BCM School Chandigarh Road

A Senior Secondary School of BCM Foundation Affiliated to CBSE, New Delhi

Class- VII (Mathematics) Ch-4 Simple Equations Session 2025-26

Objective Type:-

1. x exceeds 3 by 7, can be represented as
   (a) x+3=2 (b) x+7=3 (c) x-3=7 (d) x=4 +7
2. If 43m = 0.086, then the value of m is
   (a) 0.002 (b) 0.02 (c) 0.2 (d) 2
3. The value of y for which the expression y-15 and 2y+1 becomes equal is
   (a) 0 (b) 16 (c) 8 (d) -16
4. Write the following statement in the form of an equation. "The sum of three times x and 10 is 23.
   (a) 3x – 10 = 23 (b) 3x + 23 = 10 (c) 3x + 10 = 23 (d) 3x – 23 = 10
5. The solution of the equation -2(x + 3) = 4 is
   (a) -2 (b) -3 (c) -4 (d) -5
6. If the LHS and RHS of an equation are interchanged, then
   (a) The equation remains the same (b) The value of the variable becomes half.
   (c)The value of the variable becomes double (d) None of these
7. If 5 is added to three times a number, it becomes the same as 7 is subtracted from four times the same number. In equation form it can be written as

(a) 3x+5 = 7 (b) 3x + 5 = x + 7 (c) 3x +5 = 7 – 5x (d) 3x +5 = 4x -7

8. The equation which cannot be solved in integers is
   (a) 5y – 13 = -18 (b) 3x – 9 = 0 (c)3z + 8 = 3 (d) 9y+ 8 = 4y – 7
9. Thrice a number when increased by 5 gives 44. The number is
   (a) 13 (b) 26 (c) 39 (d) 49
10. **Which of the following is the correct solution of 4(x – 2) = 16?**
    (a) x = 5 (b) x = 6 (c)x = 4 (d) x = 3

Subjective Type:-

1. If k + 7 = 16, then find the value of 8k – 72.
2. Each of the two equal sides of an isosceles triangle is twice as large as the third side. If the perimeter of the triangle is 30cm, find the length of each side of the triangle
3. The present age of a son is half the present age of his father. Ten years ago, the father was thrice as old as his son. What are their present ages?

4. The length of a rectangle is twice its breadth. If its perimeter is 60 cm, find the length and the breadth of the rectangle.
5. Check whether the value given in brackets is solution to the given equation or not
   a) x + 7 = 17 (x = -10) b) 2y + 8 = 10 (y =2)
6. Write the following statements in the form of equations.
   (a) The sum of four times a number and 5 gives a number five times of it.
   (b) Three-fourth of a number is 2 more than 5.
7. Solve: 3(y – 2) = 2(y – 1) – 3

Case Study

Case1.John and Jivanti are playing with the marbles in the playground. They together have 45 marbles. John has 15 marbles more than Jivanti

1. The number of marbles Jayanti had: (a) 15 (b) 30 (c) 40 (d) 5
2. The number of marbles John had: (a)40 (b) 30 (c) 15 9d) 20
3. If 45 is replaced by 55 in above case then the number of marbles jivanti have:
   (a) 15 (b) 30 (c) 20 (d) 35

Case 2. One day, The Maths teacher decided to conduct a surprise test in class to gauge the students' understanding of the recent topics covered. The test was said to be particularly challenging, and the students were feeling a mix of excitement and nervousness. As the test papers were distributed, Abha and Palak exchanged determined glances, ready to conquer the challenge.

The teacher marked their papers and gave the students back in the next lecture. In test, Abha got twice the marks as that of Palak. They both reviewed their answers. Palak found that, in aquestion she has written, 1000 = 2X2X2X5X5. Teacher provided feedback and help everyone to improve.

From the above information answer these questions

1.If Palak gets x marks, find Abha's marks.

2.If two times Abha's marks and three times Palak's marks make 280, then what is the equation formed ? How many marks are obtained by Abha and Palak ?

Assertion Reason

(a) Both Assertion and Reason are correct and Reason is the correct explanation for assertion

(b)Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion.

(c)Assertion is true but the reason is false.

(d)Both assertion and reason are false.

1. Assertion: The value of the variable in an equation for which the equation is satisfied is called the solution of the equation

Reason: The solution of the equation x + 3 = 0 is -3.

2. Assertion: 7x + 9 = 16 is an equation.

Reason: An equation is a statement in which the values of two mathematical expressions are not equal.

3. Assertion: The solution of equation y + 3 = 10 is y = 7.

Reason: Subtracting 3 on both the sides, we get $y+3-3=10-3 \Rightarrow y=7$.

HOTS

1.The equation which cannot be solved in integers is

(a)5y – 13 = -18 (b) 3x – 9 = 0 (c) 3z + 8 = 3 (d) 9y+ 8 = 4y – 7

2.The interest received by Karim is ₹ 30 more than that of Ramesh. If the total interest received by them is ₹ 70, then how much interest will be received by Ramesh

3. The sum of two numbers is 11 and their difference is 5. Find the numbers

4. A man travelled two-fifth of his journey by train, one-third by bus, one-fourth by car and the remaining 3km on foot. What is the length of his total journey?

Answers: Objective- 1) c 2) a 3) d 4) c 5) d 6) a 7) d 8) c 9) a 10) b

Subjective- 1) 0 2) 6cm,12cm 3) 40,20 4) 20cm,10cm 5) a) Yes b) No 6) 4x+5=5x , 3x/4 =7 7)1

Case Study- Case1 1) a 2) b 3) c

Case2 1)2x 2)80,40

Assertion-Reason – 1) a 2) c 3) a

HOTS 1) c 2) Rs 20 3)3,8 4) 180km