



Q1 :-in the following points show the image of it after the transformations on the graph . (10 marks)

a- $A(-1,3)$ $\left\{ \begin{array}{l} 1: \text{reflection on } x_axis \\ 2: \text{shift 3 unit up} \\ 3: \text{shift 3 unit left} \end{array} \right\}$

b- $B(3,5)$ $\left\{ \begin{array}{l} 1: \text{shift 2 unit to the right} \\ 2: \text{shift 4 unit down} \\ 3: \text{refelction in } y_axis \end{array} \right\}$

c- $C(-2,-2)$ $\left\{ \begin{array}{l} 1: \text{reflection on } x_axis \\ 2: \text{reflection on } y_axis \end{array} \right\}$

d- $D(3,1)$ $\left\{ \begin{array}{l} 1: \text{reflection on } x_axis \\ 2: \text{shift 4 unit down} \\ 3: \text{shift 2 unit left} \end{array} \right\}$

e- $E(9,-11)$ $\left\{ \begin{array}{l} 1: \text{shift 8 unit left} \\ 2: \text{reflection on } y \end{array} \right\}$



Q2:- in this linear function after

(10 marks)

a- $f(x) = 3x + 1$

$$\left\{ \begin{array}{l} 1: \text{shift 2 unit to the right} \\ 2: \text{shift 4 unit down} \\ 3: \text{refelction in } y_axis \end{array} \right\}$$

Draw the line and the image on graph ,

Find out:

- 1- the slope of the new line
- 2- the equation of it

b - $f(x) = \frac{1}{2}x - 2$

$$\left\{ \begin{array}{l} 1: \text{reflection on } x_axis \\ 2: \text{shift 3 unit up} \\ 3: \text{shift 3 unit left} \end{array} \right\}$$

Draw the line and the image on graph ,

Find out:

- 1- the slope of the new line
- 2- the equation of it

note :- show me your work on your note book on Wednesday