EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Linear Inequations

Grade : ICSE Grade X

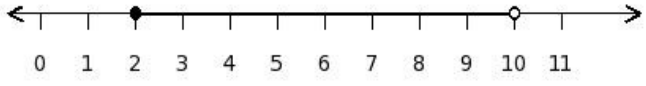
1. Which of the following inequations is the same as $(-5x+4)<(-4x+6), x\in Z$

(i) $(40x-32)>(-4x+6), x\in Z$ (ii) $(-5x+4)>(32x-48), x\in Z$ (iii) $(40x-32)<(-4x+6), x\in Z$

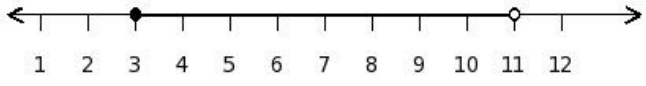
(iv) $(40x-32)>(32x-48), x\in Z$ (v) $(-5x+4)<(32x-48), x\in Z$

2. Identify the solution for the inequality $11\leq(2x+9)<27, x\in R$

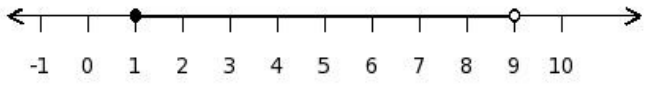
(I)



(II)



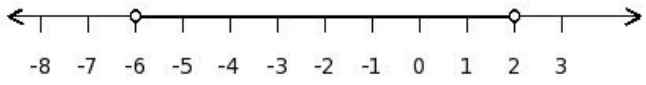
(III)



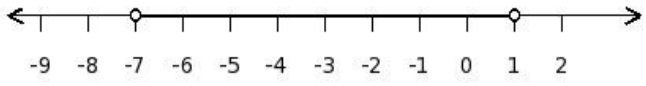
(IV)

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

3. Identify the solution for the inequality $(-8)<(-7x-1)<48, x\in R$



(I)



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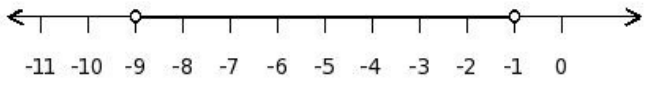

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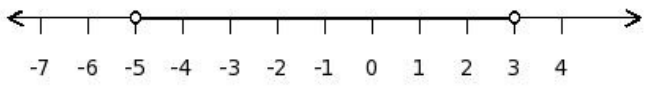
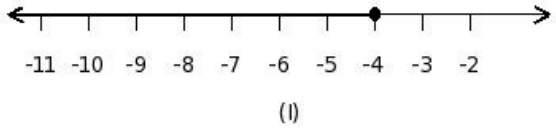


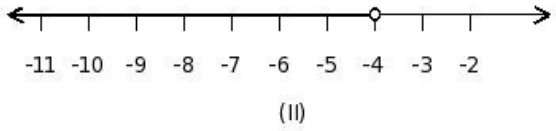
(IV)

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

4. Which of the following figures represents the solution set of $(x+4) \leq 0, x \in R$



(I)



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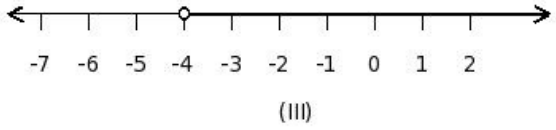

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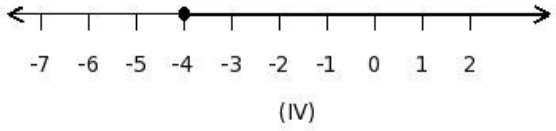
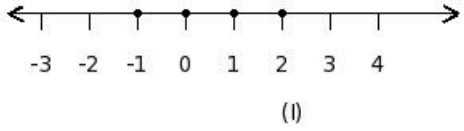


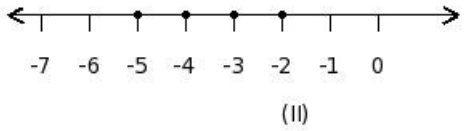
(IV)

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

5. Identify the solution for the inequality $(-7) \leq (-6x-2) \leq 19, x \in Z$



(I)



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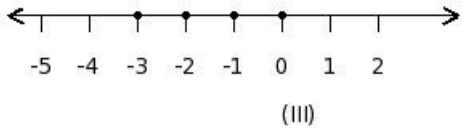

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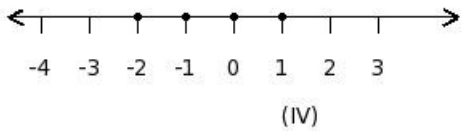
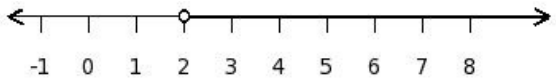


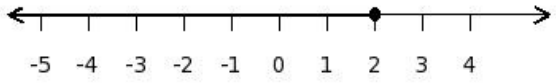
(IV)

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

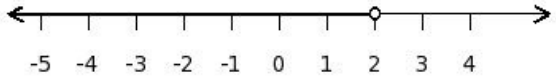
6. Which of the following figures represents the solution set of $(-3x+6)>0, x\in R$



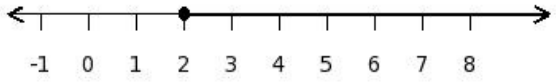
(I)



(II)



(III)



(IV)

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

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

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

8. Which of the following inequations is not the same as $(-5x+7)\geq(2x-7), x\in Z$

(i) $(4x+15)\geq(11x+1), x\in Z$ (ii) $(-13x+1)\geq(-6x-13), x\in Z$ (iii) $(4x-1)\geq(-6x-13), x\in Z$

(iv) $(4x-1)\geq(11x-15), x\in Z$ (v) $(-3x-1)\geq(4x-15), x\in Z$

9. Find the solution set of given inequality $(x+2)<0, x\in Z$

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

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

(i) $(3x+8)<(9x+6), x\in Z$ (ii) $(3x+8)<(16x+10), x\in Z$ (iii) $(3x+8)>(9x+6), x\in Z$

(iv) $(-4x+4)<(16x+10), x\in Z$ (v) $(-4x+4)>(16x+10), x\in Z$

11. Find the solution set of $16>(8x+1)>(-12), x\in Z$

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

12. Which of the following inequations is not the same as $(-2x+7)>(x-4), x\in Z$

(i) $(-6x+2)>(-3x-9), x\in Z$ (ii) $(5x+4)>(8x-7), x\in Z$ (iii) $(6x+13)>(9x+2), x\in Z$

(iv) $(-8x+11)>(-5x), x\in Z$ (v) $(6x+13)>(8x-7), x\in Z$

13. Find the solution set of $7<(2x-6)<15, x\in Z$

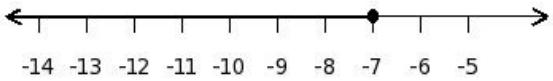
(i) {6,7,8,9} (ii) {7,8,9,10} (iii) {9,10,11,12} (iv) {8,9,10,11} (v) {5,6,7,8}

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

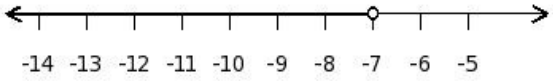
(i) $(-54x-36)\leq(36x-6), x\in Z$ (ii) $(-54x-36)>(6x-1), x\in Z$ (iii) $(-9x-6)<(36x-6), x\in Z$

(iv) $(-54x-36)<(6x-1), x\in Z$ (v) $(-9x-6)>(36x-6), x\in Z$

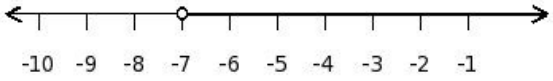
15. Which of the following figures represents the solution set of
$(8x+56)\geq 0, x\in R$



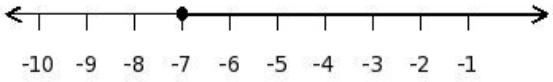
(I)



(II)



(III)



(IV)

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

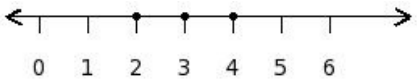
16. The simplified form of the inequality $(-6x-3)\leq(3x+5), x\in Z$ is

(i) $x>(-\frac{7}{9}), x\in Z$ (ii) $x<(-\frac{7}{9}), x\in Z$ (iii) $x\geq(-\frac{8}{9}), x\in Z$ (iv) $x\geq(-1), x\in Z$ (v) $x\leq(-1), x\in Z$

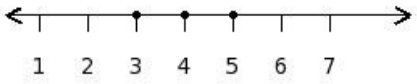
17. Find the solution set of given inequality
$(-7x-28)>0, x\in Z$

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

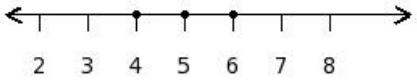
18. Identify the solution for the inequality
$14 \leq (5x+8) < 29, x \in Z$



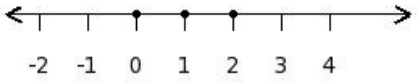
(I)



(II)



(III)



(IV)

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

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

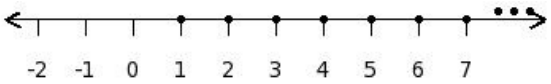
(i) {2,3,4,5,6,...} (ii) {0,1,2,3,4,...} (iii) {-1,-2,-3,-4,-5,...} (iv) {1,2,3,4,5,...} (v) {1,0,-1,-2,-3,...}

20. Which of the following inequations is the same as
$(-3x+4) \leq (3x-9), x \in Z$

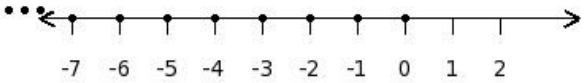
(i) $(-3x+4) > (6x-12), x \in Z$ (ii) $1 \leq (6x-12), x \in Z$ (iii) $1 > (3x-9), x \in Z$ (iv) $(-3x+4) < (6x-12), x \in Z$

(v) $1 < (3x-9), x \in Z$

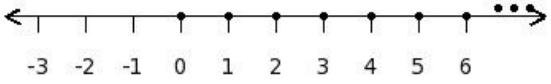
21. Which of the following figures represents the solution set
{0,1,2,3,4,5,...}



(I)



(II)



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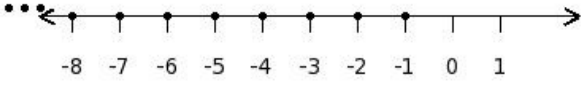
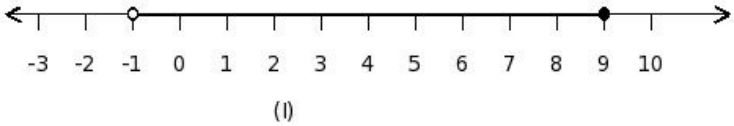


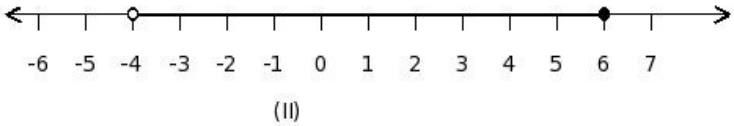
(IV)

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

22. Identify the solution for the inequality $(-17)<(8x-1)\leq 63, x\in R$



(I)



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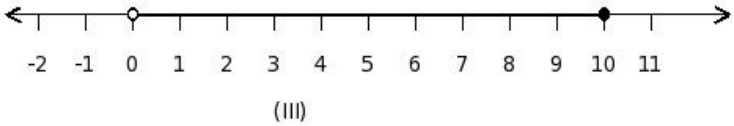

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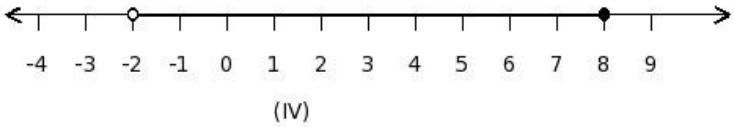

(IV)

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

23. Find the solution set of $(-5)\leq(-6x-3)<21, x\in Z$

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

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

(i) $(2x+1)\leq(-14x-13), x\in Z$ (ii) $(4x-4)\leq(3x-9), x\in Z$ (iii) $(x+8)\leq 3, x\in Z$

(iv) $(-13x-8)\leq(-14x-13), x\in Z$ (v) $(2x+1)\leq(x-4), x\in Z$

25. Find the solution set of given inequality $(4x+24)\leq 0, x\in Z$

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

Assignment Key

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