

CHECK YOUR UNDERSTANDING

MULTIPLE-CHOICE QUESTIONS

For Basic and Standard Levels

Choose the correct answer from the given four options in the following questions:

1. If a pair of equations is consistent, then the lines will be
 (a) always intersecting. (b) always coincident.
 (c) intersecting or coincident. (d) parallel.
2. The pair of equations $x = 4$ and $y = 3$ graphically represent lines which are
 (a) coincident. (b) parallel.
 (c) intersecting at $(3, 4)$. (d) intersecting at $(4, 3)$. [CBSE 2012]
3. One equation of a pair of dependent linear equations is $-5x + 7y = 2$, the second equation can be
 (a) $10x + 14y + 4 = 0$ (b) $-10x - 14y + 4 = 0$
 (c) $-10x + 14y + 4 = 0$ (d) $10x - 14y = -4$ [CBSE SP 2011]
4. The value of α for which the pair of equations $3x + \alpha y = 6$ and $6x + 8y = 7$ will have infinitely many solutions is
 (a) 4 (b) no value
 (c) 3 (d) $\frac{1}{2}$
5. The points at which the graph lines of the equations $ax + by = 0$ and $ax - by = 0$ intersect is
 (a) $(a, 0)$ (b) $(b, 0)$
 (c) $(0, 0)$ (d) (a, b)
6. The points of intersection of the graph line of $\frac{x}{a} + \frac{y}{b} - 2 = 0$ with the x -axis and y -axis respectively are
 (a) $(0, -2a), (-2b, 0)$ (b) $(-2a, 0), (0, -2b)$
 (c) $(0, 2a), (2b, 0)$ (d) $(2a, 0), (0, 2b)$
7. Which of the following is not a solution of the pair of equations $3x - 2y = 4$ and $6x - 4y = 8$?
 (a) $x = 2, y = 1$ (b) $x = 4, y = 4$
 (c) $x = 6, y = 7$ (d) $x = 5, y = 3$ [CBSE SP 2011]
8. If $x = a, y = b$ is the solution of the equations $x - y = 2, x + y = 4$, then the values of a and b are respectively
 (a) 3 and 5 (b) 5 and 3
 (c) 3 and 1 (d) -1 and -3
9. The value of x satisfying both the equations $4x - 5 = y$ and $2x - y = 3$, when $y = -1$ is
 (a) 1 (b) -1 (c) 2 (d) -2

Work sheet 2. class 8

PAIR OF LINEAR EQUATIONS IN TWO VARIABLES | 3.73

6. The sum of digits of a two-digit number is 12. The number obtained by interchanging the two digits exceeds the given number by 18. Find the number.
[CBSE SP 2011]
7. The sum of digits of a two-digit number is 8. If 36 is added to the number, the digits interchange their places. Find the number.
[CBSE SP 2011]
8. A two-digit number is 3 more than 4 times the sum of its digits. If 18 is added to the number, the digits are reversed. Find the number.
[CBSE 2001 C]
9. The sum of a two-digit number and the number formed by interchanging the digits is 132. If 12 is added to the number, the new number becomes 5 times the sum of the digits. Find the number.
[CBSE SP 2011]
10. A number consisting of two-digits, is seven times the sum of digits. When 27 is subtracted from the number, the digits are reversed. Find the number.
[CBSE SP 2010]
11. The sum of a two-digit number and the number obtained by interchanging digits of the number is 154. The digits of the number differ by 2. How many such numbers are there? Find all of them.
12. Seven times a two digit number is equal to four times the number obtained by reversing the order of its digits. If the difference of the digits is 3, determine the number.
[CBSE SP 2018]

For Standard Level

13. The difference between two numbers is 6 and the difference between their squares is 96. Find the numbers.
14. The ten's digit of a two-digit number is twice the digit in unit's place. If the ten's digit is made half and its unit's digit is doubled then the new number obtained is less than the original number by 27. Find the number.
15. A two-digit number is four times the sum of its digits and twice the product of its digits. Find the number.
[CBSE SP 2005]
16. A two-digit number is such that the product of its digits is 18. When 63 is subtracted from the number, the digits interchange their place. Find the number.
[CBSE 2006 C]
17. A two-digit number is obtained by either multiplying the sum of digits by 8 and then subtracting 5 or by multiplying the difference of the digits by 16 and then adding 3. Find the number.
[NCERT EXEMPLAR]

ANSWERS (EXERCISE 3F)

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|--------------|--------------|---------------|-------------------------|
| 1. 75 and 30 | 2. 24 and 32 | 3. 4 and 12 | 4. 7 and 3 or -3 and -7 |
| 5. 40 and 48 | 6. 57 | 7. 26 | 8. 35 |
| 9. 48 | 10. 63 | 11. 86 and 68 | 12. 36 |
| 13. 11 and 5 | 14. 63 | 15. 36 | 16. 92 |
| 17. 83 | | | |