

Linear Equations for Two Variables

Question 1.

A linear equation in two variables has maximum :

- (a) Only one solution
- (b) Two solution
- (c) Infinite solution
- (d) None of these

Answer: (c) Infinite solution

Question 2.

Solutions of the equation $2x + 5y = 0$ is:

- (a) 3,0
- (b) -3,2
- (c) 0,0
- (d) 0,4

Answer: (c) 0,0

Question 3.

All linear equations in two variables have ————— .

- (a) One solution
- (b) Infinitely many solutions
- (c) Three solutions
- (d) Two solution

Answer: (b) Infinitely many solutions

Question 4.

The equation of a line parallel to x-axis and 3 units above the origin is

- (a) $x = -3$
- (b) $x = 3$

- (c) $y = -3$
- (d) $y = 3$

Answer: (d) $y = 3$

Question 5.

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

Answer: (a) 4

Question 6.

The graph of $x = 3$ is a line:

- (a) Parallel to x-axis at a distance of 3 units from the origin
- (b) Parallel to y-axis at a distance of 3 units from the origin
- (c) Makes an intercept 3 on x-axis
- (d) Makes an intercept 3 on y-axis

Answer: (b) Parallel to y-axis at a distance of 3 units from the origin

Question 7.

$y = 0$ is the equation of

- (a) a line parallel to x-axis
- (b) a line parallel to y-axis
- (c) x-axis
- (d) y-axis

Answer: (b) a line parallel to y-axis

Question 8.

The value of k if $x = 2$, $y = 1$ is a solution of equation $2x - k = -3y$ is:

- (a) 6
- (b) 5
- (c) 7
- (d) -7

Answer: (c) 7

Question 9.

For two lines $2x + y = 1$ and $x - y = 2$ if the x coordinate of the common point is 1 what is the y coordinate?

- (a) -1
- (b) 2
- (c) -2
- (d) 3

Answer: (a) -1

Question 10.

Five years ago, A was thrice as old as B and ten years later, A shall be twice as old as B. What is the present age of A.

- (a) 20
- (b) 50
- (c) 60
- (d) 40

Answer: (b) 50

Question 11.

Rozly can row downstream 20km in 2 hours, and the upstream 4km in 2 hours. What will be the speed of rowing in still water?

- (a) 6 km/hr
- (b) 4 km/hr
- (c) 3 km/hr
- (d) 7 km/hr

Answer: (b) 4 km/hr

Question 12.

The graph of linear equation $x+2y = 2$, cuts the y-axis at:

- (a) (2,0)
- (b) (0,2)
- (c) (0,1)
- (d) (1,1)

Answer: (c) (0,1)

Question 13.

If the line represented by the equation $3x + \alpha y = 8$ passes through the points (2,2), then the value of α is

- (a) 0
- (b) 4
- (c) 3
- (d) 1

Answer: (d) 1

Question 14.

If $x = a$, $y = b$ is the solution of the pair of equation $x - y = 2$ and $x + y = 4$ then what will be value of a and b

- (a) 2,1
- (b) 3,1
- (c) 4,6
- (d) 1,2

Answer: (b) 3,1

Question 15.

The solution of the equation $x + y = 3$, $3x - 2y = 4$ is :

- (a) $x = 2$, $y = 1$
- (b) $x = 1$, $y = 2$
- (c) $x = -2$, $y = 1$
- (d) $x = -2$, $y = -1$

Answer: (a) $x = 2$, $y = 1$

Question 16.

The value of k if $x = 2$, $y = 1$ is a solution of equation $2x - k = -3y$ is

- (a) 7
- (b) -7
- (c) 6
- (d) 5

Answer: (a) 7

Question 17.

If x and y are both positive solutions of equation $ax + by + c = 0$, always lie in:

- (a) First quadrant
- (b) Second quadrant
- (c) Third quadrant
- (d) Fourth quadrant

Answer: (a) First quadrant

Question 18.

The linear equation $4x - 10y = 14$ has:

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

Answer: (c) Infinitely many solutions

Question 19.

An equation of the type _____ represents a line passing through the origin.

- (a) $y = m + x + 1$
- (b) $y = m + x$
- (c) $y = mx$
- (d) $x = m - y$

Answer: (c) $y = mx$

Question 20.

The point lying on the equation $2x - y = 5$ is:

- (a) (3, 4)
- (b) (-3, 1)
- (c) (6, 1)
- (d) (2, -1)

Answer: (d) (2, -1)

Question 21.

The sum of two digits and the number formed by interchanging its digit is 110. If ten is subtracted from the first number, the new number is 4 more than 5 times of the sum of the digits in the first number. Find the first number.

- (a) 46
- (b) 48

- (c) 64
- (d) 84

Answer: (c) 64

Question 22.

For the equation $5x - 7y = 35$, if $y = 5$, then the value of 'x' is

- (a) -12
- (b) -14
- (b) 14
- (d) 12

Answer: (b) 14

Question 23.

The straight line passing through the points $(0, 0)$, $(-1, 1)$ and $(1, -1)$ has the equation :

- (a) $2 - x = 3y$
- (b) $y = x$
- (c) $2x - y = 0$
- (d) $x + y = 0$

Answer: (d) $x + y = 0$

Question 24.

The value of k , if $x = 1$, $y = 2$ is a solution of the equation $2x + 3y = k$.

- (a) 5
- (b) 6
- (c) 7
- (d) 8

Answer: (d) 8

Question 25.

The solution of equation $x - 2y = 4$ is:

- (a) $(0, 2)$
- (b) $(2, 0)$
- (c) $(4, 0)$
- (d) $(1, 1)$

Answer: (c) $(4, 0)$