

MATHEMATICS
CLASS VIII
SA-2
Assignment No. 13
Ch 7 Linear Equations in One Variable

1. Tick the correct alternative :
 - i. The sum of two, 2-digit numbers is 25 and their difference is 1. The two numbers are
 - a) 10, 15
 - b) 16, 9
 - c) 12, 13
 - d) 14, 11
 - ii. If $2x + 3 = x - \frac{1}{2}$, then the value of x is
 - a) $\frac{3}{2}$
 - b) $\frac{7}{2}$
 - c) $\frac{-7}{2}$
 - d) $\frac{-7}{4}$
 - iii. Solution of equation $\frac{3x}{x+4x} = \frac{1}{3}$ is
 - a) -1
 - b) 0
 - c) 1
 - d) 2
 - a) $\frac{1}{5}$ th of a number is 20 less than the number, The number is
 - a) 25
 - b) 30
 - c) 40
 - d) 150
2. Solve:
 - a) $6(3x + 1) - 3(4x - 2) = 2(x - 5) = 3(2x - 2)$
 - b) $3(x - 2) - 2(x - 3) = 4(x - 5) + 5(x - 8)$
 - c) $7(2t - 3) + 2(3t + 2) = t + 5$
 - d) $12 - \frac{2}{3}(2x - 5) + 3x = 5$
3. The numerator of a fraction is 3 less than its denominator. If the numerator is increased by 1 and the denominator is increased by 3, the fraction becomes $\frac{1}{2}$. Find the original fraction.
4. The difference of two positive numbers is 72 and the quotient obtained on dividing one by the other is 4. Find the numbers.
5. The sum of three consecutive numbers is 243. Find the numbers.
6. Divide Rs 300 into two parts such that half of one part may be less than the other by 48.
7. The sum of three consecutive even numbers is 78. Find the numbers.
8. The sum of Rs 9000 is in the form of denominations of Rs 100 and Rs 500. If the total number of notes is 50, find the number of notes of each type.
9. The perimeter of a rectangle is 320 cm. If the ratio of the length of the sides is 3:5, find the length and breadth of the rectangle.
10. Rhea's mother is four times as old as she is now. In twenty years the mother will be twice as old as her daughter. Find their present ages.
11. Fifteen years later a man will be four times as old as he was 15 years ago. How old is he now?
12. Rohan travelled $\frac{2}{5}$ of his journey by train, $\frac{1}{3}$ by a taxi, $\frac{1}{6}$ by a bus and the remaining 3 km on foot. What is the length of the total journey?
13. A mother is 20 years older than her son. Ten years ago she was 3 times as old as her son then. Find their present ages.
14. The numerator of a rational number is 4 less than the denominator. If 1 is added to the numerator and denominator both, the rational number becomes $\frac{1}{2}$. Find the rational number.
15. Tarun's father is 28 years younger than Tarun's grandfather and 30 years older than Tarun. If sum of ages of all three is 106 years, find the age of each of them.

