TOPIC: LINEAR EQUATIONS IN TWO VARIABLES **CLASS: IX**

1. **Find two solutions of the linear equation 5x – 4y = - 8**
2. **Draw the graph of the linear equation 2x + 3y = 12. At what points the graph of the equation cuts the x – axis and the y axis**
3. **Draw the graphs of the equations x + y = 6 and 2x + 3y = 16 on the same graph paper. Find the coordinates of the points where the two lines intersect**
4. **Draw the graph of the following equation 2(x + 1) = 3 (y – 1) – 4 and check whether the point (3, -1) lies on the line**
5. **Draw the graph of y = - 5 and y = 5 on the same graph. Are the lines parallel? Find the point of intersection of two lines**
6. **The taxi fare in a city is such that Rs 50 is fixed amount and Rs 16 per km is charged. Taking the distance covered as x km and total fare as Rs y, write a linear equation in x and y**
7. **If present age of son and father are expressed by x and y respectively and after ten years father will be twice as old as his son. Write the relation between x and y**
8. **If the cost of 5 tables exceeds the cost of eight chairs by Rs. 150. Write the linear equation in two variables to represent the statement. Also find the cost of 1 table if the cost of one chair is RS. 240**
9. **Give the geometric representation of 2x + 1 = x – 4 as an equation in (a)one variable (b) two variable**
10. **Give the equation of two lines passing throw (2, 14). How many more such lines are there and why**
11. **If (2, 5) is a solution of the equation 2x + 3y = m, find the value of m (m = 19)**
12. **For what value of k does the point (k, -3) lies on the line 3x – y = 6 (k = 1)**
13. **Write 13x -12y = 25 as y= mx + c. Hence find m and c. Verify if x = 1, y = 1 is a solution (m= 13/12, c = - 25/12)**
14. **If (2, 3) and (4, 0) lie on the graph of the equation ax + by = 1. Find the value of a and b. Plot the graph of the equation obtained (a =1/4, b = 1/6)**
15. **Express y in terms of x, given that x/5 + 2y = 3. Check whether (-5, 2) is asolution of the given equation**
16. **Write each of the following as an equation in two variables (in standard form):**
    (a) x = - 5 (b) y = 2 (c) 2x = 3 (d) 5y = 2
16. **Frame a linear equation in the form ax + by + c = 0 by using the given values of a, b and c : a = -2 , b = 3, c = 4**

17. Solve for x : a) $\frac{(3x + 2)}{7} + \frac{4(x + 1)}{5} = \frac{2(2x + 1)}{3}$ **(x = 4)**

b) 8x + 21/4 = 3x+ 7 **(7/20)**

19. Graph of linear equation 4x = 5 in a plane is parallel to …….axis

20. When the linear equation 2x = 3/8(y – 1) is written in the standard form ax + by + c = 0 Then a, b, c are …….. , …… and ……

21. The geometric representation of 2y + 5 = 0 in two variables is a straight line parallel to …….. axis

22. Coefficient of y in the equation: 3(2x -1/3y) = 0 is equal to

a) 3 b) 1 c)-3 d)-1

23. Alinear equation in two variable has a) infinitely manysolution b) unique solution c) no solution d) none of these

24. Which of the following pair is a solution of the equation 2x – 3y = 7

a) (5,-1) b) (1, 5) c) (0, 2) d) none of these

25. The equation of a line passing through the origin is of the form

a) y = k x b) x + y = k c) x – y = k d) none of these

26. Any point on y axis is of the form

a) (x, 0) b) (0, y) c) (y, 0) d) none of these

27. The graph of y = mx is a straight line:

a) parallel to x axis b) parallel to y axis c) passing throw origin d) coincides with x – axis

28. For the equation 5x + 8y = 50, if y = 10, then the value of x is

a) 6 b) – 6 c) 12 d) – 12

29. The equation x = 7, in two variables can be written as:

a) 1x +1 y = 7 b) 1x + 0y = 7 c) 0x + 1y = 7 d) 0x + 0y =7

30. Equation of line parallel to x – axis and 2 – units above the originis:

a) x = 2 b) x = -2 c) y = 2 d) y = -2

31. Which of the following is not a form of linear equation in two variables?

a) ax +by + c = 0 b) ax + 0y + b = 0 d)0x + ay + b = 0 d) 0x + 0y + 5 = 0