

# REVISION SHEET 2 CH 4 IX

Standard: 9th

Subject: Mathematics

**Q1.** Draw the graph of the line  $4x + 3y = 24$ .

1. Write the coordinates of the point where this line intersects the x-axis and the y-axis.
2. Use this graph to find the area of the triangle formed by the graph line and the coordinate axes.

**Q2.** The path of a train A is given by the equation  $3x + 4y - 12 = 0$  and the path of another train B is given by the equation  $6x + 8y - 48 = 0$ . Represent this situation graphically.

**Q3.** Write the equation of a line parallel to y-axis and passing through the point  $(-3, -7)$ .

**Q4.** Give the geometric representations of the following equations:

1. On the number line.
2. On the Cartesian plane.

$$x = 2$$

**Q5.** Express the following equation in the form  $ax + by + c = 0$  and indicate the values of a, b, c in case.

$$3y - 2x = 6$$

**Q6.** Find five different solutions of the following equations:

$$3y = 4x$$

**Q7.** Express the following equation in the form  $ax + by + c = 0$  and indicate the values of a, b, c in case.

$$3x - y = x - 1$$

**Q8.** If the point  $(2, -2)$  lies on the graph of the linear equation  $5x + ky = 4$ , find the value of k.

**Q9.** Express the following equation in the form  $ax + by + c = 0$  and indicate the values of a, b, c in case.

$$x + y = 4$$

**Q10.** If  $x = -1, y = 2$  is a solution of the equation  $3x + 4y = k$ , find the value of k.

**Q11.** If  $x = 3$  and  $y = 4$  is a solution of the equation  $5x - 3y = k$ , find the value of k.

**Q12.** Check the following are the solutions of the equation  $5x - 4y = 20$ .

$$(0, 5)$$

**Q13.** Check the following are solutions of the equation  $2x - y = 6$  and which are not:

$$(0, 6)$$

**Q14.** Find the value of k for which the point  $(1, -2)$  lies on the graph of the linear equation

$$x - 2y + k = 0.$$

**Q15.** If  $x = 1$  and  $y = 6$  is a solution of the equation  $8x - ay + a^2 = 0$ , find the values of a.

**Q16.** If  $x = 2a + 1$  and  $y = a - 1$  is a solution of the equation  $2x - 3y + 5 = 0$ , find the value of a.

**Q17.** If the point  $(a, 2)$  lies on the graph of the linear equation  $2x - 3y + 8 = 0$ , find the value of a.

**Q18.** Draw the graph of the equation,  $3x + 2y = 6$ .

Find the coordinates of the point where the graph cuts the y-axis.

**Q19.** Write two solutions for the following equations:

$$3x - 4y = 7$$

**Q20.** Ravish tells his daughter Aarushi, "Seven years ago, I was seven times as old as you were then. Also, three years from now, I shall be three times as old as you will be".. If present ages of Aarushi and Ravish are x and y years respectively, represent this situation algebraically as well as graphically.