



GRADE -8

QUESTION BANK

SUB: MATHEMATICS

CH-3 –

Linear equations in one variable .

MCQ :

1) The solution of $ax - b = 0$ is

- a) b b) $\frac{a}{b}$ c) 0 d) $\frac{b}{a}$

2) Which of the following is a linear equation?

- a) $2x^2 - 3 = 0$ b) $2x + 5 = -3$ c) $x^2 - 2 = -1$ d) $\frac{b}{a} 2x^3 - 4x = 10$

3) If $\frac{z}{z+5} = \frac{4}{9}$, then the value of z is

- a) 5 b) 4 c) 7 d) 8

4) Sum of two numbers is 95. If one exceeds the other by 15, then the numbers are

- (a) 25 & 40 (b) 50 & 65 (c) 30 & 45 (d) 40 & 55

5. If $2x - 5 = 13$ then the value of x is :

- (a) 5 (b) 9 (c) 7 (d) 3

FILL IN THE BLANKS :

i) The value of the variable for which the equation is true is called its

ii) when we convert " eight less than three times a number is equal to one " into equation ,we get

iii) The solution of the equation $3(x - 2) = 2(x - 3)$, is $x =$

iv) The solution of the linear equation $\frac{2x}{5} - 4 = \frac{3x}{4}$, is $x =$

Write TRUE/FALSE :

- a) A linear equation has only one solution.
- b) $x = \frac{b}{a}$ is the solution of the linear equation $ax + b = 0$.
- c) The degree of a linear equation can be 2.
- d) $5x - 2y = 17$ is a linear equation in one variable.

ANSWER THE FOLLOWING QUESTIONS

Solve the equations

1. $0.4(3x - 1) = 0.5x + 1$ 2. $15(y - 4) - 2(y - 9) + 5(y + 6) = 0$
3. $3(5z - 7) - 2(9z - 11) = 4(8z - 13) - 17$ 4. $2t - \frac{5}{6} = \frac{11}{15}$
5. After 12 years the age of Kunal will be four times his present age. Find his present age.
6. Divide 54 into two parts such that one part is of the other 72.
7. Distance between two stations A and B is 690 km. Two cars start simultaneously from A and B towards each other, and the distance between them after 6 hours is 30 km. If the speed of one car is less than the other by 10 km/hr, find the speed of each car.
8. Solve the equation $0.25(4x - 5) = 0.75x + 8$
9. The sum of three consecutive even natural numbers is 48. Find the greatest of these numbers
10. Solve the equations:
- a) $300x - 15x = 83 + 6x$ b) $(x - 1) + (3x + 2) = 2x + 11$
- c) $5(x + \frac{1}{2}) + 2x = 10x + 1$ d) $\frac{3m-5}{4} - \frac{4m+2}{3} = \frac{1}{3} - m$
- 11) Solve the equations:
- i) $\frac{2y+3}{3y-5} = \frac{18}{11}$ ii) $\frac{12h-7}{13+5h} = \frac{2}{7}$ iii) $-7(x-6) - 3x - 3 = 3(x+5) - 2x$

- 12) If 6 years ago ,the ages of grandma Polly and grand daughter Dolly were in the ratio 11:2,and their present ages are in the ratio 4:1 ,how old are they now?
- 13)Three-fourths of the students in a class learn vocal music and half of the remaining learn instrumental music. The remaining 4 students learn dance. What is the strength of the class?
- 14)The ratio of two numbers is 7:5. If the difference between these numbers is 12,find the numbers.