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Class: IX
Subject: Math's
Topic: Linear equation in two variables
No. of Questions: 20
Duration: 60 Min
Maximum Marks: 60

Q1 The linear equation 2x -5y =7 has

(a) A unique solution
(b) Two solutions
(c) Infinitely many solutions
(d) No solution

Ans. C

One equation and two variables it always ends up infinitely many solutions

Q2 Which of the following expressions is a linear expression in one variable?

(a) $x^2 + 1$
(b) x + 2y
(c) x^3
(d) 7x + 5

Sol. D

Right Answer Explanation:
Linear expression in one variable means that the expression should have only one variable and the degree of the expression should be one.

Q3 If (2, 0) is a solution of the linear equation 2x + 3y = k, then the value of k is.

(a) 4
(b) 6
(c) 5
(d) 2

Ans. A

Plug in the values in eq ^{n} 2(2) + 3(0) =k

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k= 4

Q4 Any solution of the linear equation 2x + 0y + 9 = 0 in two variables is of the form

(a) $(-\frac{9}{2}, m)$
(b) $(n, -\frac{9}{2})$
(c) $(0, -\frac{9}{2})$
(d) (-9, 0)

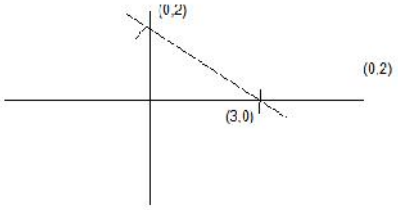
Ans. A

2X + 9 = 0 X= $-\frac{9}{2}$ Y = any real numbers

Q5 The graph of the linear equation 2x + 3y = 6 cuts the y-axis at the point

(a) (2, 0)
(b) (0, 3)
(c) (3, 0)
(d) (0, 2)

Ans. D it will intersect y axis at



Q6 The equation x = 7, in two variables, can be written as

(a) 1. x + 1. y = 7
(b) 1. X + 0. y = 7
(c) 0. x + 1. y = 7
(d) 0.x + 0. Y = 7

Ans. B

x = 7 can be writing as 1. X + 0.y = 7

Q7 Any point on the x axis is of the form

(a) (x, y)
(b) (0, y)
(c) (x, 0)
(d) (x, x)

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Ans. C any point on x –axis is (x,0)

Q8 Any point on the line y = x is of the form

(a) (a, a)
(b) (0, a)
(c) (a, 0)
(d) (a, – a)

Ans. A any point on y = x is (a, a)

Q9 The equation of x-axis is of the form

(a) x = 0
(b) y = 0
(c) x + y = 0
(d) x = y

Ans. B

$\sum n$ of x – axis B^{O} Y = 0

Q10 The graph of y = 6 is a line

(a) parallel to x-axis at a distance 6 units from the origin
(b) parallel to y-axis at a distance 6 units from the origin
(c) making an intercept 6 on the x-axis.
(d) Making an intercept 6 on both the axes.

Ans. A

it's a line parallel to x –axis and at a distance of 6 unites

Q11 x = 5, y = 2 is a solution of the linear equations

(a) x + 2y = 7
(b) 5x + 2y = 7
(c) x + y = 7
(d) 5x + y = 7

Ans. C

Put the values in es^{n} and get the answers

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Q12 If a linear equation has solution (-2, 2), (0, 0) and (2, -2), then it is of the form

(a) y – x = 0
(b) x + y = 0
(c) -2x + y = 0
(d) –x + 2y = 0

Ans. B

consider y = mx + c

2= -2m + c – 1

0 = 0 + c = 2 c = 0

M = -1

$\therefore y + x = 0$

Q13 The positive solutions of the equation $ax + by + c = 0$ always lie is the

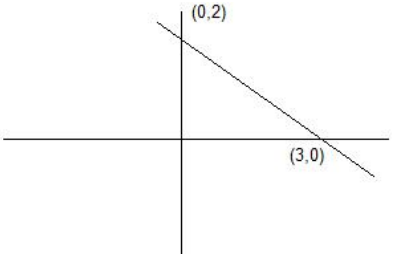
(a) 1st quadrant
(b) 2nd quadrant
(c) 3rd quadrant
(d) 4th quadrant

Ans. A

Positive solution occurs only in 1s quadrant

Q14 The graph of the linear equation 2x + 3y = 6 is a line which meets the x-axis is at the

(a) (0, 2)
(b) (2, 0)
(c) (3, 0)
(d) (0, 3)



Ans. C

Meets at x – axis at (3,0)

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Q15 The graph of the linear equations y = x passes through the point

(a) $\left(\frac{3}{2}, \frac{-3}{2}\right)$
(b) $\left(0, \frac{3}{2}\right)$
(c) (1, 1)
(d) $\left(\frac{-1}{2}, \frac{1}{2}\right)$

Ans. C) y = x passes through (a, a)

Q16 If we multiply or divide both side of a linear equations with a non-zero number,

Then the solution of the linear equation:

(a) Changes
(b) Remains the same
(c) Changes in case of multiplication only
(d) Changes in case of division only

Ans. B

It will remain same

Q17 How many linear equations in x and y can be satisfied by x =1 and y = 2?

(a) Only one
(b) Two
(c) Infinitely many
(d) Three

Ans. C

Infinitely many question can be found with given combination

Q18 Which of the following is a linear expression in two variables?

(a) $x + 2y^2 + 5$
(b) $x^2 + 2y + 5$
(c) $x - 2y^2 + 5$
(d) $x + \sqrt{y^2} + 5$

Sol. D
Explanations

A linear expression in two variables means that the expression should have two variables, and the degree of the expression should be one.

Q19 Which of the following is a solution of the equation $\frac{y-3}{7} = -2$?

(a) -11
(b) -17
(c) -14
(d) -13

Sol. A
Right Answer Explanation:

$\frac{y-3}{7} = -2$

$\Rightarrow$ y – 3 = -14

$\Rightarrow$ y = -14 + 3

$\Rightarrow$ y = -11

Q20 Which of the following options is the standard form of the linear equation 7x – 21 + 2y = 0?

(a) 21 + 2y + 7x = 0
(b) 2y + 7x – 21 = 0
(c) 7x – 21 + 2y = 0
(d) 7x + 2y – 21 = 0

Sol. D
Right Answer Explanation:
The equation that is in the standard form of the linear equation is 7x + 2y – 21 = 0.