

Worksheet 2015-8EI-00001(1)

- (1) Draw a Cartesian plane and represent the following points on the plane. Join the points.

A(-2 ; 5) ; B(0 ; 1) ; C(1 ; 2) and D(2 ; 5)

(Use the graph paper.)

- (2) Complete the tables and represent the point on a Cartesian plane:

Join the points. (Use the graph paper.)

(a) $y = x - 1$

x	-1	0	1	2	3
y	-2	-1	0	1	2

$$y = x - 1 \rightarrow y = (-1) - 1 = -1 - 1 = -2$$

$$y = x - 1 \rightarrow y = (0) - 1 = 0 - 1 = -1$$

$$y = x - 1 \rightarrow y = (1) - 1 = 1 - 1 = 0$$

$$y = x - 1 \rightarrow y = (2) - 1 = 2 - 1 = 1$$

$$y = x - 1 \rightarrow y = (3) - 1 = 3 - 1 = 2$$

(b) $y = \frac{x}{2} + 2$

x	-4	-2	0	2	4	6
y	0	1	2	3	4	5

$$y = \frac{x}{2} + 2 \rightarrow y = \frac{-4}{2} + 2 = -2 + 2 = 0$$

$$y = \frac{x}{2} + 2 \rightarrow y = \frac{-2}{2} + 2 = -1 + 2 = 1$$

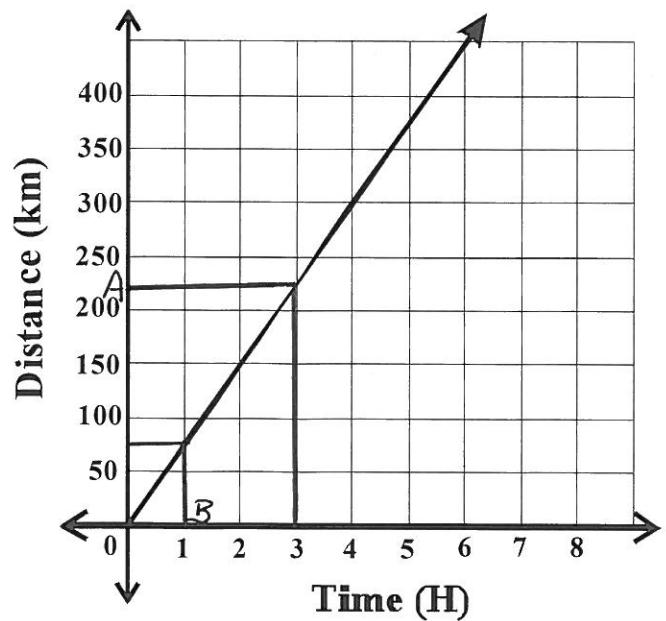
$$y = \frac{x}{2} + 2 \rightarrow y = \frac{0}{2} + 2 = 0 + 2 = 2$$

$$y = \frac{x}{2} + 2 \rightarrow y = \frac{2}{2} + 2 = 1 + 2 = 3$$

$$y = \frac{x}{2} + 2 \rightarrow y = \frac{4}{2} + 2 = 2 + 2 = 4$$

$$y = \frac{x}{2} + 2 \rightarrow y = \frac{6}{2} + 2 = 3 + 2 = 5$$

(3) The graph shows the distance travelled in km by a motorist after a certain number of hours.



(a) How many km have been travelled in 3 hours?

225 km at A

(b) How many hours will it take to travel a distance of 75 km?

1 H at B

(c) Calculate the average speed of the motorist.

75 km in 1 H
→ 75 km/H

(d) Predict the distance travelled by the motorist in 12 hours if the average speed is maintained.

3 H → 225 km (See A) ∴ $4 \times 3 \text{ H} = 225 \text{ km} \times 4 = 900 \text{ km}$

(e) Does the graph show an increasing or decreasing tendency?

Increasing tendency

(4) The following pairs of coordinates represent the same points on the Cartesian plane. Is the statements true or false?

(a) P(3 ; 4) and Q(4 ; 3)

False

(b) A(5 ; 1) and B($\frac{10}{2}$; 1)

True $\rightarrow (5; 1)$

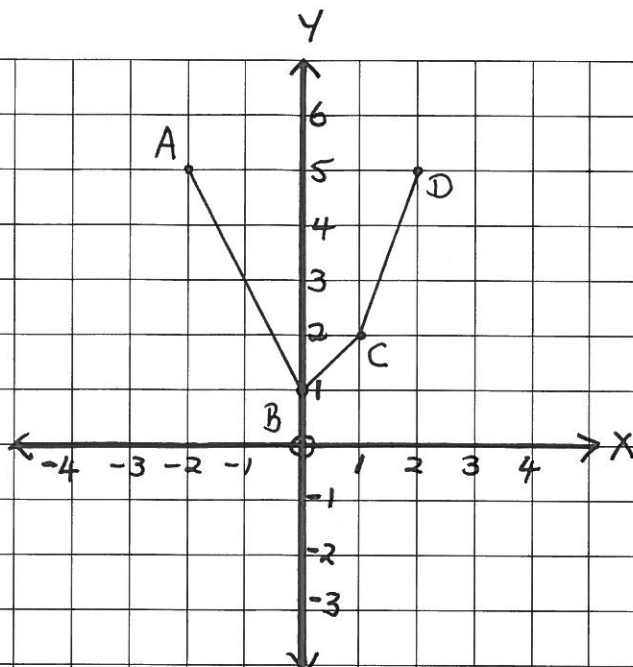
(c) C(-7 ; 8) and (7 ; -8)

False

(d) (0 ; 0) and the origin

True

(1) .



(2) (a)
(b)

