

# 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

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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

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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

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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)  $y = 3$

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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

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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

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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

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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

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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

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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

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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

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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)

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Question 13.

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

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

Answer: (d) 1

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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

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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)  $x = 2$ ,  $y = 1$

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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

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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

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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

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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)  $y = mx$

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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)

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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

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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

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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)  $x + y = 0$

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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

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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)