



Name:

Date:

Areas of Improvement:

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Total Marks	24
Marks Obtained	
%	

Parent 1Signature	



Section A:

Short Answer Questions:

[1 x 12 = 12]

1. Express $x/4 - 3y = -7$ in the form of $ax + by + c = 0$.
2. Express each of the following equations in the form of $ax + by + c = 0$ and write the values of a , b , and c .

$$x - 5 = \sqrt{3}y$$

3. If $(1, -2)$ is a solution of the equation $2x - y = p$, then find the value of p .
4. Find the point on the x -axis from where the graph of the linear equation $x - 5y = 3$ will pass.

5. A linear equation in two variables is of the form $px + qy + r = 0$ where

- A. $p \neq 0, q \neq 0$ B. $p = 0, q \neq 0$ C. $p \neq 0, q = 0$ D. $p = 0, r = 0$

6. The equation $x = 7$ can be written in two variables x, y as

- A. $0.x + 0.y = 7$
B. $1.x + 0.y = 7$
C. $1.x + 1.y = 7$
D. $0.x + 1.y = 7$
E.

7. The equation $2x + 5y = 7$ has a unique solution, if x, y are

- (a) Natural number (b) Positive real numbers
(c) Real numbers (d) Rational numbers

8. Find the area of a triangle formed between the x -axis, y -axis, and the line

$$(x + y = -7)$$

- (a) 24.5 units (b) 49 units (c) 14 units (d) 21 units



9. Which of the points does not lie on x-axis or y-axis

- (a) (10,0) (b) (10,-10) (c) (0,1) (d) (-1,0)

10. if $ax + 3y = 25$ and $y = 1$ find value of x

11. Find whether (a,a) lies on the lines $y - x = 0$ or not.

12: If $x = 2\alpha + 1$ and $y = \alpha - 1$ is a solution of the equation $2x - 3y + 5 = 0$, find the value of α .

Section B

Answer the following questions (any 3 questions only)

[2 x 3 = 6]

Q1. Represent $2x + 3y = 6$ by a graph. Write the coordinates of the point where it meets:

- (a) x-axis (b) y-axis

Q2. If $(2,3)$ and $(4, 0)$ lie on the graph of equation $ax + by = 1$. Find the value of a and b . Plot the graph of the equation obtained.

Q3. Show that the points $A (1, 2)$, $B (-1, -16)$, and $C (0, -7)$ lie on the graph of the linear equation $y = 9x - 7$.

Q4: Check which of the following are solutions of the equation $2x - y = 6$ and which are not:

- (i) $(3, 0)$ (ii) $(0, 6)$ (iii) $(2, -2)$ (iv) $(\sqrt{3}, 0)$ (v) $(1/2, -5)$

Section C

Long Answer Questions (any 2 questions only)

[3 x 2 = 6]

Q5. The cost of 5 kg apples and 2 kg oranges is Rs. 330. Let the cost of 1 kg apples be Rs. x and that of 1 kg be Rs. y . Write the given data in the form of a linear equation in two variables. Also, represent it graphically.



Q6. Draw the graph of the equation $y = mx + c$ for $m = 3$ and $c = -1$ (a straight line in a Cartesian plane). Read from the graph the value of y when $x = 2$.

Q7. If the number of hours for which a laborer works is x and y are his wages (in rupees) and $y = 2x - 1$, then draw the graph of the work-wages equation. From the graph, find the wages of the labourer if he works for 6 hours.

Q8: From the choices given below, choose the equations whose graph is given in the figure.

(i) $y = x$

(ii) $x + y = 0$

(iii) $y = 2x$

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

