EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Linear Inequations

Grade : ICSE Grade VII

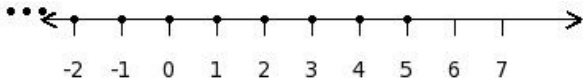
1. The solution set of the inequality $(-3x+3) \leq (5x+3), x \in Z$ is

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

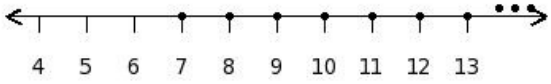
2. Find the solution set for the given inequation
   $(4x-12) \leq 0$, where the replacement set is {6,5,4,3,2,1,0}

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

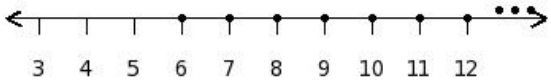
3. Which of the following figures represents the solution set
   {6,5,4,3,2,1,...}



(I)



(II)



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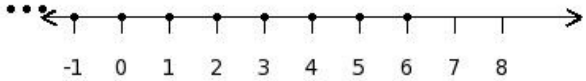


(IV)

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

4. Find the solution set of $(-7) \leq (x+2) < 2, x \in Z$

   (i) {-7,-6,-5,-4,-3,-2,-1,0,1} (ii) {-10,-9,-8,-7,-6,-5,-4,-3,-2} (iii) {-11,-10,-9,-8,-7,-6,-5,-4,-3}

   (iv) {-8,-7,-6,-5,-4,-3,-2,-1,0} (v) {-9,-8,-7,-6,-5,-4,-3,-2,-1}

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

   (i) $x \leq (-\frac{11}{8}), x \in Z$ (ii) $x < (-\frac{9}{8}), x \in Z$ (iii) $x < (-\frac{5}{4}), x \in Z$ (iv) $x \geq (-\frac{11}{8}), x \in Z$ (v) $x > (-\frac{9}{8}), x \in Z$

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

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

7. Find the solution set for the given inequation
   $(x-7) > 0$, where the replacement set is {5,6,7,8,9,10,11}

   (i) {8,9,10,11,12} (ii) {7,6,5,4,3} (iii) {8,9,10,11} (iv) {6,5,4,3,2} (v) {7,8,9,10,11}

8. Which of the following inequations is the same as $(5x-1)\geq(-5x), x\in Z$

(i) $(8x+2)\geq(-2x+3), x\in Z$ (ii) $(8x+2)<(-5x), x\in Z$ (iii) $(8x+2)>(-5x), x\in Z$

(iv) $(5x-1)<(-2x+3), x\in Z$ (v) $(5x-1)>(-2x+3), x\in Z$

9. Find the solution set of $12\leq(8x+2)\leq 24, x\in Z$

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

10. Which of the following inequations is the same as $(-5x+5)\leq(5x+3), x\in Z$

(i) $(-10x+8)>(5x+3), x\in Z$ (ii) $(-10x+8)<(5x+3), x\in Z$ (iii) $(-10x+8)\leq 6, x\in Z$

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

11. Which of the following inequations is not the same as $(-3x-6)\geq(x+2), x\in Z$

(i) $(9x+18)\leq(-3x-6), x\in Z$ (ii) $(-12x-24)\geq(4x+8), x\in Z$ (iii) $(-9x-18)\geq(3x+6), x\in Z$

(iv) $(-12x-24)\geq(3x+6), x\in Z$ (v) $(-18x-36)\geq(6x+12), x\in Z$

12. The simplified form of the inequality $(-7x-6)\geq(x-6), x\in Z$ is

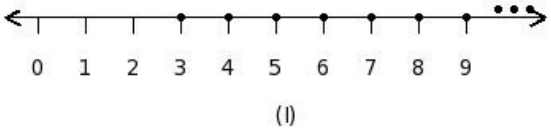
(i) $x>\frac{1}{8}, x\in Z$ (ii) $x\geq(-\frac{1}{8}), x\in Z$ (iii) $x<\frac{1}{8}, x\in Z$ (iv) $x\leq(-\frac{1}{8}), x\in Z$ (v) $x\leq 0, x\in Z$

13. Which of the following inequations is the same as $(-2x+7)\leq 2x, x\in Z$

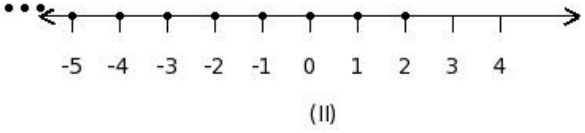
(i) $(-4x+16)<2x, x\in Z$ (ii) $(-4x+16)>2x, x\in Z$ (iii) $(-4x+16)\leq 9, x\in Z$ (iv) $(-2x+7)<9, x\in Z$

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

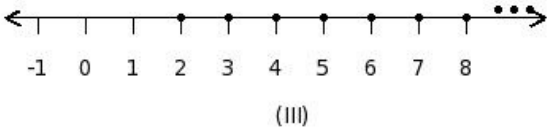
14. Identify the solution for the inequality $(4x-8)<0, x\in Z$



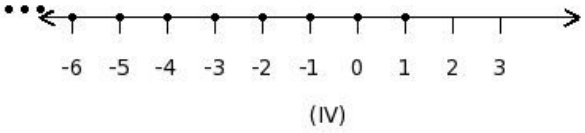
(I)



(II)



(III)



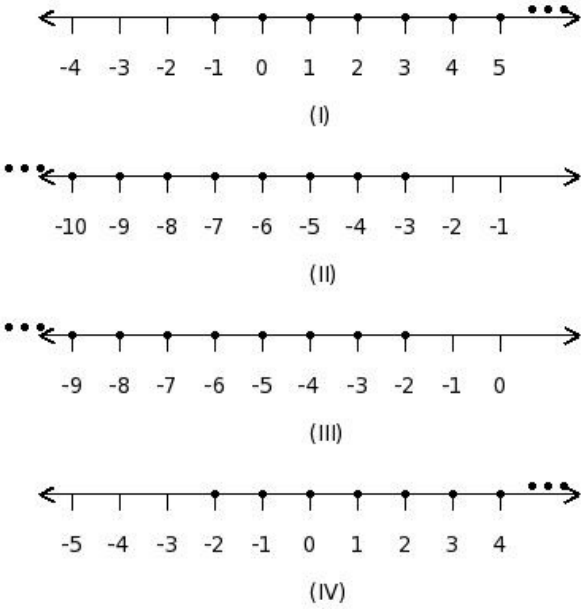
(IV)

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

15. The simplified form of the inequality $(-8x+3)<(-2x-1), x\in Z$ is

(i) $x\leq\frac{1}{2}, x\in Z$ (ii) $x>\frac{5}{6}, x\in Z$ (iii) $x\geq\frac{1}{2}, x\in Z$ (iv) $x>\frac{2}{3}, x\in Z$ (v) $x<\frac{5}{6}, x\in Z$

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



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

17. The simplified form of the inequality $(2x+4)\leq(-1), x\in Z$ is

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

18. Which of the following inequations is not the same as $(5x+9)>(4x+7), x\in Z$

(i) $(-2x+4)>(12x-2), x\in Z$ (ii) $(8x+11)>(7x+9), x\in Z$ (iii) $(11x+3)>(10x+1), x\in Z$

(iv) $(-2x+4)>(-3x+2), x\in Z$ (v) $13x>(12x-2), x\in Z$

19. Which of the following inequations is the same as $(9x+1)\leq(5x+2), x\in Z$

(i) $(63x+7)>(5x+2), x\in Z$ (ii) $(63x+7)<(5x+2), x\in Z$ (iii) $(9x+1)>(35x+14), x\in Z$

(iv) $(63x+7)\leq(35x+14), x\in Z$ (v) $(9x+1)<(35x+14), x\in Z$

20. Which of the following inequations is the same as $(-2x-1)<(-3x+9), x\in Z$

(i) $(-2x-1)<(2x+2), x\in Z$ (ii) $(3x-8)<(-3x+9), x\in Z$ (iii) $(-2x-1)>(2x+2), x\in Z$

(iv) $(3x-8)<(2x+2), x\in Z$ (v) $(3x-8)>(-3x+9), x\in Z$

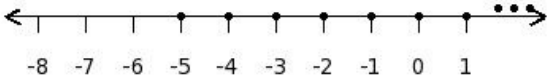
21. Find the solution set for the given inequation $(-6x+6)\geq 0$, where the replacement set is {4,3,2,1,0,-1,-2}

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

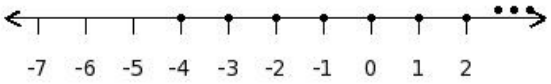
22. The simplified form of the inequality $(-6x-3) \leq (-9x+5), x \in Z$ is

(i) $x < \frac{7}{3}, x \in Z$ (ii) $x > \frac{7}{3}, x \in Z$ (iii) $x \leq \frac{8}{3}, x \in Z$ (iv) $x \geq 3, x \in Z$ (v) $x \leq 3, x \in Z$

23. Identify the solution for the inequality $(-8x-40) \leq 0, x \in Z$



(I)



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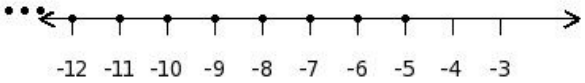

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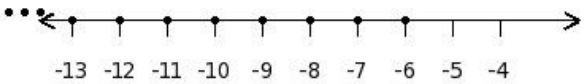

(IV)

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

24. The simplified form of the inequality $(-2x-4) \geq (-8), x \in Z$ is

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

25. The solution set of the inequality $(4x-5) \geq (-7), x \in Z$ is

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

Assignment Key

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