

## CHAPTER-3 | Pair of Linear Equations in Two Variables

### QUIZ PART-06

1. The difference between two numbers is 26, and one is three times the other. The numbers are:

- A. 26 and 52
- B. 39 and 13
- C. 12 and 36
- D. 18 and 54 (B)

*Explanation :* Solving  $x + 3x = 26$ , we get 13 and 39.

2. Two supplementary angles differ by  $18^\circ$ . The angles are:

- A.  $72^\circ$  and  $108^\circ$
- B.  $90^\circ$  and  $90^\circ$
- C.  $108^\circ$  and  $72^\circ$
- D.  $45^\circ$  and  $135^\circ$  (A)

*Explanation :* Angles are  $72^\circ$  and  $108^\circ$ .

3. The cost of 7 bats and 6 balls is ₹3800, and 3 bats and 5 balls cost ₹1750. The cost of each bat and ball is:

- A. ₹500 and ₹250
- B. ₹400 and ₹200
- C. ₹300 and ₹150
- D. ₹350 and ₹200 (B)

*Explanation :* Bat = ₹400, Ball = ₹200.

4. A taxi charges ₹105 for 10 km and ₹155 for 15 km. The fixed charge and per km charge are:

- A. ₹50 and ₹5
- B. ₹60 and ₹5
- C. ₹55 and ₹6
- D. ₹60 and ₹6 (D)

*Explanation :* Fixed = ₹60, Per km = ₹6.

5. A fraction becomes  $\frac{9}{11}$  when 2 is added to both the numerator and denominator. The fraction is:

- A.  $\frac{5}{7}$
- B.  $\frac{4}{7}$
- C.  $\frac{3}{7}$
- D.  $\frac{7}{9}$  (A)

*Explanation :* The fraction is  $\frac{5}{7}$ .

6. Jacob's age is 40 and his son's age is 10. This satisfies:

- A. 5 times relation
- B. 7 times relation
- C. 3 times relation
- D. None (A)

*Explanation :* Solving the age system.

7. The sum of a two-digit number and the number obtained by reversing the digits is 66. The number is:

- A. 27
- B. 72
- C. 45
- D. 36 (D)

*Explanation :* The number is 36.

8. The sum of two numbers is 26, one number is three times the other. The numbers are:

- A. 6 and 20
- B. 5 and 21
- C. 7 and 19
- D. 8 and 18 (A)

*Explanation :* Solving  $x + 3x = 26$ , we get 6 and 20.

9. The cost of 2 pencils and 3 erasers is ₹9. The cost of each pencil and eraser is:

- A. ₹3 and ₹1
- B. ₹1 and ₹2
- C. ₹2 and ₹1
- D. ₹1 and ₹3 (C)

*Explanation :* Pencil = ₹2, Eraser = ₹1.

10. The equation passing through (1, 2) with slope 3 is:

- A.  $y = 3x + 1$
- B.  $y - 2 = 3(x - 1)$
- C.  $y = x + 2$
- D.  $y = 3x - 1$  (B)

*Explanation :* Using point-slope form:  $y - 2 = 3(x - 1)$ .