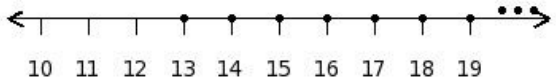
EduSahara™ Worksheet

Name : Chapter Based Worksheet

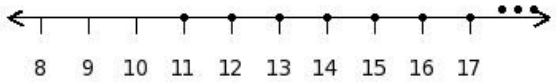
Chapter : Linear Inequations

Grade : ICSE Grade VIII

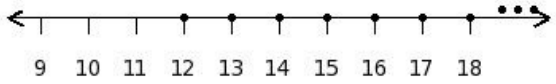
1. Identify the solution for the inequality
$(9x+72)>0, x\in N$



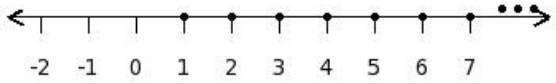
(I)



(II)



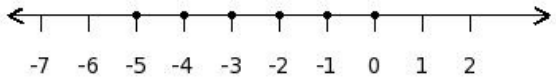
(III)



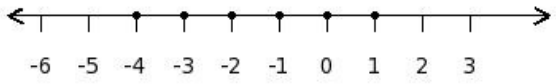
(IV)

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

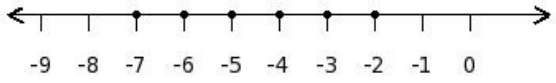
2. Identify the solution for the inequality
$(-2)>(4x-6)\geq(-26), x\in Z$



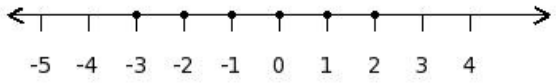
(I)



(II)



(III)



(IV)

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

3. The simplified form of the inequality $(4x+6)\leq 5, x\in Z$ is

(i) $x\leq 0, x\in Z$ (ii) $x<(-\frac{1}{2}), x\in Z$ (iii) $x>(-\frac{1}{2}), x\in Z$ (iv) $x\geq 0, x\in Z$ (v) $x\leq(-\frac{1}{4}), x\in Z$

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

(i) $(10x-11)<(12x-2), x \in Z$ (ii) $(10x-11)>(6x+3), x \in Z$ (iii) $(10x-11)<(6x+3), x \in Z$

(iv) $(4x-6)>(12x-2), x \in Z$ (v) $(4x-6)<(12x-2), x \in Z$

5. Which of the following statements are true?

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

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

6. The solution set of the inequality $(5x+9) \leq 3, x \in Z$ is

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

7. Which of the following inequations is the same as
$(5x-6)>(-x-3), x \in Z$

(i) $(5x-6)<(-2x-10), x \in Z$ (ii) $(4x-13)>(-2x-10), x \in Z$ (iii) $(4x-13)>(-x-3), x \in Z$

(iv) $(4x-13)<(-x-3), x \in Z$ (v) $(5x-6)>(-2x-10), x \in Z$

8. Find the solution set of given inequality
$(-2x+12)>0, x \in Z$

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

9. The solution set of the inequality $(2x-3)>(-6x-4), x \in Z$ is

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

10. The simplified form of the inequality $(-9x-5)>6, x \in Z$ is

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

11. Find the solution set for the given inequation
$(-3x+15) \leq 0$, where the replacement set is $\{2,3,4,5,6,7,8\}$

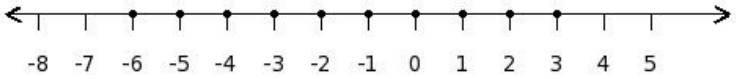
(i) {5,6,7,8} (ii) {5,6,7,8,9} (iii) {4,3,2,1,0} (iv) {6,7,8,9,10} (v) {5,4,3,2,1}

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

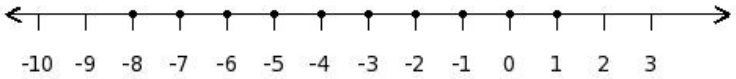
(i) $(-12x-7) \geq (3x-9), x \in Z$ (ii) $(x-8) \geq (16x+2), x \in Z$ (iii) $(x-8) \geq (16x-10), x \in Z$

(iv) $(x+4) \geq (16x+2), x \in Z$ (v) $(-14x+6) \geq (x+4), x \in Z$

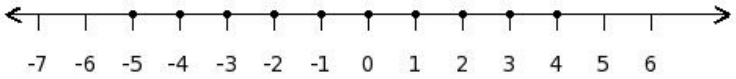
13. Identify the solution for the inequality
$5>(x+1)>(-6), x\in Z$



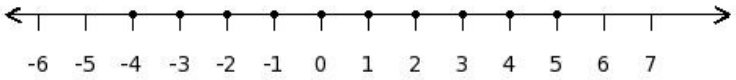
(I)



(II)



(III)



(IV)

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

14. Which of the following inequations is not the same as
$(-5x+5)\leq(4x+9), x\in Z$

(i) $x\leq(10x+4), x\in Z$ (ii) $(-10x+2)\leq(-x+6), x\in Z$ (iii) $(-8x+12)\leq(x+16), x\in Z$

(iv) $(x+10)\leq(10x+14), x\in Z$ (v) $x\leq(x+16), x\in Z$

15. Which of the following is not an inequation?

(i) $(4x-1)<(-9x-1), x\in Z$ (ii) $(-3x-9)>(-7x-2), x\in Z$ (iii) $(x+9)\leq(-8x+5), x\in Z$

(iv) $(-4x-2)=(3x+1)$ (v) $(8x+1)\geq(-3x+4), x\in Z$

16. The simplified form of the inequality $(3x-9)>(-x+9), x\in Z$ is

(i) $x\geq\frac{19}{4}, x\in Z$ (ii) $x\leq\frac{19}{4}, x\in Z$ (iii) $x>\frac{17}{4}, x\in Z$ (iv) $x<\frac{17}{4}, x\in Z$ (v) $x>\frac{9}{2}, x\in Z$

17. Find the solution set of $0\leq 7x<13, x\in Z$

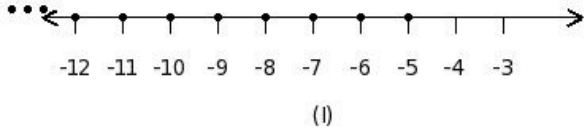
(i) {2,3} (ii) {-1,0} (iii) {1,2} (iv) {0,1} (v) {-2,-1}

18. Which of the following is not an inequation?

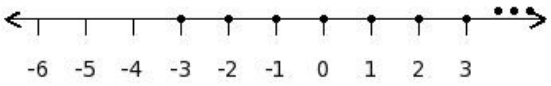
(i) $(-x-4)\geq(-8), x\in Z$ (ii) $(7x-5)<(-5), x\in Z$ (iii) $(3x+8)\leq 9, x\in Z$ (iv) $(-8x-7)=7$

(v) $(3x-6)>(-3), x\in Z$

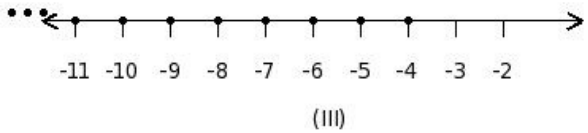
19. Identify the solution for the inequality $(-4x-16)<0, x\in Z$



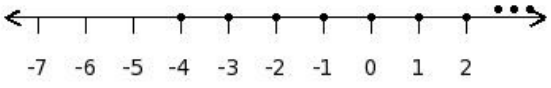
(I)



(II)



(III)



(IV)

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

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

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

21. Find the solution set for the given inequation $(x+7)>0$, where the replacement set is {-9,-8,-7,-6,-5,-4,-3}

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

22. Find the solution set of $15>(8x+2)>(-13), x\in Z$

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

23. Find the solution set of $4\geq(9x+7)>(-25), x\in Z$

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

24. Which of the following inequations is the same as $(9x-2)\leq(-6x+4), x\in Z$

(i) $(-27x+6)>(-6x+4), x\in Z$ (ii) $(9x-2)>(18x-12), x\in Z$ (iii) $(-27x+6)\geq(18x-12), x\in Z$

(iv) $(9x-2)<(18x-12), x\in Z$ (v) $(-27x+6)<(-6x+4), x\in Z$

25. Which of the following inequations is the same as $(x-2)>(-x-4), x\in Z$

(i) $(x-2)<(3x+12), x\in Z$ (ii) $(-3x+6)>(-x-4), x\in Z$ (iii) $(x-2)>(3x+12), x\in Z$

(iv) $(-3x+6)<(3x+12), x\in Z$ (v) $(-3x+6)<(-x-4), x\in Z$

Assignment Key

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