Linear Inequalities Worksheet – 1

1. If the replacement set = {-8, -6, -4, -2, 0, 1, 2}, then find the solution of

i) $-6 < x < 1$

ii) $0 \leq x \leq 3$

2. Represent the solution of the following inequality graphically.

i) $x \leq 5, x \in N$

ii) $x < 8, x \in W$

3. If the replacement set = { -8, -6, -4, -2, 0, 2, 4, 6, 8}, then represent the solution set of the inequality $-6 \leq x < 4$ graphically.

4. Find the solution set of the inequality $x < 9$, if the replacement set is

i) {1, 2, 3, 4, 5, 6, 7, 8, 9, 10}

ii) { -1, 0, 1, 2, 5, 8}

5. Solve: $-15 \leq 4m - 7, x \in I$

6. Solve: $\frac{2y-2}{5} \leq 4, y \in N$

7. Solve: $-3(p + 4) > 6, P \in I$

8. Solve: $\frac{P}{4} + 6 < 10, p \in W$

9. Solve: $\frac{1}{2} - \frac{y}{2} > -3, y \in N$

10. Solve: $\frac{5}{2} - \frac{Z}{2} < -3, z \in N$

11. Solve: $\frac{3}{2} - \frac{x}{2} > -1, x \in N$

12. Solve: $4(y - 2) < 3(y - 1), y \in W$

13. If the replacement set is {-3, -2, -1, 0, 1, 2, 3}, solve the inequation $\frac{4x-1}{3} < 2$ and write solution set.

14. If $Y \in$ {even integer}, represent the solution set of the inequation $-7 \leq y < 7$ is _____.

15. if the replacement set is {-5, -4, -3, -1, 0, 1, 3}, then the solution set of $-5 < x < 5$ is _____.

16. Solve the inequality: $-\frac{1}{3} \leq \frac{1}{2} - \frac{x}{5} < 2, x \in I$

17. Solve: $3p + 1 < 19, p \in N$

18. Solve: $\frac{3y+2}{3} + 1 \leq 4, y \in W$

19. Solve: $5 > 4x - 15, x \in N$

20. Solve: $-8 \leq 2x < 16, x \in I$