

## 7<sup>th</sup> – Simple Equations II



1. Solve the following equations:

(a)  $2y + \frac{5}{2} = \frac{37}{2}$

(b)  $5t + 28 = 10$

(c)  $6z + 10 = -2$

(d)  $\frac{5}{2}x = 10$

(e)  $4(2 - x) = 8$

(f)  $7x + 5 = 19$

(g)  $5x + 2 = 17$

(h)  $3x - 14 = 4$

(i)  $m - 7 = 3$

(j)  $3p + 4 = 25$

2. Construct 3 equations starting with  $x = 2$

3. Construct 3 equations starting with  $x = -2$

4. The teacher tells the class that the highest mark obtained by a student in her class is twice the lowest marks plus 7. The highest score is 87. What is the lowest score?

5. Sachin scored twice as many runs as Rahul. Together, their runs fell two short of a double century. How many runs did each one score?

6. Solve:  $33x + 19 = 100x - 28$

7. Solve:  $\frac{3}{5}(x) - 10 = 23$

8. Solve:

a.  $18 - 7x = -3$

b.  $3(x + 4) = 21$

c.  $2x/3 - 3x/5 = 8$

d.  $3x - 9 = 5x - 3$

9. A number is 12 more than the other. Find the numbers if their sum is 48.

10. Twice the number decreased by 22 is 48. Find the number.

11. Seven times the number is 36 less than 10 times the number. Find the number.

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12. The sum of two consecutive even numbers is 38. Find the numbers.

13. The sum of three consecutive odd numbers is 51. Find the numbers.

14. Rene is 6 years older than her younger sister. After 10 years, the sum of their ages will be 50 years. Find their present ages.

15. The length of a rectangle is 10 m more than its breadth. If the perimeter of rectangle is 80 m, find the dimensions of the rectangle.

16. A 300 m long wire is used to fence a rectangular plot whose length is twice its width. Find the length and breadth of the plot.

17. Adman's father is 49 years old. He is 5 years older than four times Adman's age. What is Adman's age?

18. The cost of a pencil is 25 cents more than the cost of an eraser. If the cost of 8 pencils and 10 erasers is Rs 12.80, find the cost of each.

19. Divide 36 into two parts in such a way that  $\frac{1}{5}$  of one part is equal to  $\frac{1}{7}$  of the other.

20. Raju's father's age is 5 years more than three times Raju's age. Find Raju's age, if his father is 44 years old.

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21. Nine added to thrice a number a whole number gives 45. Find the number.
22. The teacher tells the class that the highest marks obtained by a student in her class is twice the lowest marks plus 7. The highest score is 87. What is the lowest score?
23. Laxmi's father is 49 years old. He is 4 years older than three times Laxmi's age. What is Laxmi's age?
24. Maya, Madhura and Mohsina are friends studying in the same class. In a class test in geography, Maya got 16 out of 25. Madhura got 20. Their average score was 19. How much did Mohsina score?
25. People of Sundargram planted a total of 102 trees in the village garden. Some of the trees were fruit trees. The number of non-fruit trees were two more than three times the number of fruit trees. What was the number of fruit trees planted?
26. A father is 30 years older than his son. In 12 years, the man will be three times as old as his son. Find their present ages.
27. The ages of Arun and Rahul are in the ratio 7:5. Ten years hence, the ratio of their ages will be 9:7. Find their present ages.
28. In an examination, a student requires 40% of the total marks to pass. If Vandana gets 185 marks and fails by 15 marks, find the total marks.
29. After 12 years Uday will be 3 times as old as he was 4 years ago. Find his present age.

