Codeyoung

Application_Grade-9_ Two Variable Linear Equation

Graphical Methods

1. Two friends Sita and Gita, together contributed 200 towards Prime Minister's Relief Fund. Write a linear equation which satisfies this data. Draw the graph.

2. Fahrenheit (F) and Celsius (C) are two different units of temperature and the relation between them is given by $C = \frac{5}{9}$ (F-32). Draw the graph for this relation at what temperature both units read the same also find temperature in°C which is equal to 30 °F

3. The auto rickshaw fare in a city is charged $10 for first kilometre and @ $4 per kilometre for subsequent distance covered. Write the linear equation to express the above statement. Draw the graph of the linear equation.

4. Draw the graph of linear equations x + y = 10 and 2x-y=5 and find the point of intersection.

5. The taxi fare in a city is as follows :
    For the first kilometre, the fare is $8 and for the subsequent distance it is $5 per km. Taking distance covered as x km and the total fare as $ y Write a linear equation for this information and draw its graph.

6. A student Amit of grade 9 is unable to write in his examination, due to fracture in his arm. Akhil a student of grade 6 writes for him. The sum of their ages is 25 years.
   (i) Write a linear equation for the above situation and represent it graphically.
   (ii) Find the age of Akhil from the graph, when age of Amit is 14 years

7. Draw the graphs of the following equations on same graph sheet: x = 0, y = 0, x + y = 3, also find the area enclosed between these lines.

8. Given below a linear equation that converts Fahrenheit to Celsius and vice-versa.

$$F = \frac{9}{5}C + 32$$

   i) If the temperature is 30°C, what is the temperature in Fahrenheit?

   ii) It the temperature is 95°F, what is the temperature in Celsius?

   iii) If the temperature is 0°C, what is the temperature in Fahrenheit and if the temperature is 0°E, what is the temperature in Celsius ?

   iv) Is there a temperature which is numerically the same in both Fahrenheit and Celsius? If yes, find it