LATEX ASSIGNMENT

ANAND

17-08-2023

EXERCISE 9.4.2

1. Draw the graph of each of the following linear equations in two variables:

   (i) $x + y = 4$

   (ii) $x - y = 2$

   (iii) $y = 3x$

   (iv) $3 = 2x + y$

2. Give the equations of two lines passing through (2,14).How many more such lines are there and why?

3. If the point(3,4) lies on the graph of the equation $3y = ax + 7$ find the value of a

4. The taxi fare in the city is as follows:for te first kilometre,the fare is ₹ 8 and for the subsquent distance is ₹ 5 per km.Taking the distance Covered as x km and total fare as ₹ y.Write a linear equation for this information,and draw its graph.

5. From the choices given below,choose the equation whose graphs are given Fig 4.6 Fig 4.7
   For fig-4.6

   (i) $y = x$

   (ii) $x + y = 0$

   (iii) $y = 2x$

   (iv) $2 + 3y = 7x$

   For fig-4.7

   (i) $y = x + 2$

   (ii) $y = x - 2$

   (iii) $y = -x + 2$

   (iv) $x + 2y = 6$

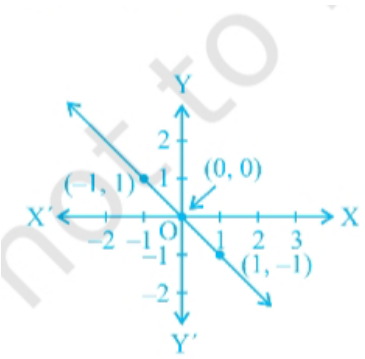

Fig. 4.6

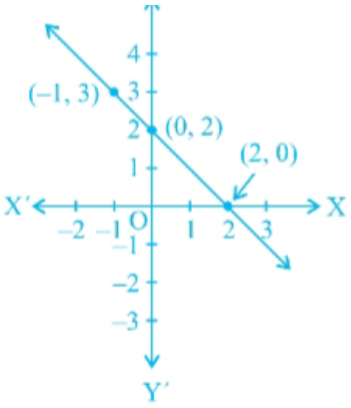

Fig. 4.7

Figure 1: Graph

6. If the work done by a body of a constant force is directly proportional to the distance travelled by the body,express this in the form of an equation and draw the graph of the same by taking the varables and draw the graph of the same by taking the constant force as 5*units*.Also read from the graph the work done when the distance travelled by the body is

   (i) 2Units

   (ii) 0Unit

7. Yamini and Fatima,two students of class IX of a school,together contributed ₹ 100 towards the prime minister's reief fund to help the earhquake victims.Write a linear equation which satisfies this data. (you may take their contributions ₹ x and ₹ y.Draw the graph of the same.

8. In Countries like USA and Canada temperature is measured in Celsius. Here is a linear equation that converts Farenheit to celsius: $F = \frac{9}{5}C + 32$

   (i) Draw the graph of the linear equation above using Celsius for x axis and Farenheit for y axis

   (ii) If the temperature is $30°C$,what is the temperature in farenheight?

   (iii) If the temperature is $95°F$,what is the temperature in celsius?

   (iv) If the temperature is $0°C$.What is the temperature in Farenheit and if the temperature in celsius?

   (v) Is there a temperature Which is numerically same in both Farenheit and Celsius? If yes find it.