

## INDIAN SCHOOL AL WADI AL KABIR

Class IX, Mathematics *Worksheet- LINEAR EQUATIONS* 18-09-2021

## **OBJECTIVE TYPE (1 Mark)** Q.1. Any point on the line y = x, is of the form: $\mathbf{C}$ (a, a) B (0, a)(a,0)D (a, -a) **Q.2.** x = 5, y = 2 is a solution of the linear equation: 5 x + 2 y = 7x + 2 y = 7B $\mathbf{C}$ D 5 x + y = 7x + y = 72 = -y can be expressed in the form ax + by + c = 0Q.3. y + 0.x + 3 = 0 $\mathbf{C} = 0.x + 1.y - 2 = 0$ 0.x + 1.y + 2 = 0A y + 2 = 0B D If (3, 2) is a solution of the equation 3x - py - 7 = 0, then the value of p is: **Q.4. -** 1 $\mathbf{C}$ 2 A B 1 D If (a, 1) lies on the graph of 3x - 2y + 4 = 0, then the value of a is: Q.5. B $\mathbf{C}$ D A **Q.6.** Age of a father is 7 years more than 3 times the present age of his son. The above statement can be expressed in a linear equation as: x + 3y + 7 = 0 | C x - 3y - 7 = 0В x + 3y - 7 = 0D x - 3y + 7 = 0If (20, -a) lies on '1' whose graph is given, then the value of a is: Q.7. A -10 B 5 $\mathbf{C}$ - 5 D 10

| <b>Q.8.</b>    | Abscissa of all points on the y -axis is:   |  |              |  |            |                           |                |                   |  |  |  |  |
|----------------|---|--|--------------|--|------------|---------------------------|----------------|-------------------|--|--|--|--|
|                | A   | 1  | В            | 0  | C          | -1                        | D              | None of these     |  |  |  |  |
| Q.9.           | The linear equation $3 \times 2y$ when expressed in the form $ax + by + c = 0$ , then a, b and c respectively:                              |  |              |  |            |                           |                |                   |  |  |  |  |
|                | A   | 3, 2, 0  | В            | 3, 2, 1  | C          | 3, -2, 0                  | D              | 3, -2, 1          |  |  |  |  |
| Q.10.          | • Which of the following equations represents a line parallel to y -axis?   |  |              |  |            |                           |                |                   |  |  |  |  |
|                | A   | 2y = 5x  | В            | 2y = 5   | C          | 2x = 5                    | D              | 2x + 3y = 5       |  |  |  |  |
| Q.11.          | Richa had 10 chocolates, let her brother borrowed y chocolates from her and then Richa had chocolates. Which equation models this solution? |  |              |  |            |                           |                |                   |  |  |  |  |
|                | A   | 10 - y = 4   | В            | 10 + y = 4   | C          | $10 \ y = 4$              | D              | 4y = 10           |  |  |  |  |
|                | 5<br>4<br>3<br>2<br>(2, 2)<br>1<br>1<br>(-2, -1)<br>-3<br>-3<br>-4  |  |              |  |            |                           |                |                   |  |  |  |  |
|                | <b>∢</b><br>X′  | 5 -4 -3 -2 1 0<br>-1 (-2, -1) -2 -3  | 1 2          | 3 4 5 X  |            |                           |                |                   |  |  |  |  |
|                | *:-   | 5 -4 -3 -2 1 0<br>-1 (-2, -1) -2 -3  | 1 2<br>B     | y - 2x = 3   | C          | 8y - 6x = 4               | D              | 5y - 6x = 4       |  |  |  |  |
| Q.13.          | A   | -5 -4 -3 -2 1 0<br>-2 -1 -1<br>(-2, -1) -2<br>-3 -4<br>-5 -5   | B            | y - 2x = 3   |            | ,                         |                | 5y - 6x = 4       |  |  |  |  |
| Q.13.          | A   | $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | B            | y - 2x = 3   |            | ,                         |                | 5y - 6x = 4 Three |  |  |  |  |
| Q.13.<br>Q.14. | <b>A</b> Ho <b>A</b>  | 3x - 7y = 10  we many linear equations of the second sequence of the sequence of the second sequence of the sequence of the second sequence of the second sequence of the sequence of the second sequence of the sequence | B ation in B | y - 2x = 3 x and y can be sat  Two                                       | isfie      | ed by $x = 1$ and $y = 1$ | 2?             |                   |  |  |  |  |
|                | <b>A</b> Ho <b>A</b>  | 3x - 7y = 10 Only one  | B ation in B | y - 2x = 3 x and y can be sat  Two                                       | isfie      | ed by $x = 1$ and $y = 1$ | 2?             |                   |  |  |  |  |
|                | A Ho A Sol  | 3x - 7y = 10 Only one  Substitution of linear equals and the substitution of linear equals are substitution.   | B ation 22 B | y - 2x = 3 $x  and y can be sat$ $Two$ $x + 0.y + 9 = 0  is$ $(n, -9/2)$ | isfie<br>C | ed by $x = 1$ and $y = 1$ | 2?<br><b>D</b> | Three             |  |  |  |  |

## **CASE STUDY:** Prime Minister's National relief fund is the fund raised to provide support for people affected by **O21.** natural and man-made disasters. Natural disasters that are covered under this include flood, cyclone. earth quake etc. Man-made disasters that are included are major accidents, acid attacks, riots etc. Prime Minister's National Relief Fund (PMNRF) Two friends Sita and Gita together contributed ₹.200 towards PMNF. Answer the following questions: Which of the following is not the linear equation in two variables: I) $x^2 + x = 1$ A 2x = 3B $\mathbf{C}$ 4 = 5x - 4yD $x - \sqrt{2} y = 3$ II) How to represent the above situations in linear equations in two variables? 2x + y = 200B x + y = 200 $\mathbf{C}$ 220 x = yD 200 + x = yA III) If Sita contributed Rs. 76, then how much was contributed by Gita? $\mathbf{C}$ A ₹120 B ₹124 ₹123 D ₹125 IV) If both contributed equally, then how much is contributed by each? ₹ 50, ₹ 50 B ₹100, ₹100 $\mathbf{C}$ ₹120, ₹120 ₹200, ₹200 D A

\*\*\*\*\*

C

1.x + 0.y + 5 = 0

D

1.x+0.y = 5

Which is the standard form of the linear equation x = -5

1.x - 5 = 0

В

x + 5 = 0

V)

A

| Answers | 1  | A | 2  | С | 3  | D | 4   | В                                |
|---------|----|---|----|---|----|---|-----|----------------------------------|
|         | 5  | A | 6  | A | 7  | С | 8   | В                                |
|         | 9  | С | 10 | С | 11 | A | 12  | С                                |
|         | 13 | С | 14 | D | 15 | С | 16. | I-C, II- B<br>III-B, IV-B<br>V-C |