1. A pair of linear equations $a_1x + b_1y + c_1 = 0$; $a_2x + b_2y + c_2 = 0$ is said to be inconsistent, if

(a) $\dfrac{a_1}{a_2} \neq \dfrac{b_1}{b_2}$

(b) $\dfrac{a_1}{a_2} = \dfrac{b_1}{b_2} \neq \dfrac{c_1}{c_2}$

(c) $\dfrac{a_1}{a_2} = \dfrac{b_1}{b_2} = \dfrac{c_1}{c_2}$

(d) $\dfrac{a_1}{a_2} \neq \dfrac{c_1}{c_2}$

2. Graphically, the pair of equations 7x - y = 5; 21x - 3y = 10 represents two lines which are
(a) intersecting at one point
(b) parallel
(c) intersecting at two points
(d) coincident

3. The pair of equations 3x - 5y = 7 and - 6x + 10y = 7 have
(a) a unique solution
(b) infinitely many solutions
(c) no solution
(d) two solutions

4. If a pair of linear equations is consistent, then the lines will be
(a) always coincident
(b) parallel
(c) always intersecting
(d) intersecting or coincident

5. The pair of equations x = 0 and x = 5 has
(a) no solution
(b) unique/one solution
(c) two solutions
(d) infinitely many solutions

6. The pair of equation x = - 4 and y = - 5 graphically represents lines which are
(a) intersecting at (- 5, - 4)
(b) intersecting at (- 4, - 5)

(c) intersecting at (5, 4)
(d) intersecting at (4, 5)

7. For what value of k, do the equations 2x - 3y + 10 = 0 and 3x + ky + 15 = 0 represent coincident lines

(a) $\left(\dfrac{-9}{2}\right)$

(b) – 11

(c) $\dfrac{9}{2}$

(d) – 7

8. If the lines given by 2x + ky = 1 and 3x - 5y = 7 are parallel, then the value of k is

(a) $\dfrac{-10}{3}$

(b) $\dfrac{10}{3}$

(c) – 13

(d) – 7

9. One equation of a pair of dependent linear equations is 2x + 5y = 3. The second equation will be
(a) 2x + 5y = 6
(b) 3x + 5y = 3
(c) -10x - 25y + 15 = 0
(d) 10x + 25y = 15

10. If x = a, y = b is the solution of the equations x + y = 5 and 2x - 3y = 4, then the values of a and b are respectively
(a) 6, -1
(b) 2, 3
(c) 1, 4
(d) 19/5, 6/5

11. The graph of x = -2 is a line parallel to the
(a) x-axis
(b) y-axis

(c) both x- and y-axis
(d) none of these

12. The graph of y = 4x is a line
(a) parallel to x-axis
(b) parallel to y-axis
(c) perpendicular to y-axis
(d) passing through the origin

13. The graph of y = 5 is a line parallel to the
(a) x-axis
(b) y-axis
(c) both axis
(d) none of these

14. Two equations in two variables taken together are called
(a) linear equations
(b) quadratic equations
(c) simultaneous equations
(d) none of these

15. If am bl then the system of equations ax + by = c, lx + my = n, has
(a) a unique solution
(b) no solution
(c) infinitely many solutions
(d) none of these

16. If in the equation x + 2y = 10, the value of y is 6, then the value of x will be
(a) -2
(b) 2
(c) 4
(d) 5

17. The graph of the equation 2x + 3y = 5 is a
(a) vertical line

(b) straight line
(c) horizontal line
(d) none of these

18. The value of k, for which equations 3x + 5y = 0 and kx + lOy = 0 has a non-zero solution is
(a) 6
(b) 0
(c) 2
(d) 5

19. The value of k, for which the system of equations x + (k + l)y = 5 and (k + l)x + 9y = 8k - 1 has infinitely many solutions is
(a) 2
(b) 3
(c) 4
(d) 5

20. The value of k for which the equations (3k + l)x + 3y = 2; (k2 + l)x + (k - 2)y = 5 has no solution, then k is equal to
(a) 2
(b) 3
(c) 1
(d) -1

21. The pair of equations x = a and y = b graphically represents lines which are
(a) parallel
(b) intersecting at (b, a)
(c) coincident
(d) intersecting at (a, b)

22. Asha has only â‚¹1 and â‚¹2 coins with her. If the total number of coins that she has is 50 and the amount of money with her is â‚¹75, then the number of â‚¹1 and â‚¹2 coins are, respectively
(a) 35 and 15
(b) 15 and 35
(c) 35 and 20
(d) 25 and 25

23. The father's age is six times his son's age. Four years hence, the age of the father will be four times his son's age. The present ages of the son and the father are, respectively
(a) 4 and 24
(b) 5 and 30
(c) 6 and 36
(d) 3 and 24

24. The sum of the digits of a two-digit number is 9. If 27 is added to it, the digits of the number get reversed. The number is
(a) 27
(b) 72
(c) 45
(d) 36

25. The pair of linear equations $2x + 3y = 5$ and $4x + 6y = 10$ is
(a) inconsistent
(b) consistent
(c) dependent consistent
(d) none of these

26. The pair of equations $y = 0$ and $v = -7$ has [NCERT Exemplar Problems]
(a) one solution
(b) two solutions
(c) infinitely many solutions
(d) no solution

27. The pair of equations $x = a$ and $y = b$ graphically represents lines which are
(a) parallel
(b) intersecting at (b, a)
(c) coincident
(d) intersecting at (a, b)

28. Match the Column:

(1)	$2x + 5y = 10$ $3x + 4y = 7$	(A)	Unique solution
(2)	$2x + 5y = 10$ $6x + 15y = 20$	(B)	Infinitely many solutions
(3)	$5x + 2y = 10$ $10x + 4y = 20$	(C)	No common solution

(a) 1 - A, 2 - B, 3 - C
(b) 1 - B, 2 - C, 3 - A
(c) 1 - C, 2 - B, 3 - A
(d) 1 - A, 2 - C, 3 - B

29. The pair of equations x = 4 and y = 3 graphically represents lines which are
(a) parallel
(b) intersecting at (3, 4)
(c) coincident
(d) intersecting at (4, 3)

30. $a_1x + b_1y + c_1 = 0$ and $a_2x + b_2y + c_2 = 0$, where a_1, b_1, c_1, a_2, b_2, c_2 are all real numbers and $a_1^2 + b_1^2 â‰ 0$, $a_2^2 + b_2^2 â‰ 0$, is called a
(a) family of two different straight lines
(b) family of two coincident lines
(c) pair of linear equations in two variables
(d) none of these

31. Match the Column:

(1)	$2x + 3y = 40$ $6x + 5y = 10$	(A)	Coincident lines
(2)	$2x + 3y = 40$ $6x + 9y = 50$	(B)	Intersecting lines
(3)	$2x + 3y = 10$ $4x + 6y = 20$	(C)	Parallel lines

(a) 1 - A, 2 - B, 3 - C
(b) 1 - B, 2 - A, 3 - C
(c) 1 - B, 2 - C, 3 - A
(d) 1 - C, 2 - A, 3 - B

32. A pair of linear equations which has a unique solution x = 2, y = -3 is [NCERT Exemplar Problems]
(a) x + y = â€"1; 2x - 3y = -5
(b) 2x + 5y = -11; 4x + 10y = -22
(c) 2x - y = 1 ; 3x + 2y = 0
(d) x-4y- 14 = 0; 5x-y- 13 = 0

33. The father's age is six times of his son's age. Four years hence, the age of the father will be four times of his son's age. The present ages, in years, of the son and the father are, respectively.
[NCERT Exemplar Problems]
(a) 4 and 24
(b) 5 and 30
(c) 6 and 36
(d) 3 and 24

34. If x = a, y = b is the solution of the pair of equations x - y = 2 and x + y = 4, then the respective values of a and b are
[CBSE 2018(C)]

(a) 3, 5
(b) 5, 3
(c) 3, 1
(d) -1, -3

35. The difference between a two digit number and the number obtained by interchanging the digits is 27. What is the difference between the two digits of the number?
(a) 9
(b) 6
(c) 12
(d) 3

36. The pair of equations ax + 2y = 7 and 3x + by = 16 represent parallel lines if
(a) a = b
(b) 3a = 2b
(c) 2 a = 3 b
(d) ab = 6

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1. If a pair of equation is consistent, then the lines will be

(a) parallel (b) always coincident (c) always intersecting (d) intersecting or coincident

2. The solution of the equations x + y = 14 and x − y =4 is

(a) x = 9 and y = 5 (b) x = 5 and y = 9 (c) x = 7 and y = 7 (d) x = 10 and y = 4

3. The sum of the numerator and denominator of a fraction is 12. If the denominator is increased by b3, the fraction becomes ½ , then the fraction

(a) 4/7 (b) 5/7 (c) 6/7 (d) 3/7

4. The value of k for which the system of equations x − 2y = 3 and 3x + ky = 1 has a unique solution is

(a) k = − 6 (b) k ≠ − 6 (c) k = 0 (d) no value

5. If a pair of equation is inconsistent, then the lines will be

(a) parallel (b) always coincident (c) always intersecting (d) intersecting or coincident

6. The value of k for which the system of equations 2x + 3y = 5 and 4x + ky = 10 has infinite many solution is

(a) k = − 3 (b) k ≠ − 3 (c) k = 0 (d) none of these

7. The value of k for which the system of equations kx − y = 2 and 6x − 2y = 3 has a unique solution is

(a) k = − 3 (b) k ≠ − 3 (c) k = 0 (d) k ≠ 0

8. Sum of two numbers is 35 and their difference is 13, then the numbers are

(a) 24 and 12 (b) 24 and 11 (c) 12 and 11 (d) none of these

9. The solution of the equations 0.4x + 0.3y = 1.7 and 0.7x − 0.2y = 0.8 is

(a) x = 1 and y = 2 (b) x = 2 and y = 3 (c) x = 3 and y = 4 (d) x = 5 and y = 4

10. The solution of the equations x + 2y = 1.5 and 2x + y = 1.5 is

(a) x = 1 and y = 1 (b) x = 1.5 and y = 1.5 (c) x = 0.5 and y = 0.5 (d) none of these

11. The value of k for which the system of equations x + 2y = 3 and 5x + ky + 7 = 0 has no solution is

(a) 10 (b) 6 (c) 3 (d) 1

12. The value of k for which the system of equations 3x + 5y = 0 and kx + 10y = 0 has a non-zero solution is

(a) 0 (b) 2 (c) 6 (d) 8

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1. An equation which can be put in the form ax + by + c = 0, where a, b and c are real numbers and a and b are not both zero is called a —————-

A. Linear equation
B. Quadratic equation
C. Cubic equation

2. Which of the following is a solution of the linear equation 2x + 3y = 5?

A. x = 0, y = 1
B. x = 1, y =1
C. x =1, y = 0

3. A pair of linear equations which has no solution is called an ———- pair oflinear equations.

A. Consistent

B. Inconsistent

C. Congruent

4. A pair of linear equations in two variables which has a solution is called a ——-pair of linear equations.

A. Consistent

B. Inconsistent

C. Similar

5. Dependent pair of linear equations is always ————-

A. Consistent

B. Inconsistent

C. Congruent

6. Graphically the pair of equations $2x + 4y - 12 = 0$ and $x + 2y - 4 = 0$ represents two lines which are ————-

A. Intersecting at one point

B. Intersecting at two points

C. Parallel

7. If two lines intersect in a single point, then the pair of equations has a —— solution.

A. Unique

B. No

C. Infinitely many solutions

8. If two lines are parallel, the equations have ———— solution.

A. Unique

B. No

C. Infinitely many solutions

9. The following pair of linear equations $3x + 2y = 5$ and $2x - 3y = 7$ are ———

A. Inconsistent

B. Consistent

C. Congruent

10. Half the perimeter of a rectangular garden, whose length is 4m more than its width, is 36 m, then the dimensions of the garden is —————-

A. l = 20m, b = 16m
B. l = 16m, b= 20m
C. l = 18m, b = 18m

11. If the difference between two numbers is 26 and one number is three times the other, then the numbers are —————-

A. x = 36, y= 10
B. x = 39, y = 13
C. x = 33, y = 7

12. Five years hence, the age of Jacob will be three times that of his son. Five years ago, Jacob's age was seven times that of his son. Then their present ages are —————

A. x = 43, y = 13
B. x = 40, y= 10
C. x = 37, y = 7

13. The value of k is —— if the following pair of linear equations has no solution.
$3x + y = 1$ & $(2k -1)x + (k-1)y = 2k +1$

A. k = 1
B. k = 2
C. k = 3

14. The pair of equations $3x - y = 3$ and $9x - 3y = 9$ have ————

A. Unique solution
B. No solution
C. Infinitely many solutions

15. If a pair of linear equations is consistent, then the lines will be ———-

A. Parallel
B. Intersecting or coincident
C. Not intersecting, not parallel

ANSWERS:

1. Linear equations
2. $x = 1$, $y = 1$
3. Inconsistent
4. Consistent
5. Consistent
6. Parallel
7. Unique
8. No
9. Consistent
10. $l = 20m$, $b = 16m$

Half the perimeter of a rectangle = $l + b = 36m$ (given)

Let the width be b then length will be 4 +b.

Then $4 + b + b = 36$

$4 + 2b = 36$

$2b = 36 - 4 = 32$

$b = 32/2 = 16$ and $l = 4 + b = 4 + 16 = 20$

11. $x = 39$, $y = 13$

Let the numbers be x and y.

Then the equations are $x - y = 26$, $x = 3y$.

12. $x = 40$, $y = 10$

Let x and y be the ages in years of Jacob and his son.

The equations are $x + 5 = 3(y + 5)$

$x + 5 = 3y + 15$

$x - 3y - 10 = 0$ ———– (i)

$x - 5 = 7 (y-5)$

$x - 5 = 7y - 35$

$x - 7y + 30 = 0$ ——————(ii)

13. $k = 2$
14. Infinitely many solutions
15. Intersecting or coincident