April 2025   **CLASS – VIII REVISION ASSIGNMENT SUBJECT – MATHEMATICS**
CH- 2 LINEAR EQUATIONS IN ONE VARIABLE

Objective Type Questions

1. If $8x – 3 = 25 +17x$, then x is

(a) a fraction   (b) an integer   (c) a rational number   (d) cannot be solved

2. The shifting of a number from one side of an equation to other is called

(a) Transposition   (b) Distributivity   (c) Commutativity   (d) Associativity

3. Linear equation in one variable has

(a) only one variable with any power.   (b) only one term with a variable.

(c) only one variable with power 1.   (d) only constant term.

4. A linear equation in one variable has

(a) Only one solution (b) Two solutions   (c) More than two solutions   (d) No solution

5. If $3x – 4 (64 – x) = 10$, then the value of x is

(a) –266   (b) 133   (c) 66.5   (d) 38

6. Fifteen added to thrice a whole number gives 93. The number is_____

7. What should be the value of x for which the expressions $3x – 4$ and $2x + 1$ becomes equal?

8.   The difference between two whole numbers is 66. The ratio of the two numbers is 2: 5. Find the numbers.

9.   Any value of the variable which makes both sides of an equation equal is known as a ____ of the equation.

10. Three consecutive numbers whose sum is 12 are ____,_____ and _____

Subjective Type Questions

Q: Solve the following equations :

(a) $0.4(3x –1) = 0.5x + 1$

(b) $8x – 7 – 3x = 6x – (2x – 3)$

(c) $10x – 5 – 7x = 5x + 15 – 8$

(d) $4t – 3 – (3t +1) = 5t – 4$

(e) $4 (3p + 2) – 5(6p –1) = 2(p – 8) – 6(7p – 4)$

(f) $\frac{1}{2}(x+1)+\frac{1}{3}(x-1)=\frac{5}{12}(x-2)$

(g) $\frac{x+1}{4}=\frac{x-2}{3}$

(h) $\frac{2x-1}{5}=\frac{3x+1}{3}$

Q: Case Study Questions

1) A group of 15 people went to watch a theatre show. The entry ticket for the adults was Rs 450 each and forchildren was Rs 250 each. The group paid Rs 5550 in all for the tickets.
Based on above information, answer the following questions.

    (i) Write a linear equation for the above situation.

    (ii) How many children were there in the group?

    (iii) What amount was paid for the tickets of adults only?

2) Rohit wants to construct a house in the middle of a square plot of side 40 m .If the length of house is 10 m more than the breadth and perimeter is 60 m, them find
1) Area of the house
2) Cost of cementing the floor of the house at the rate of rs 20 per sq metre
3) Find the area of the remaining part of the plot

Q: Assertion- Reason Type Question

a) Both A and R are true and R is the correct explanation of A

b) Both A and R are true but R is not the correct explanation of A

c) A is true but R is false   (d)A is false but R is true

1. Assertion: A linear equation 2x +1 = 5 has a unique solution.
   Reason: A linear equation in one variables has only one solution.

2. Assertion: The statement 'on adding 10 in a number, the number becomes 20' in the form of an equation is x + 10 = 20.

Reason (R) – Standard form for linear equation in one variable is ax+b=0. where x is variable and a, b are arbitrary constants

Answer key:

Objective: 1. (c); 2. (a); 3.(c); 4.(a); 5.(d); 6. -26 ;7. 5 ;8. 44,110; 9.solution ;10. 3,4,5

Subjective: (a) 2 (b) 10 (c) -6 (d) 0 (e) -5/22 (f)31/10. (g) 11 (h) -8/9

Case study 1) (i) 200x+3750=5550 (ii) 6 (iii)rs 4050   2) (i) 20m,10m (ii) rs 4000 (iii)1400 sq m

Assertion- reason 1) (a)   2) (a)