EduSahara™ Assignment

Name : Linear Inequations

Chapter : Linear Inequations

Grade : ICSE Grade X

1. Solve the inequation $(-7x-42)<0, x\in Z$

   (i) {-5,-4,-3,-2,-1,...} (ii) {-6,-5,-4,-3,-2,...} (iii) {-6,-7,-8,-9,-10,...} (iv) {-7,-8,-9,-10,-11,...}

2. Solve the inequation $(-x+1)>0, x\in Z$

   (i) {0,-1,-2,-3,-4,...} (ii) {1,2,3,4,5,...} (iii) {1,0,-1,-2,-3,...} (iv) {2,3,4,5,6,...}

3. Solve the inequation $(9x+9)\leq 0, x\in Z$

   (i) {-1,0,1,2,3,...} (ii) {-2,-3,-4,-5,-6,...} (iii) {-1,-2,-3,-4,-5,...} (iv) {0,1,2,3,4,...}

4. Solve the inequation $(9x-72)\geq 0, x\in Z$

   (i) {7,6,5,4,3,...} (ii) {8,9,10,11,12,...} (iii) {8,7,6,5,4,...} (iv) {9,10,11,12,13,...}

5. Find the solution set for the given inequation
   $(-2x-4)<0$, where the replacement set is {-4,-3,-2,-1,0,1,2}

   (i) {-1,0,1,2,3} (ii) {-2,-1,0,1,2} (iii) {-3,-4,-5,-6,-7} (iv) {-2,-3,-4,-5,-6} (v) {-1,0,1,2}

6. Find the solution set for the given inequation
   $(-8x)>0$, where the replacement set is {2,1,0,-1,-2,-3,-4}

   (i) {-1,-2,-3,-4} (ii) {0,-1,-2,-3,-4} (iii) {1,2,3,4,5} (iv) {-1,-2,-3,-4,-5} (v) {0,1,2,3,4}

7. Find the solution set for the given inequation
   $(5x+10)\leq 0$, where the replacement set is {1,0,-1,-2,-3,-4,-5}

   (i) {-2,-3,-4,-5} (ii) {-3,-4,-5,-6,-7} (iii) {-2,-1,0,1,2} (iv) {-1,0,1,2,3} (v) {-2,-3,-4,-5,-6}

8. Find the solution set for the given inequation
   $(-8x-72)\geq 0$, where the replacement set is {-6,-7,-8,-9,-10,-11,-12}

   (i) {-8,-7,-6,-5,-4} (ii) {-9,-10,-11,-12,-13} (iii) {-9,-10,-11,-12} (iv) {-9,-8,-7,-6,-5}

   (v) {-10,-11,-12,-13,-14}

9. Which of the following is an inequation?

   (i) $(8x+8)=0$ (ii) 8 (iii) $(3x+4)$ (iv) $(2x+7)<0, x\in Z$

10. Which of the following is not an inequation?

    (i) $(-8x-5)=9$ (ii) $(5x+9)>(-1), x\in Z$ (iii) $(-3x+8)\geq 0, x\in Z$ (iv) $(-3x)\leq 3, x\in Z$

    (v) $(9x+1)<6, x\in Z$

11. Which of the following is not an inequation?

    (i) $(6x+6)>(x+3), x\in Z$ (ii) $(-6x-3)\geq(9x+4), x\in Z$ (iii) $(-7x-9)=(9x+9)$

    (iv) $(-3x+5)\leq(4x+1), x\in Z$ (v) $(8x+3)<(5x-3), x\in Z$

12. Which of the following inequations is the same as $(6x+1)<(3x-4), x\in Z$

(i) $(6x+1)>(7x-6), x\in Z$ (ii) $(10x-1)<(7x-6), x\in Z$ (iii) $(10x-1)>(3x-4), x\in Z$

(iv) $(10x-1)<(3x-4), x\in Z$ (v) $(6x+1)<(7x-6), x\in Z$

13. Which of the following inequations is the same as $(9x+5)<(-9x+5), x\in Z$

(i) $(5x-3)<(-13x-3), x\in Z$ (ii) $(9x+5)<(-13x-3), x\in Z$ (iii) $(5x-3)<(-9x+5), x\in Z$

(iv) $(9x+5)>(-13x-3), x\in Z$ (v) $(5x-3)>(-9x+5), x\in Z$

14. Which of the following inequations is the same as $(-5x-1)\leq(-4x+1), x\in Z$

(i) $(-11x+5)<(-4x+1), x\in Z$ (ii) $(-11x+5)>(-4x+1), x\in Z$ (iii) $(-5x-1)<(-10x+7), x\in Z$

(iv) $(-5x-1)>(-10x+7), x\in Z$ (v) $(-11x+5)\leq(-10x+7), x\in Z$

15. Which of the following inequations is the same as $(-7x+7)\leq(-x), x\in Z$

(i) $(-10x+4)\leq(-4x-3), x\in Z$ (ii) $(-7x+7)<(-4x-3), x\in Z$ (iii) $(-7x+7)>(-4x-3), x\in Z$

(iv) $(-10x+4)>(-x), x\in Z$ (v) $(-10x+4)<(-x), x\in Z$

16. Which of the following inequations is the same as $(-x-6)>(6x+6), x\in Z$

(i) $(-x-6)>(11x+7), x\in Z$ (ii) $(-x-6)<(11x+7), x\in Z$ (iii) $(4x-5)>(11x+7), x\in Z$

(iv) $(4x-5)>(6x+6), x\in Z$ (v) $(4x-5)<(6x+6), x\in Z$

17. Which of the following inequations is the same as $(-9x-3)>(3x+3), x\in Z$

(i) $(-8x-1)>(3x+3), x\in Z$ (ii) $(-9x-3)<(4x+5), x\in Z$ (iii) $(-8x-1)<(3x+3), x\in Z$

(iv) $(-8x-1)>(4x+5), x\in Z$ (v) $(-9x-3)>(4x+5), x\in Z$

18. Which of the following inequations is the same as $(-3x-5)\geq(8x-4), x\in Z$

(i) $(-4x-8)>(8x-4), x\in Z$ (ii) $(-4x-8)<(8x-4), x\in Z$ (iii) $(-3x-5)<(7x-7), x\in Z$

(iv) $(-3x-5)>(7x-7), x\in Z$ (v) $(-4x-8)\geq(7x-7), x\in Z$

19. Which of the following inequations is the same as $(9x-8)\geq(-x+1), x\in Z$

(i) $0>(-x+1), x\in Z$ (ii) $(9x-8)<(-10x+9), x\in Z$ (iii) $(9x-8)>(-10x+9), x\in Z$ (iv) $0\geq(-10x+9), x\in Z$

(v) $0<(-x+1), x\in Z$

20. Which of the following inequations is the same as $(-7x+1)<(2x+5), x\in Z$

(i) $(-7x+1)<(12x+30), x\in Z$ (ii) $(-42x+6)<(2x+5), x\in Z$ (iii) $(-7x+1)>(12x+30), x\in Z$

(iv) $(-42x+6)<(12x+30), x\in Z$ (v) $(-42x+6)>(2x+5), x\in Z$

21. Which of the following inequations is the same as $(9x+5)\leq(-x-2), x\in Z$

(i) $(-63x-35)\geq(7x+14), x\in Z$ (ii) $(-63x-35)<(-x-2), x\in Z$ (iii) $(9x+5)<(7x+14), x\in Z$

(iv) $(9x+5)>(7x+14), x\in Z$ (v) $(-63x-35)>(-x-2), x\in Z$

22. Which of the following inequations is the same as $(8x+2)>(-6x+9), x\in Z$

(i) $(48x+12)<(-6x+9), x\in Z$ (ii) $(48x+12)>(-36x+54), x\in Z$ (iii) $(8x+2)>(-36x+54), x\in Z$

(iv) $(8x+2)<(-36x+54), x\in Z$ (v) $(48x+12)>(-6x+9), x\in Z$

23. Which of the following inequations is the same as $(-9x+9)\geq(6x-1), x\in Z$

(i) $(-9x+9)>(-24x+4), x\in Z$ (ii) $(36x-36)\leq(-24x+4), x\in Z$ (iii) $(36x-36)<(6x-1), x\in Z$

(iv) $(-9x+9)<(-24x+4), x\in Z$ (v) $(36x-36)>(6x-1), x\in Z$

24. Which of the following inequations is not the same as $(x-8)<(-5x+6), x\in Z$

(i) $(3x-10)<(3x+7), x\in Z$ (ii) $(3x-10)<(-3x+4), x\in Z$ (iii) $(9x-7)<(3x+7), x\in Z$

(iv) $(-6x-4)<(-12x+10), x\in Z$ (v) $0<(-6x+14), x\in Z$

25. Which of the following inequations is not the same as $(5x+8)<(2x+6), x\in Z$

(i) $4x<(7x+13), x\in Z$ (ii) $(9x+17)<(6x+15), x\in Z$ (iii) $4x<(x-2), x\in Z$ (iv) $(10x+15)<(7x+13), x\in Z$

(v) $(14x+8)<(11x+6), x\in Z$

26. Which of the following inequations is not the same as $(-6x+8)\leq(-4x+5), x\in Z$

(i) $(-14x+3)\leq(-12x), x\in Z$ (ii) $(-x+1)\leq(x-2), x\in Z$ (iii) $(x+13)\leq(3x+10), x\in Z$

(iv) $17\leq(2x+14), x\in Z$ (v) $17\leq(x-2), x\in Z$

27. Which of the following inequations is not the same as $(-7x-4)\leq(9x-2), x\in Z$

(i) $(-5x+1)\leq(11x+3), x\in Z$ (ii) $(-2x+2)\leq(14x+4), x\in Z$ (iii) $3\leq(11x+3), x\in Z$ (iv) $3\leq(16x+5), x\in Z$

(v) $(-5x-12)\leq(11x-10), x\in Z$

28. Which of the following inequations is not the same as $(4x-2)>(-6x+6), x\in Z$

(i) $(2x+7)>(-8x+15), x\in Z$ (ii) $(-x-1)>(-8x+15), x\in Z$ (iii) $(-3x+5)>(-13x+13), x\in Z$

(iv) $(10x-10)>(-2), x\in Z$ (v) $(-x-1)>(-11x+7), x\in Z$

29. Which of the following inequations is not the same as $(x-3)>(-x+5), x\in Z$

(i) $(-5x-1)>(-4), x\in Z$ (ii) $(-5x-1)>(-7x+7), x\in Z$ (iii) $(2x-12)>(-4), x\in Z$

(iv) $(-x-7)>(-3x+1), x\in Z$ (v) $(-8x-4)>(-10x+4), x\in Z$

30. Which of the following inequations is not the same as $(-8x-1)\geq(-3x-9), x\in Z$

(i) $(-10x+4)\geq(-2x-16), x\in Z$ (ii) $(-7x-8)\geq(-2x-16), x\in Z$ (iii) $(-10x+4)\geq(-5x-4), x\in Z$

(iv) $(-3x-8)\geq(2x-16), x\in Z$ (v) $(-3x-1)\geq(2x-9), x\in Z$

31. Which of the following inequations is not the same as $(-9x-7)\geq(7x+2), x\in Z$

(i) $(-7x-5)\geq(9x+4), x\in Z$ (ii) $(-x-5)\geq(15x+4), x\in Z$ (iii) $(-14x+1)\geq(2x+10), x\in Z$

(iv) $(-11x-3)\geq(2x+10), x\in Z$ (v) $(-11x-3)\geq(5x+6), x\in Z$

32. The solution set of the inequality $(x+6)<(8x+8), x\in Z$ is

(i) {2,3,4,5,6,...} (ii) {-1,-2,-3,-4,-5,...} (iii) {0,1,2,3,4,...}

33. The solution set of the inequality $(7x-8)>(-3x-8), x\in Z$ is

(i) {0,1,2,3,4,...} (ii) {-1,-2,-3,-4,-5,...} (iii) {1,2,3,4,5,...} (iv) {-5,-6,-7,-8,-9,...}

34. The solution set of the inequality $(6x+1)\leq(2x+1), x\in Z$ is

(i) {0,1,2,3,4,...} (ii) {0,-1,-2,-3,-4,...} (iii) {1,2,3,4,5,...}

35. The solution set of the inequality $(9x-4)\geq(7x+7), x\in Z$ is

(i) {5,4,3,2,1,...} (ii) {2,1,0,-1,-2,...} (iii) {0,1,2,3,4,...} (iv) {6,7,8,9,10,...}

36. The solution set of the inequality $(-4x-9)<1, x\in Z$ is

(i) {-3,-4,-5,-6,-7,...} (ii) {-2,-3,-4,-5,-6,...} (iii) {-2,-1,0,1,2,...} (iv) {4,5,6,7,8,...}

37. The solution set of the inequality $(5x-3)>(-5), x\in Z$ is

(i) {-4,-5,-6,-7,-8,...} (ii) {2,3,4,5,6,...} (iii) {-1,-2,-3,-4,-5,...} (iv) {0,1,2,3,4,...}

38. The solution set of the inequality $(5x-7)\leq 8, x\in Z$ is

(i) {0,-1,-2,-3,-4,...} (ii) {3,4,5,6,7,...} (iii) {4,5,6,7,8,...} (iv) {3,2,1,0,-1,...}

39. The solution set of the inequality $(6x-1)\geq(-8), x\in Z$ is

(i) {-2,-3,-4,-5,-6,...} (ii) {-1,0,1,2,3,...} (iii) {0,1,2,3,4,...}

40. The simplified form of the inequality $(3x-5)<(-4), x\in Z$ is

(i) $x<\frac{1}{3}, x\in Z$ (ii) $x>0, x\in Z$ (iii) $x\leq\frac{2}{3}, x\in Z$ (iv) $x\geq\frac{2}{3}, x\in Z$ (v) $x<0, x\in Z$

41. The simplified form of the inequality $(-9x+7)>(-4), x\in Z$ is

(i) $x<\frac{11}{9}, x\in Z$ (ii) $x\geq\frac{10}{9}, x\in Z$ (iii) $x<\frac{4}{3}, x\in Z$ (iv) $x>\frac{4}{3}, x\in Z$ (v) $x\leq\frac{10}{9}, x\in Z$

42. The simplified form of the inequality $(-9x-5)\leq 9, x\in Z$ is

(i) $x>(-\frac{13}{9}), x\in Z$ (ii) $x<(-\frac{13}{9}), x\in Z$ (iii) $x\geq(-\frac{14}{9}), x\in Z$ (iv) $x\geq(-\frac{5}{3}), x\in Z$ (v) $x\leq(-\frac{5}{3}), x\in Z$

43. The simplified form of the inequality $(5x-2)\geq 4, x\in Z$ is

(i) $x\leq \frac{7}{5}, x\in Z$ (ii) $x\geq \frac{6}{5}, x\in Z$ (iii) $x<1, x\in Z$ (iv) $x\geq \frac{7}{5}, x\in Z$ (v) $x>1, x\in Z$

44. The simplified form of the inequality $(-2x+2)<(5x+3), x\in Z$ is

(i) $x>0, x\in Z$ (ii) $x\geq(-\frac{2}{7}), x\in Z$ (iii) $x\leq(-\frac{2}{7}), x\in Z$ (iv) $x<0, x\in Z$ (v) $x>(-\frac{1}{7}), x\in Z$

45. The simplified form of the inequality $(-8x-9)>(-9x+5), x\in Z$ is

(i) $x>13, x\in Z$ (ii) $x<13, x\in Z$ (iii) $x\geq 15, x\in Z$ (iv) $x\leq 15, x\in Z$ (v) $x>14, x\in Z$

46. The simplified form of the inequality $(-6x-6)\leq(-9x+7), x\in Z$ is

(i) $x\geq \frac{14}{3}, x\in Z$ (ii) $x\leq \frac{14}{3}, x\in Z$ (iii) $x>4, x\in Z$ (iv) $x\leq \frac{13}{3}, x\in Z$ (v) $x<4, x\in Z$

47. The simplified form of the inequality $(2x-3)\geq(7x-4), x\in Z$ is

(i) $x<\frac{2}{5}, x\in Z$ (ii) $x\geq 0, x\in Z$ (iii) $x>\frac{2}{5}, x\in Z$ (iv) $x\leq 0, x\in Z$ (v) $x\leq \frac{1}{5}, x\in Z$

48. Which of the following statements are true?

a) Multiplying same positive number on both sides does not change the inequality
b) Dividing same negative number on both sides does not change the inequality
c) Subtracting same number on both sides does not change the inequality
d) Dividing same positive number on both sides does not change the inequality
e) Adding same number on both sides does not change the inequality
f) Multiplying same negative number on both sides does not change the inequality

(i) {a,c,d,e} (ii) {b,a} (iii) {b,e,a} (iv) {f,c} (v) {b,f,d}

49. Which of the following inequations is not the same as $(-x-6)<(-5x+5), x\in Z$

(i) $(-2x-12)<(-10x+10), x\in Z$ (ii) $(-x-6)<(-5x+5), x\in Z$ (iii) $(5x+30)>(25x-25), x\in Z$

(iv) $(-2x-12)<(-5x+5), x\in Z$ (v) $(-9x-54)<(-45x+45), x\in Z$

50. Which of the following inequations is not the same as $(4x+2)\leq(-5x+1), x\in Z$

(i) $(16x+8)\leq(-20x+4), x\in Z$ (ii) $(16x+8)\leq(-10x+2), x\in Z$ (iii) $(8x+4)\leq(-10x+2), x\in Z$

(iv) $(12x+6)\leq(-15x+3), x\in Z$ (v) $(4x+2)\leq(-5x+1), x\in Z$

51. Which of the following inequations is not the same as $(9x+6)>(-5x-2), x\in Z$

(i) $(-9x-6)<(5x+2), x\in Z$ (ii) $(9x+6)>(-5x-2), x\in Z$ (iii) $(-54x-36)<(30x+12), x\in Z$

(iv) $(-9x-6)>(-10x-4), x\in Z$ (v) $(18x+12)>(-10x-4), x\in Z$

52. Which of the following inequations is not the same as $(9x-6)\geq(-7x+1), x\in Z$

(i) $(27x-18)\geq(-21x+3), x\in Z$ (ii) $(-36x+24)\leq(28x-4), x\in Z$ (iii) $(27x-18)\geq(28x-4), x\in Z$

(iv) $(63x-42)\geq(-49x+7), x\in Z$ (v) $(45x-30)\geq(-35x+5), x\in Z$

53. Find the solution set of given inequality $(9x-45)<0, x\in Z$

(i) {6,7,8,9,...} (ii) {4,3,2,1,...} (iii) {5,6,7,8,...} (iv) {5,4,3,2,...}

54. Find the solution set of given inequality $(4x+12)>0, x\in Z$

(i) {-2,-1,0,1,...} (ii) {-3,-2,-1,0,...} (iii) {-4,-5,-6,-7,...} (iv) {-3,-4,-5,-6,...}

55. Find the solution set of given inequality $(4x+32)\leq 0, x\in Z$

(i) {-7,-6,-5,-4,...} (ii) {-9,-10,-11,-12,...} (iii) {-8,-7,-6,-5,...} (iv) {-8,-9,-10,-11,...}

56. Find the solution set of given inequality $(-9x+63)\geq 0, x\in Z$

(i) {6,5,4,3,...} (ii) {7,8,9,10,...} (iii) {7,6,5,4,...} (iv) {8,9,10,11,...}

57. Find the solution set of $12<(5x-5)<27, x\in Z$

(i) {5,6,7} (ii) {4,5,6} (iii) {6,7,8} (iv) {3,4,5} (v) {2,3,4}

58. Find the solution set of $(-2)>(-8x+4)>(-14), x\in Z$

(i) {1,2} (ii) {3,4} (iii) {-1,0} (iv) {2,3} (v) {0,1}

59. Find the solution set of $(-3)\leq(-2x-4)\leq 9, x\in Z$

(i) {0,-1,-2,-3,-4,-5} (ii) {-1,-2,-3,-4,-5,-6} (iii) {1,0,-1,-2,-3,-4} (iv) {-2,-3,-4,-5,-6,-7}

(v) {-3,-4,-5,-6,-7,-8}

60. Find the solution set of $5\geq(-3x+8)\geq(-12), x\in Z$

(i) {-1,0,1,2,3,4} (ii) {2,3,4,5,6,7} (iii) {3,4,5,6,7,8} (iv) {1,2,3,4,5,6} (v) {0,1,2,3,4,5}

61. Find the solution set of $0<(x-4)\leq 9, x\in Z$

(i) {6,7,8,9,10,11,12,13,14} (ii) {7,8,9,10,11,12,13,14,15} (iii) {3,4,5,6,7,8,9,10,11}

(iv) {4,5,6,7,8,9,10,11,12} (v) {5,6,7,8,9,10,11,12,13}

62. Find the solution set of $3>(5x+2)\geq(-22), x\in Z$

(i) {-2,-3,-4,-5,-6} (ii) {1,0,-1,-2,-3} (iii) {2,1,0,-1,-2} (iv) {0,-1,-2,-3,-4} (v) {-1,-2,-3,-4,-5}

63. Find the solution set of $(-10)\leq(-8x-1)<18, x\in Z$

(i) {-1,-2,-3,-4} (ii) {0,-1,-2,-3} (iii) {3,2,1,0} (iv) {1,0,-1,-2} (v) {2,1,0,-1}

64. Find the solution set of $(-9)\geq(-6x+9)>(-23), x\in Z$

(i) {1,2,3} (ii) {4,5,6} (iii) {5,6,7} (iv) {3,4,5} (v) {2,3,4}

Assignment Key

1) (i)	2) (i)	3) (iii)	4) (ii)	5) (v)	6) (i)
7) (i)	8) (iii)	9) (iv)	10) (i)	11) (iii)	12) (ii)
13) (i)	14) (v)	15) (i)	16) (iii)	17) (iv)	18) (v)
19) (iv)	20) (iv)	21) (i)	22) (ii)	23) (ii)	24) (i)
25) (i)	26) (v)	27) (iii)	28) (ii)	29) (i)	30) (i)
31) (iv)	32) (iii)	33) (iii)	34) (ii)	35) (iv)	36) (iii)
37) (iv)	38) (iv)	39) (ii)	40) (i)	41) (i)	42) (iii)
43) (ii)	44) (v)	45) (v)	46) (iv)	47) (v)	48) (i)
49) (iv)	50) (ii)	51) (iv)	52) (iii)	53) (ii)	54) (i)
55) (iv)	56) (iii)	57) (ii)	58) (i)	59) (ii)	60) (iv)
61) (v)	62) (iv)	63) (iv)	64) (iv)		