

# MATHS

## Equations in Two Variables Worksheet

For students preparing for MAH-B.BCA/BBA/BMS/BBM CET 2024 for admission to BCA, BBA, BMS, BBM

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- If  $12x + 13y = 29$  and  $13x + 12y = 21$  then  $x + y$  is \_\_\_\_\_
  - 4
  - 2
  - 2
  - 4
- For  $3x + 5y = 8$  and  $5x + 3y = 16$  is  $x + y$  is \_\_\_\_\_
  - 4
  - 3
  - 12
  - 9
- The pair of equations  $y = 0$  and  $y = -7$  has
  - One solution
  - Two solutions
  - Infinitely many solutions
  - No solution
- If the lines given by  $3x + 2ky = 2$  and  $2x + 5y + 1 = 0$  are parallel, then the value of  $k$  is
  - $5/4$
  - $2/5$
  - $15/4$
  - $3/2$
- The solution of the equations  $x - y = 2$  and  $x + y = 4$  is:
  - 3 and 5
  - 5 and 3
  - 3 and 1
  - 1 and -3
- 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 then number is \_\_\_\_\_
  - 36
  - 12
  - 3
  - 19
- Aruna has only Rs 1 and Rs 2 coins with her. If the total number of coins that she has is 50 and the amount of money with her is Rs 75, then the number of Rs 1 and Rs 2 coins are, respectively \_\_\_\_\_
  - 35 and 15
  - 35 and 20
  - 15 and 35
  - 25 and 25
- 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 is \_\_\_\_
  - 9
  - 6
  - 12
  - 3
- Solve  $x + y = 14$  and  $x - y = 2$ .
  - 8 and 6
  - 6 and 8
  - 6 and 9
  - 8 and 12

10. Sum of the ages of mother and son is 45 years. If son's age is subtracted from twice of mother's age then we get answer 54. Find the ages of mother and son

- A. 45 and 10
- B. 30 and 8
- C. 27 and 10
- D. 33 and 12

11. Solve the following equations  $3x + y = 5$  and  $2x + 3y = 1$  find the value of  $x$  and  $y$ ?

- A. 3 and 5
- B. -1 and -2
- C. 2 and -1
- D. 3 and 9

12. Solve the following simultaneous equations.  $3x - 4y - 15 = 0$  and  $y + x + 2 = 0$

- A. 6 and -5
- B. 5 and 8
- C. 7 and -3
- D. 1 and -3

13. If  $3x + 5y = 9$  and  $5x + 3y = 7$  then What is the value of  $x + y$ ?

- A. 2
- B. 16
- C. 9
- D. 7

14. When 5 is subtracted from length and breadth of the rectangle, the perimeter becomes 26. What is the mathematical form of the statement?

- A.  $x - y = 8$
- B.  $x + y = 8$
- C.  $x + y = 23$
- D.  $2x + y = 21$

15. Ajay is younger than Vijay by 5 years. Sum of their ages is 25 years. What is Ajay's age?

- A. 20
- B. 15
- C. 10
- D. 5

16. If a numerator of which the half is greater than of the number by 15 then the number is \_\_\_\_\_.

- A. 50
- B. 40
- C. 80
- D. None of these

17. The number consists of two digits. The digits in the ten's place is 3 times the digit in the unit's place. If 54 is subtracted from the number the digits are reversed. The number is \_\_\_\_\_.

- A. 39
- B. 92
- C. 93
- D. 94

18. The denominator of a fraction exceeds the numerators by 2. If 5 be added to the numerator the fraction increases by unity. The fraction is \_\_\_\_\_.

- A.  $5/7$
- B.  $1/3$
- C.  $7/9$
- D.  $3/5$

19. The diagonal of a rectangle is 5 cm and one of at side is 4 cm. It's area is \_\_\_\_\_.

- A. 20 sq. cm
- B. 12 sq. cm
- C. 10 sq. cm
- D. None of these

20. The sum of two numbers is 52 and their difference is 2. The numbers are \_\_\_\_\_.

- A. 17 and 15
- B. 12 and 10
- C. 27 and 25
- D. None of these

### Answer Key

|       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1. C  | 2. B  | 3. D  | 4. C  | 5. C  | 6. A  | 7. D  | 8. D  | 9. A  | 10. D |
| 11. C | 12. D | 13. A | 14. C | 15. C | 16. A | 17. C | 18. D | 19. B | 20. C |

