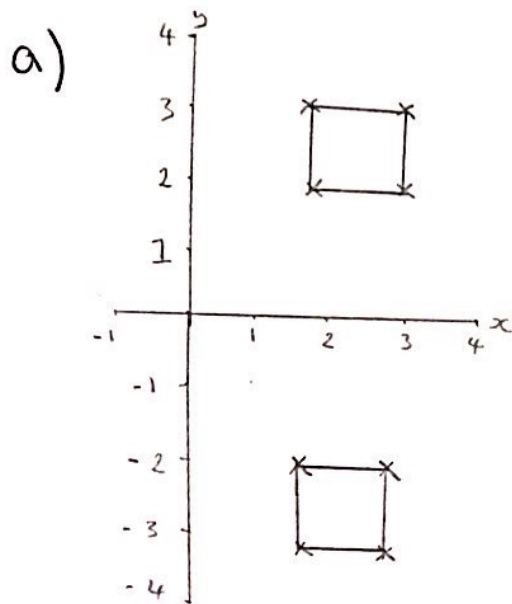
2X2 MATRIX TRANSFORMATIONS

ANSWER SHEET

Exercise 1:

- a) reflection in the x -axis
- b) reflection in the line $y = -x$
- c) reflection in the line $y = x$
- d) reflection in the y -axis

Exercise 2:

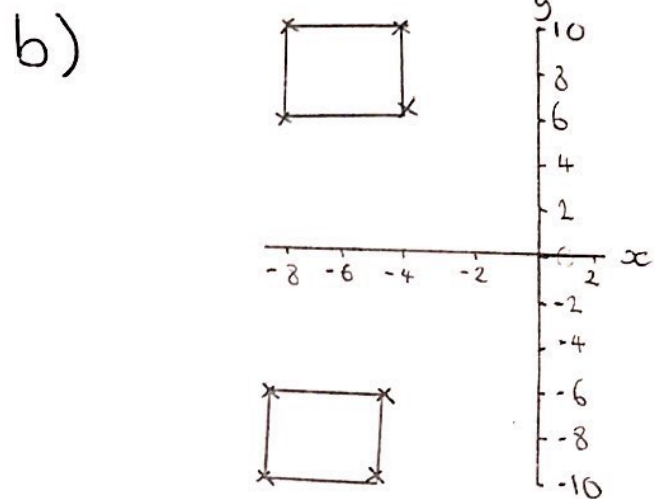


$$\begin{pmatrix} 2 \\ 2 \end{pmatrix} \begin{pmatrix} 1 & 0 \\ 0 & -1 \end{pmatrix} = \begin{pmatrix} 2 \\ -2 \end{pmatrix}$$

$$\begin{pmatrix} 3 \\ 3 \end{pmatrix} \begin{pmatrix} 1 & 0 \\ 0 & -1 \end{pmatrix} = \begin{pmatrix} 3 \\ -3 \end{pmatrix}$$

$$\begin{pmatrix} 3 \\ 2 \end{pmatrix} \begin{pmatrix} 1 & 0 \\ 0 & -1 \end{pmatrix} = \begin{pmatrix} 3 \\ -2 \end{pmatrix}$$

$$\begin{pmatrix} 2 \\ 3 \end{pmatrix} \begin{pmatrix} 1 & 0 \\ 0 & -1 \end{pmatrix} = \begin{pmatrix} 2 \\ -3 \end{pmatrix}$$



$$\begin{pmatrix} -4 \\ -10 \end{pmatrix} \begin{pmatrix} 1 & 0 \\ 0 & -1 \end{pmatrix} = \begin{pmatrix} -4 \\ 10 \end{pmatrix}$$

$$\begin{pmatrix} -4 \\ -6 \end{pmatrix} \begin{pmatrix} 1 & 0 \\ 0 & -1 \end{pmatrix} = \begin{pmatrix} -4 \\ 6 \end{pmatrix}$$

$$\begin{pmatrix} -8 \\ -10 \end{pmatrix} \begin{pmatrix} 1 & 0 \\ 0 & -1 \end{pmatrix} = \begin{pmatrix} -8 \\ 10 \end{pmatrix}$$

$$\begin{pmatrix} -8 \\ -6 \end{pmatrix} \begin{pmatrix} 1 & 0 \\ 0 & -1 \end{pmatrix} = \begin{pmatrix} -8 \\ 6 \end{pmatrix}$$