EduSahara™ Learning Center Assignment

Grade : Class VII, ICSE
Chapter : Linear Inequations
Name : Solving Linear Inequations
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1. Solve the inequation $(-5x + 10) < 0$, $x \in Z$

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

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2. Solve the inequation $(4x - 32) > 0$, $x \in Z$

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

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3. Solve the inequation $(2x + 14) \leq 0$, $x \in Z$

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

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4. Solve the inequation $(-6x - 18) \geq 0$, $x \in Z$

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

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5. Find the solution set for the given inequation
   $(-7x + 21) < 0$, where the replacement set is {1,2,3,4,5,6,7}

(i) {4,5,6,7,8}

(ii) {3,2,1,0,-1}

(iii) {4,5,6,7}

(iv) {3,4,5,6,7}

(v) {2,1,0,-1,-2}

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

(i) {6,7,8,9,10}

(ii) {5,4,3,2,1}

(iii) {5,6,7,8,9}

(iv) {4,3,2,1}

(v) {4,3,2,1,0}

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7. Find the solution set for the given inequation
$(-5x - 35) \leq 0$, where the replacement set is {-10,-9,-8,-7,-6,-5,-4}

(i) {-7,-6,-5,-4,-3}

(ii) {-7,-8,-9,-10,-11}

(iii) {-6,-5,-4,-3,-2}

(iv) {-8,-9,-10,-11,-12}

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

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

(i) {-3,-2,-1,0,1}

(ii) {-5,-6,-7,-8,-9}

(iii) {-4,-3,-2,-1,0}

(iv) {-4,-5,-6,-7}

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

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9. The solution set of the inequality $(-x - 6) < (2x - 5), x \in Z$ is

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

(ii) {3,2,1,0,-1,...}

(iii) {2,3,4,5,6,...}

(iv) {0,1,2,3,4,...}

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10. The solution set of the inequality $(-8x+3) > (-9x+9)$, $x \in Z$ is

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

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

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

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

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

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13. The solution set of the inequality $(-2x+8) < 5$, $x \in Z$ is

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

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14. The solution set of the inequality $(3x-3) > 0$, $x \in Z$ is

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

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

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

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16. The solution set of the inequality $(-5x-4) \geq 0$, $x \in Z$ is

(i) {9,10,11,12,13,...}
(ii) {-2,-3,-4,-5,-6,...}
(iii) {0,1,2,3,4,...}
(iv) {-1,-2,-3,-4,-5,...}

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17. The simplified form of the inequality $(9x+6) < 6$, $x \in Z$ is

(i) $x \geq \frac{1}{9}$, $x \in Z$
(ii) $x > (-\frac{1}{9})$, $x \in Z$
(iii) $x \leq \frac{1}{9}$, $x \in Z$
(iv) $x < 0$, $x \in Z$
(v) $x < (-\frac{1}{9})$, $x \in Z$

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18. The simplified form of the inequality $(4x-6) > (-6)$, $x \in Z$ is

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

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19. The simplified form of the inequality $(-5x-1) \leq 8$, $x \in Z$ is

(i) $x < \left(-\frac{8}{5}\right), x \in Z$

(ii) $x > \left(-\frac{8}{5}\right), x \in Z$

(iii) $x \leq (-2), x \in Z$

(iv) $x \geq (-2), x \in Z$

(v) $x \geq \left(-\frac{9}{5}\right), x \in Z$

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20. The simplified form of the inequality $(5x - 3) \geq (-7), x \in Z$ is

(i) $x \geq \left(-\frac{3}{5}\right), x \in Z$

(ii) $x > (-1), x \in Z$

(iii) $x < (-1), x \in Z$

(iv) $x \leq \left(-\frac{3}{5}\right), x \in Z$

(v) $x \geq \left(-\frac{4}{5}\right), x \in Z$

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21. The simplified form of the inequality $(2x + 7) < (7x + 8), x \in Z$ is

(i) $x < 0, x \in Z$

(ii) $x > 0, x \in Z$

(iii) $x \geq \left(-\frac{2}{5}\right), x \in Z$

(iv) $x > \left(-\frac{1}{5}\right), x \in Z$

(v) $x \leq \left(-\frac{2}{5}\right), x \in Z$

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

(i) $x \geq \frac{1}{2}, x \in Z$

(ii) $x > 0, x \in Z$

(iii) $x \leq \frac{1}{2}, x \in Z$

(iv) $x < 0 , x \in Z$

(v) $x > \frac{1}{4} , x \in Z$

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

(i) $x \leq 0 , x \in Z$

(ii) $x \geq \frac{1}{11} , x \in Z$

(iii) $x > (-\frac{1}{11}) , x \in Z$

(iv) $x \leq \frac{1}{11} , x \in Z$

(v) $x < (-\frac{1}{11}) , x \in Z$

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24. The simplified form of the inequality $(-6x - 8) \geq (2x + 4) , x \in Z$ is

(i) $x \leq (-\frac{3}{2}) , x \in Z$

(ii) $x \geq (-\frac{13}{8}) , x \in Z$

(iii) $x > (-\frac{11}{8}) , x \in Z$

(iv) $x \leq (-\frac{13}{8}) , x \in Z$

(v) $x < (-\frac{11}{8}) , x \in Z$

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25. Find the solution set of $3 < (3x - 2) < 20 , x \in Z$

(i) {4,5,6,7,8,9}

(ii) {1,2,3,4,5,6}

(iii) {0,1,2,3,4,5}

(iv) {3,4,5,6,7,8}

(v) {2,3,4,5,6,7}

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26. Find the solution set of $(-9) > (-x - 9) > (-18) , x \in Z$

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

(ii) {1,2,3,4,5,6,7,8}

(iii) {3,4,5,6,7,8,9,10}

(iv) {2,3,4,5,6,7,8,9}

(v) {0,1,2,3,4,5,6,7}

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27. Find the solution set of $(-2) \leq (2x-5) \leq 6$, $x \in Z$

(i) {4,5,6,7}

(ii) {1,2,3,4}

(iii) {2,3,4,5}

(iv) {3,4,5,6}

(v) {0,1,2,3}

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28. Find the solution set of $14 \geq (7x+9) \geq (-13)$, $x \in Z$

(i) {2,1,0,-1}

(ii) {-1,-2,-3,-4}

(iii) {0,-1,-2,-3}

(iv) {1,0,-1,-2}

(v) {-2,-3,-4,-5}

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29. Find the solution set of $(-7) < (-6x-8) \leq 19$, $x \in Z$

(i) {-3,-4,-5,-6}

(ii) {-2,-3,-4,-5}

(iii) {-1,-2,-3,-4}

(iv) {1,0,-1,-2}

(v) {0,-1,-2,-3}

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30. Find the solution set of $4 > (7x+5) \geq (-23)$, $x \in Z$

(i) {0,-1,-2,-3}

(ii) {-2,-3,-4,-5}

(iii) {1,0,-1,-2}

(iv) {-3,-4,-5,-6}

(v) {-1,-2,-3,-4}

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31. Find the solution set of $6 \leq (2x+8) < 14$, $x \in Z$

(i) {-3,-2,-1,0}

(ii) {1,2,3,4}

(iii) {-1,0,1,2}

(iv) {-2,-1,0,1}

(v) {0,1,2,3}

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32. Find the solution set of $(-10) \geq (-6x-5) > (-24)$, $x \in Z$

(i) {0,1,2}

(ii) {1,2,3}

(iii) {2,3,4}

(iv) {3,4,5}

(v) {-1,0,1}

Assignment Key

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