EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Linear Inequations

Grade : ICSE Grade VII

1. The solution set of the inequality $(4x-1)<(-9x-8), x\in Z$ is

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

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

   (i) $(-30x+45)>(-25x+25), x\in Z$ (ii) $(42x-63)<(35x-35), x\in Z$ (iii) $(-6x+9)>(-5x+5), x\in Z$

   (iv) $(-24x+36)>(-20x+20), x\in Z$ (v) $(-6x+9)>(-20x+20), x\in Z$

3. Find the solution set of $0\leq(-9x-8)<29, x\in Z$

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

4. Which of the following inequations is not the same as $(-3x+8)\leq(2x-3), x\in Z$

   (i) $(-11x)\leq(-6x-11), x\in Z$ (ii) $(3x+12)\leq(8x+1), x\in Z$ (iii) $(3x+12)\leq(-x+6), x\in Z$

   (iv) $(-12x+7)\leq(-7x-4), x\in Z$ (v) $(-6x+17)\leq(-x+6), x\in Z$

5. The simplified form of the inequality $(-2x-5)\geq 1, x\in Z$ is

   (i) $x>(-\frac{5}{2}), x\in Z$ (ii) $x<(-\frac{5}{2}), x\in Z$ (iii) $x\geq(-\frac{7}{2}), x\in Z$ (iv) $x\leq(-3), x\in Z$ (v) $x\leq(-\frac{7}{2}), x\in Z$

6. Find the solution set of $(-10)\geq(-9x+7)>(-21), x\in Z$

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

7. Which of the following inequations is not the same as $(6x-9)\geq(-8x+2), x\in Z$

   (i) $(-16)\geq(-14x-5), x\in Z$ (ii) $(5x-14)\geq(-9x-3), x\in Z$ (iii) $(14x-5)\geq 6, x\in Z$ (iv) $(-16)\geq 6, x\in Z$

   (v) $(7x-9)\geq(-7x+2), x\in Z$

8. Which of the following inequations is the same as $(x-8)<(8x+7), x\in Z$

   (i) $(-7x-17)>(8x+7), x\in Z$ (ii) $(x-8)<(-2), x\in Z$ (iii) $(-7x-17)<(-2), x\in Z$

   (iv) $(-7x-17)<(8x+7), x\in Z$ (v) $(x-8)>(-2), x\in Z$

9. The solution set of the inequality $(5x-2)\geq(-4x+3), x\in Z$ is

   (i) {-1,-2,-3,-4,-5,...} (ii) {-8,-9,-10,-11,-12,...} (iii) {1,2,3,4,5,...} (iv) {0,-1,-2,-3,-4,...}

10. Which of the following statements are true?

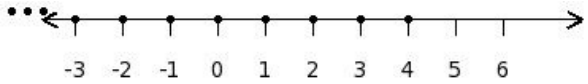
a) Multiplying same positive number on both sides does not change the inequality
b) Subtracting same number on both sides does not change the inequality
c) Dividing same positive number on both sides does not change the inequality
d) Dividing same negative number on both sides does not change the inequality
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) {d,f,c} (ii) {a,b,c,e} (iii) {f,b} (iv) {d,a} (v) {d,e,a}

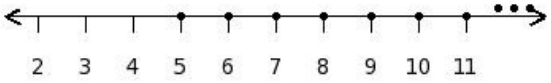
11. Find the solution set for the given inequation
$(6x-54)\geq 0$, where the replacement set is $\{6,7,8,9,10,11,12\}$

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

12. Identify the solution for the inequality $(-2x+10)\leq 0, x\in Z$



(I)



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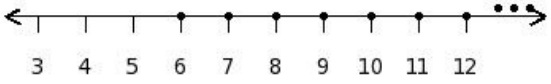

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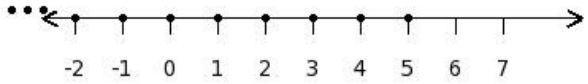


(IV)

(i) II (ii) I (iii) IV (iv) III

13. The simplified form of the inequality $(3x+6)\geq(-8x), x\in Z$ is

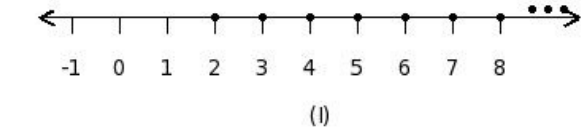
(i) $x\geq(-\frac{6}{11}), x\in Z$ (ii) $x<(-\frac{7}{11}), x\in Z$ (iii) $x>(-\frac{7}{11}), x\in Z$ (iv) $x\geq(-\frac{5}{11}), x\in Z$ (v) $x\leq(-\frac{5}{11}), x\in Z$

14. Which of the following inequations is the same as
$(6x-4)\leq(-5x), x\in Z$

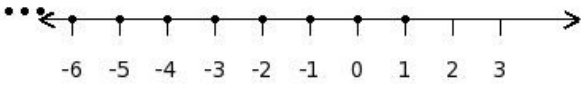
(i) $(-2x+1)<(-5x), x\in Z$ (ii) $(-2x+1)>(-5x), x\in Z$ (iii) $(-2x+1)\leq(-13x+5), x\in Z$

(iv) $(6x-4)>(-13x+5), x\in Z$ (v) $(6x-4)<(-13x+5), x\in Z$

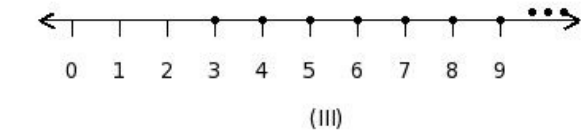
15. Which of the following figures represents the solution set $\{2,1,0,-1,-2,-3,...\}$



(I)



(II)



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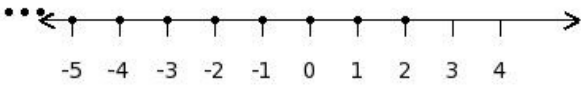


(IV)

(i) I (ii) IV (iii) III (iv) II

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

(i) $(-6x-9)>(-56x-14), x\in Z$ (ii) $(-6x-9)<(-56x-14), x\in Z$ (iii) $(-42x-63)<(-8x-2), x\in Z$

(iv) $(-42x-63)>(-8x-2), x\in Z$ (v) $(-42x-63)\leq(-56x-14), x\in Z$

17. Which of the following inequations is the same as $(-3x-3)<(2x+3), x\in Z$

(i) $(-11x+1)>(2x+3), x\in Z$ (ii) $(-3x-3)<(-6x+7), x\in Z$ (iii) $(-3x-3)>(-6x+7), x\in Z$

(iv) $(-11x+1)<(-6x+7), x\in Z$ (v) $(-11x+1)<(2x+3), x\in Z$

18. Find the solution set of $(-4)>(-3x-2)\geq(-21), x\in Z$

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

19. Find the solution set for the given inequation $(2x+16)\leq 0$, where the replacement set is {-5,-6,-7,-8,-9,-10,-11}

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

20. Find the solution set of $7\geq(9x+3)\geq(-22), x\in Z$

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

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

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

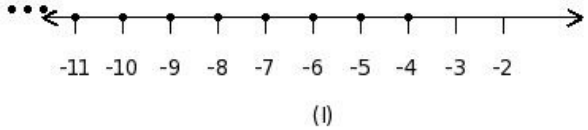
22. The solution set of the inequality $(-9x-9)\leq 6, x\in Z$ is

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

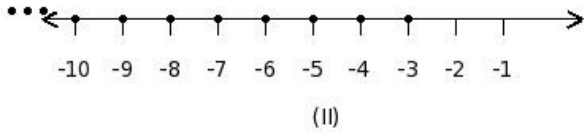
23. Which of the following is an inequation?

(i) $(4x+7)$ (ii) 9 (iii) $(7x+8)>0, x\in Z$ (iv) $(x+2)=0$

24. Identify the solution for the inequality $(2x+6) \geq 0, x \in Z$



(I)



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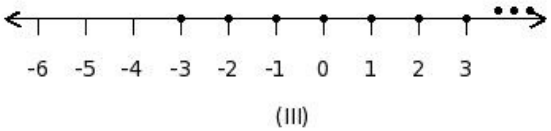

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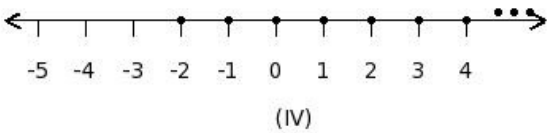

(IV)

(i) IV (ii) I (iii) III (iv) II

25. The simplified form of the inequality $(4x-7) \leq (-4x+2), x \in Z$ is

(i) $x \geq \frac{5}{4}, x \in Z$ (ii) $x > 1, x \in Z$ (iii) $x \leq \frac{5}{4}, x \in Z$ (iv) $x < 1, x \in Z$ (v) $x \leq \frac{9}{8}, x \in Z$

Assignment Key

1) (iii)	2) (v)	3) (i)	4) (iii)	5) (iv)	6) (v)
7) (iv)	8) (iii)	9) (iii)	10) (ii)	11) (iii)	12) (i)
13) (i)	14) (iii)	15) (ii)	16) (v)	17) (iv)	18) (iii)
19) (v)	20) (i)	21) (iii)	22) (iii)	23) (iii)	24) (iii)
25) (v)					