

EduSahara™ Learning Center Assignment

Grade : Class VIII, ICSE
Chapter : Linear Inequations
Name : Single Variable
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1. Solve the inequation $(-5x + 10) < 0, x \in \mathbb{Z}$

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

2. Solve the inequation $(-6x + 48) > 0, x \in \mathbb{Z}$

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

3. Solve the inequation $(8x + 48) \leq 0, x \in \mathbb{Z}$

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

4. Solve the inequation $(-9x + 27) \geq 0, x \in \mathbb{Z}$

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

Find the solution set for the given inequation

5. $(-8x - 24) < 0$, where the replacement set is $\{-5, -4, -3, -2, -1, 0, 1\}$

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

Find the solution set for the given inequation

6. $(-6x - 36) > 0$, where the replacement set is $\{-4, -5, -6, -7, -8, -9, -10\}$
- (i) $\{-6, -5, -4, -3, -2\}$
 - (ii) $\{-6, -7, -8, -9, -10\}$
 - (iii) $\{-5, -4, -3, -2, -1\}$
 - (iv) $\{-7, -8, -9, -10\}$
 - (v) $\{-7, -8, -9, -10, -11\}$
-

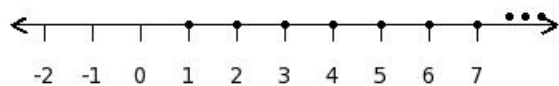
Find the solution set for the given inequation

7. $(4x + 4) \leq 0$, where the replacement set is $\{2, 1, 0, -1, -2, -3, -4\}$
- (i) $\{-1, 0, 1, 2, 3\}$
 - (ii) $\{-1, -2, -3, -4\}$
 - (iii) $\{0, 1, 2, 3, 4\}$
 - (iv) $\{-1, -2, -3, -4, -5\}$
 - (v) $\{-2, -3, -4, -5, -6\}$
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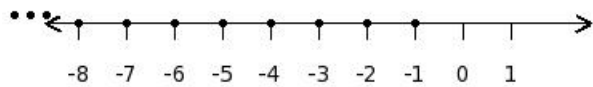
Find the solution set for the given inequation

8. $(5x + 35) \geq 0$, where the replacement set is $\{-10, -9, -8, -7, -6, -5, -4\}$
- (i) $\{-8, -9, -10, -11, -12\}$
 - (ii) $\{-7, -8, -9, -10, -11\}$
 - (iii) $\{-7, -6, -5, -4, -3\}$
 - (iv) $\{-7, -6, -5, -4\}$
 - (v) $\{-6, -5, -4, -3, -2\}$
-

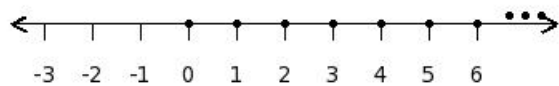
9. Identify the solution for the inequality $(-5x) < 0, x \in \mathbb{Z}$



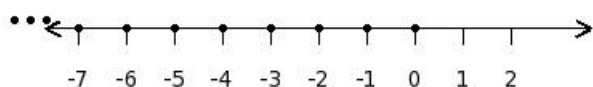
(I)



(II)



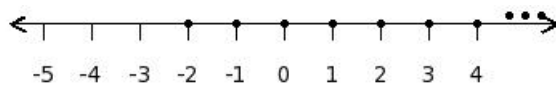
(III)



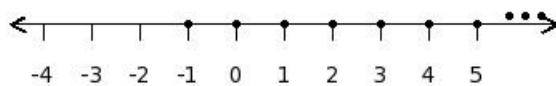
(IV)

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

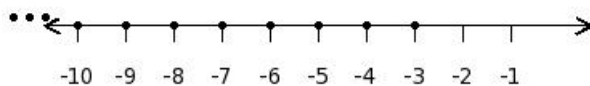
10. Identify the solution for the inequality $(-2x - 4) > 0, x \in \mathbb{Z}$



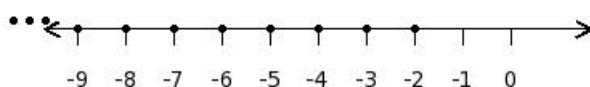
(I)



(II)



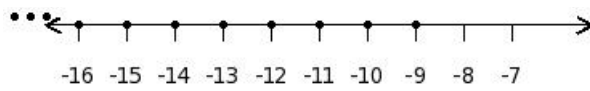
(III)



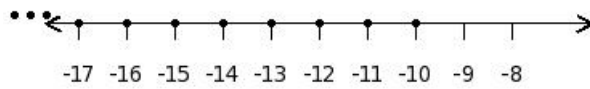
(IV)

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

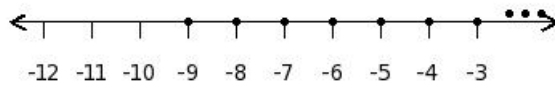
11. Identify the solution for the inequality $(-9x - 81) \leq 0, x \in \mathbb{Z}$



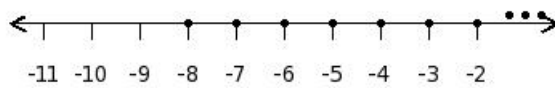
(I)



(II)



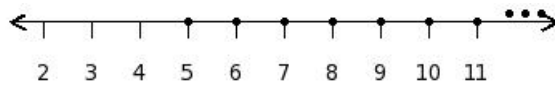
(III)



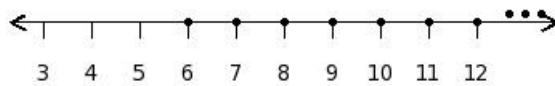
(IV)

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

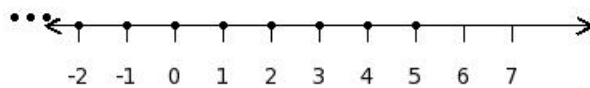
12. Identify the solution for the inequality $(5x - 25) \geq 0, x \in \mathbb{Z}$



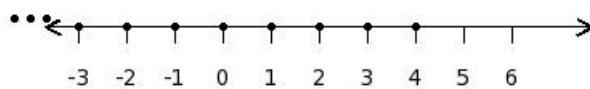
(I)



(II)



(III)



(IV)

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

13. Which of the following is an inequation?

(i) $(3x + 2) = 0$ (ii) $(5x + 7)$ (iii) $(-6x - 7) < 0, x \in \mathbb{Z}$ (iv) 1

14. Which of the following is not an inequation?

(i) $(4x - 9) \leq 8, x \in \mathbb{Z}$

- (ii) $(-9x + 2) \geq 8, x \in \mathbb{Z}$
 - (iii) $(9x + 9) < (-6), x \in \mathbb{Z}$
 - (iv) $(9x - 9) = 8$
 - (v) $(-7x + 2) > (-4), x \in \mathbb{Z}$
-

15. Which of the following is not an inequation?

- (i) $(4x - 3) = (-x - 6)$
 - (ii) $(-6x - 7) \leq (-5x - 3), x \in \mathbb{Z}$
 - (iii) $(-5x + 8) > (-6x - 8), x \in \mathbb{Z}$
 - (iv) $(4x - 6) \geq (6x + 1), x \in \mathbb{Z}$
 - (v) $(3x + 8) < (8x + 7), x \in \mathbb{Z}$
-

Which of the following inequations is the same as

16. $(-6x - 9) < (-8x - 9), x \in \mathbb{Z}$
- (i) $(-x - 18) > (-8x - 9), x \in \mathbb{Z}$
 - (ii) $(-x - 18) < (-8x - 9), x \in \mathbb{Z}$
 - (iii) $(-6x - 9) < (-3x - 18), x \in \mathbb{Z}$
 - (iv) $(-x - 18) < (-3x - 18), x \in \mathbb{Z}$
 - (v) $(-6x - 9) > (-3x - 18), x \in \mathbb{Z}$
-

Which of the following inequations is the same as

17. $(2x + 7) < (-9x - 8), x \in \mathbb{Z}$
- (i) $(-3x + 3) < (-14x - 12), x \in \mathbb{Z}$
 - (ii) $(-3x + 3) > (-9x - 8), x \in \mathbb{Z}$
 - (iii) $(2x + 7) < (-14x - 12), x \in \mathbb{Z}$
 - (iv) $(-3x + 3) < (-9x - 8), x \in \mathbb{Z}$

$$(v) \quad (2x + 7) > (-14x - 12), x \in \mathbb{Z}$$

Which of the following inequations is the same as

18. $(-2x - 6) \leq (5x - 8), x \in \mathbb{Z}$

(i) $(-2x - 6) < (13x - 5), x \in \mathbb{Z}$

(ii) $(6x - 3) > (5x - 8), x \in \mathbb{Z}$

(iii) $(6x - 3) \leq (13x - 5), x \in \mathbb{Z}$

(iv) $(-2x - 6) > (13x - 5), x \in \mathbb{Z}$

(v) $(6x - 3) < (5x - 8), x \in \mathbb{Z}$

Which of the following inequations is the same as

19. $(5x - 8) \leq (2x + 6), x \in \mathbb{Z}$

(i) $(7x - 15) > (2x + 6), x \in \mathbb{Z}$

(ii) $(7x - 15) < (2x + 6), x \in \mathbb{Z}$

(iii) $(5x - 8) > (4x - 1), x \in \mathbb{Z}$

(iv) $(5x - 8) < (4x - 1), x \in \mathbb{Z}$

(v) $(7x - 15) \leq (4x - 1), x \in \mathbb{Z}$

Which of the following inequations is the same as

20. $(x - 1) > (5x - 4), x \in \mathbb{Z}$

(i) $(x - 1) < (7x - 6), x \in \mathbb{Z}$

(ii) $(3x - 3) < (5x - 4), x \in \mathbb{Z}$

(iii) $(3x - 3) > (7x - 6), x \in \mathbb{Z}$

(iv) $(3x - 3) > (5x - 4), x \in \mathbb{Z}$

(v) $(x - 1) > (7x - 6), x \in \mathbb{Z}$

21. Which of the following inequations is the same as

$$(3x + 2) > (-5x + 4), x \in \mathbb{Z}$$

(i) $(3x + 2) > (-7x - 5), x \in \mathbb{Z}$

(ii) $(x - 7) < (-5x + 4), x \in \mathbb{Z}$

(iii) $(x - 7) > (-7x - 5), x \in \mathbb{Z}$

(iv) $(x - 7) > (-5x + 4), x \in \mathbb{Z}$

(v) $(3x + 2) < (-7x - 5), x \in \mathbb{Z}$

Which of the following inequations is the same as

22. $(4x - 8) \geq (6x + 4), x \in \mathbb{Z}$

(i) $(-3x - 7) < (6x + 4), x \in \mathbb{Z}$

(ii) $(4x - 8) > (-x + 5), x \in \mathbb{Z}$

(iii) $(4x - 8) < (-x + 5), x \in \mathbb{Z}$

(iv) $(-3x - 7) \geq (-x + 5), x \in \mathbb{Z}$

(v) $(-3x - 7) > (6x + 4), x \in \mathbb{Z}$

Which of the following inequations is the same as

23. $(-5x - 3) \geq (4x + 9), x \in \mathbb{Z}$

(i) $(-6) > (4x + 9), x \in \mathbb{Z}$

(ii) $(-5x - 3) < (9x + 6), x \in \mathbb{Z}$

(iii) $(-5x - 3) > (9x + 6), x \in \mathbb{Z}$

(iv) $(-6) \geq (9x + 6), x \in \mathbb{Z}$

(v) $(-6) < (4x + 9), x \in \mathbb{Z}$

Which of the following inequations is the same as

24. $(4x - 8) < (3x + 9), x \in \mathbb{Z}$

(i) $(4x - 8) < (21x + 63), x \in \mathbb{Z}$

$$(ii) \quad (4x - 8) > (21x + 63), x \in \mathbb{Z}$$

$$(iii) \quad (28x - 56) < (21x + 63), x \in \mathbb{Z}$$

$$(iv) \quad (28x - 56) > (3x + 9), x \in \mathbb{Z}$$

$$(v) \quad (28x - 56) < (3x + 9), x \in \mathbb{Z}$$

Which of the following inequations is the same as

25. $(-8x - 2) \leq (-6x + 6), x \in \mathbb{Z}$

$$(i) \quad (-40x - 10) < (-6x + 6), x \in \mathbb{Z}$$

$$(ii) \quad (-8x - 2) > (-30x + 30), x \in \mathbb{Z}$$

$$(iii) \quad (-40x - 10) \leq (-30x + 30), x \in \mathbb{Z}$$

$$(iv) \quad (-8x - 2) < (-30x + 30), x \in \mathbb{Z}$$

$$(v) \quad (-40x - 10) > (-6x + 6), x \in \mathbb{Z}$$

Which of the following inequations is the same as

26. $(6x - 1) > 9x, x \in \mathbb{Z}$

$$(i) \quad (30x - 5) > 45x, x \in \mathbb{Z}$$

$$(ii) \quad (30x - 5) < 9x, x \in \mathbb{Z}$$

$$(iii) \quad (6x - 1) > 45x, x \in \mathbb{Z}$$

$$(iv) \quad (6x - 1) < 45x, x \in \mathbb{Z}$$

$$(v) \quad (30x - 5) > 9x, x \in \mathbb{Z}$$

Which of the following inequations is the same as

27. $(9x - 6) \geq (8x + 5), x \in \mathbb{Z}$

$$(i) \quad (63x - 42) > (8x + 5), x \in \mathbb{Z}$$

$$(ii) \quad (63x - 42) < (8x + 5), x \in \mathbb{Z}$$

$$(iii) \quad (9x - 6) > (56x + 35), x \in \mathbb{Z}$$

$$(iv) (9x - 6) < (56x + 35), x \in \mathbb{Z}$$

$$(v) (63x - 42) \geq (56x + 35), x \in \mathbb{Z}$$

Which of the following inequations is not the same as

28. $(-5x - 7) < (-8x - 4), x \in \mathbb{Z}$

(i) $(-x) < (-4x + 3), x \in \mathbb{Z}$

(ii) $(-x) < (-16x + 3), x \in \mathbb{Z}$

(iii) $(-8x + 1) < (-11x + 4), x \in \mathbb{Z}$

(iv) $(-11) < (-3x - 8), x \in \mathbb{Z}$

(v) $(-13x) < (-16x + 3), x \in \mathbb{Z}$

Which of the following inequations is not the same as

29. $9x < (-4x + 9), x \in \mathbb{Z}$

(i) $(14x + 5) < (x + 14), x \in \mathbb{Z}$

(ii) $(x - 4) < (-12x + 5), x \in \mathbb{Z}$

(iii) $(6x - 7) < (-7x + 2), x \in \mathbb{Z}$

(iv) $(2x + 9) < (-11x + 18), x \in \mathbb{Z}$

(v) $(x - 4) < (-11x + 18), x \in \mathbb{Z}$

Which of the following inequations is not the same as

30. $(6x - 2) \leq (4x + 4), x \in \mathbb{Z}$

(i) $(15x - 8) \leq (12x + 7), x \in \mathbb{Z}$

(ii) $(14x + 1) \leq (12x + 7), x \in \mathbb{Z}$

(iii) $(9x + 4) \leq (7x + 10), x \in \mathbb{Z}$

(iv) $(14x + 7) \leq (12x + 13), x \in \mathbb{Z}$

(v) $(15x - 8) \leq (13x - 2), x \in \mathbb{Z}$

Which of the following inequations is not the same as

31. $(8x - 8) \leq (-7x + 9), x \in \mathbb{Z}$
- (i) $(17x + 1) \leq (2x + 18), x \in \mathbb{Z}$
- (ii) $(-x) \leq (-16x + 17), x \in \mathbb{Z}$
- (iii) $(17x + 1) \leq (-4x + 7), x \in \mathbb{Z}$
- (iv) $(-x - 17) \leq (-16x), x \in \mathbb{Z}$
- (v) $(11x - 10) \leq (-4x + 7), x \in \mathbb{Z}$
-

Which of the following inequations is not the same as

32. $(-7x - 7) > (7x - 8), x \in \mathbb{Z}$
- (i) $(-11x - 1) > (3x - 2), x \in \mathbb{Z}$
- (ii) $(-12x - 15) > (2x - 16), x \in \mathbb{Z}$
- (iii) $(-11x - 1) > (3x - 15), x \in \mathbb{Z}$
- (iv) $(-11) > (14x - 12), x \in \mathbb{Z}$
- (v) $(-11x - 14) > (3x - 15), x \in \mathbb{Z}$
-

Which of the following inequations is not the same as

33. $(-3x + 6) > (x - 4), x \in \mathbb{Z}$
- (i) $(-10x + 10) > (-6x), x \in \mathbb{Z}$
- (ii) $(-10x + 10) > (-8x - 5), x \in \mathbb{Z}$
- (iii) $(-7x + 5) > (-3x - 5), x \in \mathbb{Z}$
- (iv) $(-5x + 9) > (-x - 1), x \in \mathbb{Z}$
- (v) $(-12x + 5) > (-8x - 5), x \in \mathbb{Z}$
-

Which of the following inequations is not the same as

34. $(-3x - 3) \geq (x - 4), x \in \mathbb{Z}$

(i) $(-11x - 7) \geq (-7x - 8), x \in \mathbb{Z}$

(ii) $x \geq (5x - 1), x \in \mathbb{Z}$

(iii) $2x \geq (6x - 1), x \in \mathbb{Z}$

(iv) $(2x + 1) \geq (6x - 1), x \in \mathbb{Z}$

(v) $(2x + 1) \geq 6x, x \in \mathbb{Z}$

Which of the following inequations is not the same as

35. $(9x + 4) \geq (7x + 3), x \in \mathbb{Z}$

(i) $(10x + 4) \geq (-x + 1), x \in \mathbb{Z}$

(ii) $(11x + 5) \geq (9x + 4), x \in \mathbb{Z}$

(iii) $(13x + 4) \geq (11x + 3), x \in \mathbb{Z}$

(iv) $(x + 2) \geq (-x + 1), x \in \mathbb{Z}$

(v) $(10x + 4) \geq (8x + 3), x \in \mathbb{Z}$

36. The solution set of the inequality $(-8x - 9) < (-2x + 6), x \in \mathbb{Z}$ is

(i) $\{-2, -1, 0, 1, 2, \dots\}$

(ii) $\{0, 1, 2, 3, 4, \dots\}$

(iii) $\{-3, -4, -5, -6, -7, \dots\}$

(iv) $\{-3, -2, -1, 0, 1, \dots\}$

37. The solution set of the inequality $(x - 5) > (8x + 1), x \in \mathbb{Z}$ is

(i) $\{-1, -2, -3, -4, -5, \dots\}$

(ii) $\{1, 2, 3, 4, 5, \dots\}$

(iii) $\{0, 1, 2, 3, 4, \dots\}$

(iv) $\{0, -1, -2, -3, -4, \dots\}$

38. The solution set of the inequality $(2x - 8) \leq (-9x + 8), x \in \mathbb{Z}$ is

(i) $\{1, 0, -1, -2, -3, \dots\}$

(ii) $\{2, 3, 4, 5, 6, \dots\}$

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

39. The solution set of the inequality $(-5x + 5) \geq (-3x - 4)$, $x \in \mathbb{Z}$ is

(i) $\{4, 3, 2, 1, 0, \dots\}$

(ii) $\{5, 6, 7, 8, 9, \dots\}$

(iii) $\{2, 3, 4, 5, 6, \dots\}$

(iv) $\{0, -1, -2, -3, -4, \dots\}$

40. The solution set of the inequality $(-8x - 8) < (-8)$, $x \in \mathbb{Z}$ is

(i) $\{-5, -6, -7, -8, -9, \dots\}$

(ii) $\{1, 2, 3, 4, 5, \dots\}$

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

(iv) $\{-1, -2, -3, -4, -5, \dots\}$

41. The solution set of the inequality $(9x - 3) > 0$, $x \in \mathbb{Z}$ is

(i) $\{1, 2, 3, 4, 5, \dots\}$

(ii) $\{0, -1, -2, -3, -4, \dots\}$

(iii) $\{3, 4, 5, 6, 7, \dots\}$

42. The solution set of the inequality $(-8x - 6) \leq (-2)$, $x \in \mathbb{Z}$ is

(i) $\{3, 2, 1, 0, -1, \dots\}$

(ii) $\{-1, -2, -3, -4, -5, \dots\}$

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

(iv) $\{0, 1, 2, 3, 4, \dots\}$

43. The solution set of the inequality $(-4x - 3) \geq 8$, $x \in \mathbb{Z}$ is

(i) $\{-2, -1, 0, 1, 2, \dots\}$

(ii) $\{-3, -4, -5, -6, -7, \dots\}$

(iii) $\{-1, -2, -3, -4, -5, \dots\}$

(iv) $\{1, 0, -1, -2, -3, \dots\}$

44. The simplified form of the inequality $(x - 6) < 1$, $x \in \mathbb{Z}$ is

(i) $x \geq 8, x \in \mathbb{Z}$

(ii) $x < 6, x \in \mathbb{Z}$

(iii) $x \leq 8, x \in \mathbb{Z}$

(iv) $x > 6, x \in \mathbb{Z}$

(v) $x < 7, x \in \mathbb{Z}$

45. The simplified form of the inequality $7x > (-9), x \in \mathbb{Z}$ is

(i) $x > (-\frac{9}{7}), x \in \mathbb{Z}$

(ii) $x > (-\frac{10}{7}), x \in \mathbb{Z}$

(iii) $x \leq (-\frac{8}{7}), x \in \mathbb{Z}$

(iv) $x \geq (-\frac{8}{7}), x \in \mathbb{Z}$

(v) $x < (-\frac{10}{7}), x \in \mathbb{Z}$

46. The simplified form of the inequality $(6x + 5) \leq 8, x \in \mathbb{Z}$ is

(i) $x < \frac{1}{3}, x \in \mathbb{Z}$

(ii) $x > \frac{1}{3}, x \in \mathbb{Z}$

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

(iv) $x \geq \frac{2}{3}, x \in \mathbb{Z}$

(v) $x \leq \frac{2}{3}, x \in \mathbb{Z}$

47. The simplified form of the inequality $(6x + 9) \geq (-4), x \in \mathbb{Z}$ is

(i) $x \geq (-\frac{13}{6}), x \in \mathbb{Z}$

(ii) $x > (-\frac{7}{3}), x \in \mathbb{Z}$

(iii) $x < (-\frac{7}{3}), x \in \mathbb{Z}$

$$(iv) \quad x \leq (-2), x \in \mathbb{Z}$$

$$(v) \quad x \geq (-2), x \in \mathbb{Z}$$

48. The simplified form of the inequality $(8x - 4) < (5x + 3), x \in \mathbb{Z}$ is

$$(i) \quad x < 2, x \in \mathbb{Z}$$

$$(ii) \quad x < \frac{7}{3}, x \in \mathbb{Z}$$

$$(iii) \quad x > 2, x \in \mathbb{Z}$$

$$(iv) \quad x \geq \frac{8}{3}, x \in \mathbb{Z}$$

$$(v) \quad x \leq \frac{8}{3}, x \in \mathbb{Z}$$

49. The simplified form of the inequality $(-7x + 9) > (4x + 3), x \in \mathbb{Z}$ is

$$(i) \quad x \leq \frac{5}{11}, x \in \mathbb{Z}$$

$$(ii) \quad x < \frac{7}{11}, x \in \mathbb{Z}$$

$$(iii) \quad x > \frac{7}{11}, x \in \mathbb{Z}$$

$$(iv) \quad x \geq \frac{5}{11}, x \in \mathbb{Z}$$

$$(v) \quad x < \frac{6}{11}, x \in \mathbb{Z}$$

50. The simplified form of the inequality $(-5x - 8) \leq (x - 3), x \in \mathbb{Z}$ is

$$(i) \quad x \leq (-1), x \in \mathbb{Z}$$

$$(ii) \quad x < (-\frac{2}{3}), x \in \mathbb{Z}$$

$$(iii) \quad x > (-\frac{2}{3}), x \in \mathbb{Z}$$

$$(iv) \quad x \geq (-\frac{5}{6}), x \in \mathbb{Z}$$

$$(v) \quad x \geq (-1), x \in \mathbb{Z}$$

51. The simplified form of the inequality $(-x + 5) \geq (-3x + 1), x \in \mathbb{Z}$ is

(i) $x \geq (-2), x \in \mathbb{Z}$

(ii) $x < (-\frac{5}{2}), x \in \mathbb{Z}$

(iii) $x \geq (-\frac{3}{2}), x \in \mathbb{Z}$

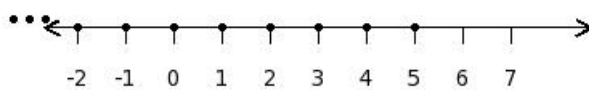
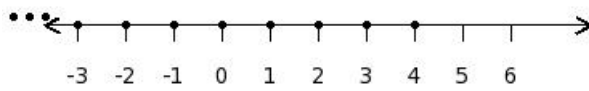
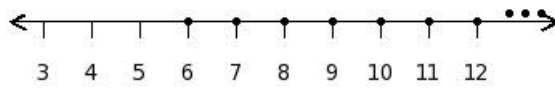
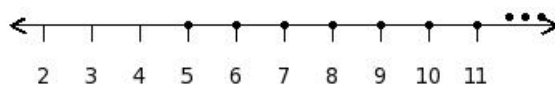
(iv) $x > (-\frac{5}{2}), x \in \mathbb{Z}$

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

Which of the following figures represents the solution set

52.

$\{6, 7, 8, 9, 10, 11, \dots\}$

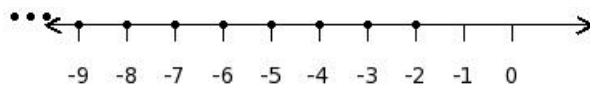


(i) II (ii) I (iii) III (iv) IV

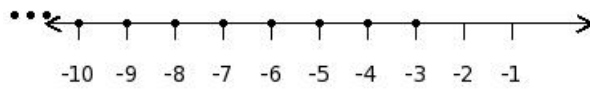
Which of the following figures represents the solution set

53.

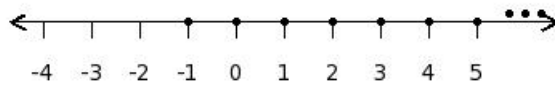
$\{-3, -4, -5, -6, -7, -8, \dots\}$



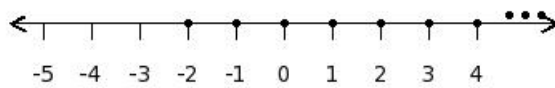
(I)



(II)



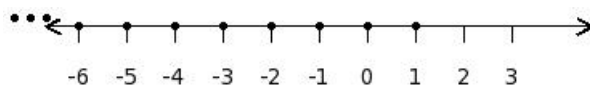
(III)



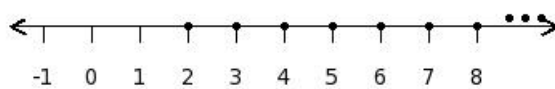
(IV)

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

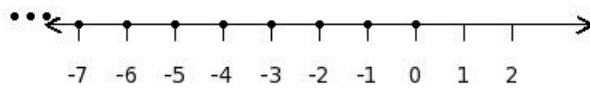
54. Which of the following figures represents the solution set $\{1, 2, 3, 4, 5, 6, \dots\}$



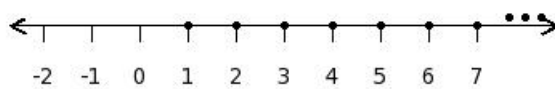
(I)



(II)



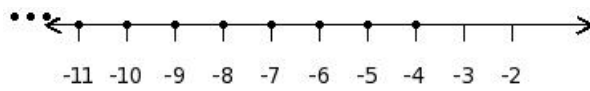
(III)



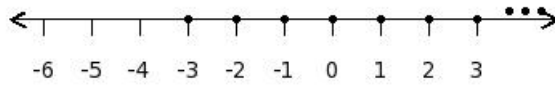
(IV)

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

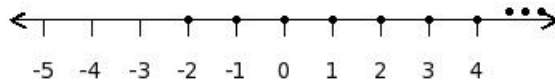
55. Which of the following figures represents the solution set $\{-3, -2, -1, 0, 1, 2, \dots\}$



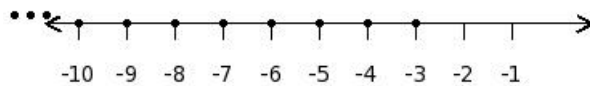
(I)



(II)



(III)



(IV)

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

56. Which of the following statements are true?

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

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

Which of the following inequations is not the same as

57. $(-8x + 3) < (-4x - 3), x \in \mathbb{Z}$

- (i) $(40x - 15) > (20x + 15), x \in \mathbb{Z}$
- (ii) $(-40x + 15) < (-20x - 15), x \in \mathbb{Z}$
- (iii) $(72x - 27) > (36x + 27), x \in \mathbb{Z}$
- (iv) $(-24x + 9) < (-12x - 9), x \in \mathbb{Z}$
- (v) $(-24x + 9) < (-20x - 15), x \in \mathbb{Z}$

Which of the following inequations is not the same as

58. $(-7x - 3) \leq (3x + 8), x \in \mathbb{Z}$

(i) $(-28x - 12) \leq (12x + 32), x \in \mathbb{Z}$

(ii) $(56x + 24) \geq (-24x - 64), x \in \mathbb{Z}$

(iii) $(-14x - 6) \leq (6x + 16), x \in \mathbb{Z}$

(iv) $(-63x - 27) \leq (12x + 32), x \in \mathbb{Z}$

(v) $(-63x - 27) \leq (27x + 72), x \in \mathbb{Z}$

Which of the following inequations is not the same as

59. $(2x - 7) > (8x + 8), x \in \mathbb{Z}$

(i) $(16x - 56) > (64x + 64), x \in \mathbb{Z}$

(ii) $(4x - 14) > (16x + 16), x \in \mathbb{Z}$

(iii) $(12x - 42) > (16x + 16), x \in \mathbb{Z}$

(iv) $(-16x + 56) < (-64x - 64), x \in \mathbb{Z}$

(v) $(12x - 42) > (48x + 48), x \in \mathbb{Z}$

Which of the following inequations is not the same as

60. $(7x + 6) \geq (2x - 3), x \in \mathbb{Z}$

(i) $(7x + 6) \geq (2x - 3), x \in \mathbb{Z}$

(ii) $(-35x - 30) \leq (-10x + 15), x \in \mathbb{Z}$

(iii) $(-56x - 48) \leq (-16x + 24), x \in \mathbb{Z}$

(iv) $(-14x - 12) \leq (-4x + 6), x \in \mathbb{Z}$

(v) $(7x + 6) \geq (-16x + 24), x \in \mathbb{Z}$

Find the solution set of given inequality

61. $(-x - 3) < 0, x \in \mathbb{Z}$

(i) $\{-2, -1, 0, 1, \dots\}$

(ii) $\{-3, -4, -5, -6, \dots\}$

(iii) $\{-4, -5, -6, -7, \dots\}$

(iv) $\{-3, -2, -1, 0, \dots\}$

Find the solution set of given inequality

62. $(6x + 12) > 0, x \in \mathbb{Z}$

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

Find the solution set of given inequality

63. $(-9x - 45) \leq 0, x \in \mathbb{Z}$

- (i) $\{-5, -6, -7, -8, \dots\}$
 - (ii) $\{-5, -4, -3, -2, \dots\}$
 - (iii) $\{-6, -7, -8, -9, \dots\}$
 - (iv) $\{-4, -3, -2, -1, \dots\}$
-

Find the solution set of given inequality

64. $(-2x + 2) \geq 0, x \in \mathbb{Z}$

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

65. Find the solution set of $4 < 2x < 12, x \in \mathbb{Z}$

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

66. Find the solution set of $2 > (5x - 7) > (-23), x \in \mathbb{Z}$

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

(v) $\{0, -1, -2, -3, -4\}$

67. Find the solution set of $1 \leq (x - 4) \leq 10, x \in \mathbb{Z}$

(i) $\{7, 8, 9, 10, 11, 12, 13, 14, 15, 16\}$

(ii) $\{3, 4, 5, 6, 7, 8, 9, 10, 11, 12\}$

(iii) $\{4, 5, 6, 7, 8, 9, 10, 11, 12, 13\}$

(iv) $\{6, 7, 8, 9, 10, 11, 12, 13, 14, 15\}$

(v) $\{5, 6, 7, 8, 9, 10, 11, 12, 13, 14\}$

68. Find the solution set of $(-17) \geq (-9x + 2) \geq (-28), x \in \mathbb{Z}$

(i) $\{3\}$

(ii) $\{5\}$

(iii) $\{2\}$

(iv) $\{1\}$

(v) $\{4\}$

69. Find the solution set of $15 < (9x - 3) \leq 26, x \in \mathbb{Z}$

(i) $\{2\}$

(ii) $\{1\}$

(iii) $\{5\}$

(iv) $\{3\}$

(v) $\{4\}$

70. Find the solution set of $6 > (2x + 8) \geq (-6), x \in \mathbb{Z}$

(i) $\{-2, -3, -4, -5, -6, -7\}$

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

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

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

(v) $\{-4, -5, -6, -7, -8, -9\}$

71. Find the solution set of $(-5) \leq (-x + 4) < 6, x \in \mathbb{Z}$

(i) $\{10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0\}$

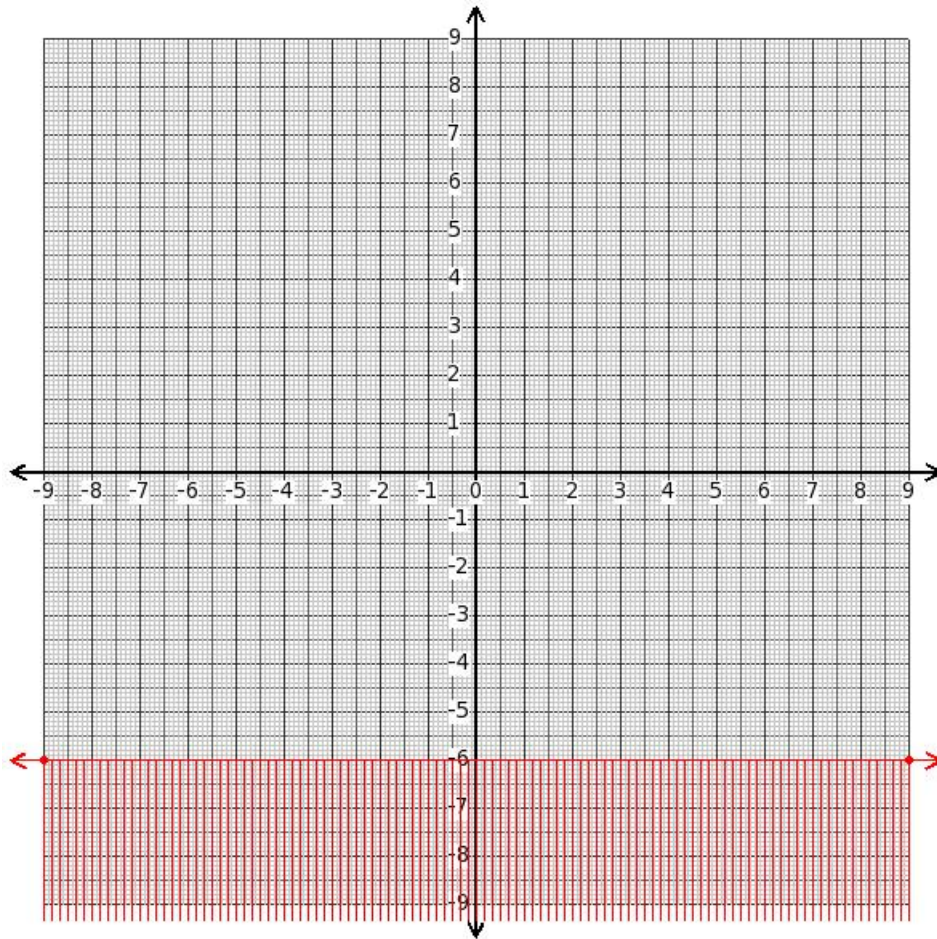
(ii) $\{9, 8, 7, 6, 5, 4, 3, 2, 1, 0, -1\}$

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

72. Find the solution set of $11 \geq (5x - 9) > (-14), x \in \mathbb{Z}$

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

73. Which of the following inequations represent the shaded region?

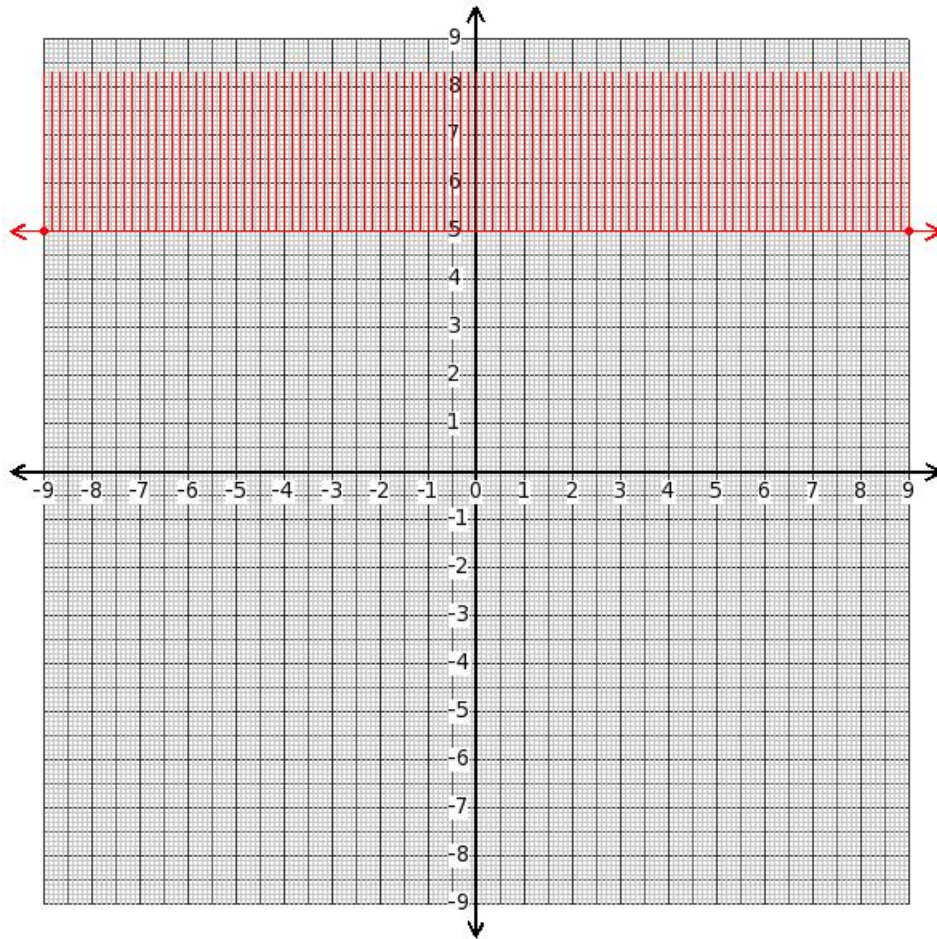


- (i) $(y + 3) < 0$
(ii) $(y + 7) < 0$
(iii) $(y - 3) < 0$

(iv) $(y + 6) < 0$

(v) $(y - 8) < 0$

74. Which of the following inequations represent the shaded region?



(i) $(y - 5) > 0$

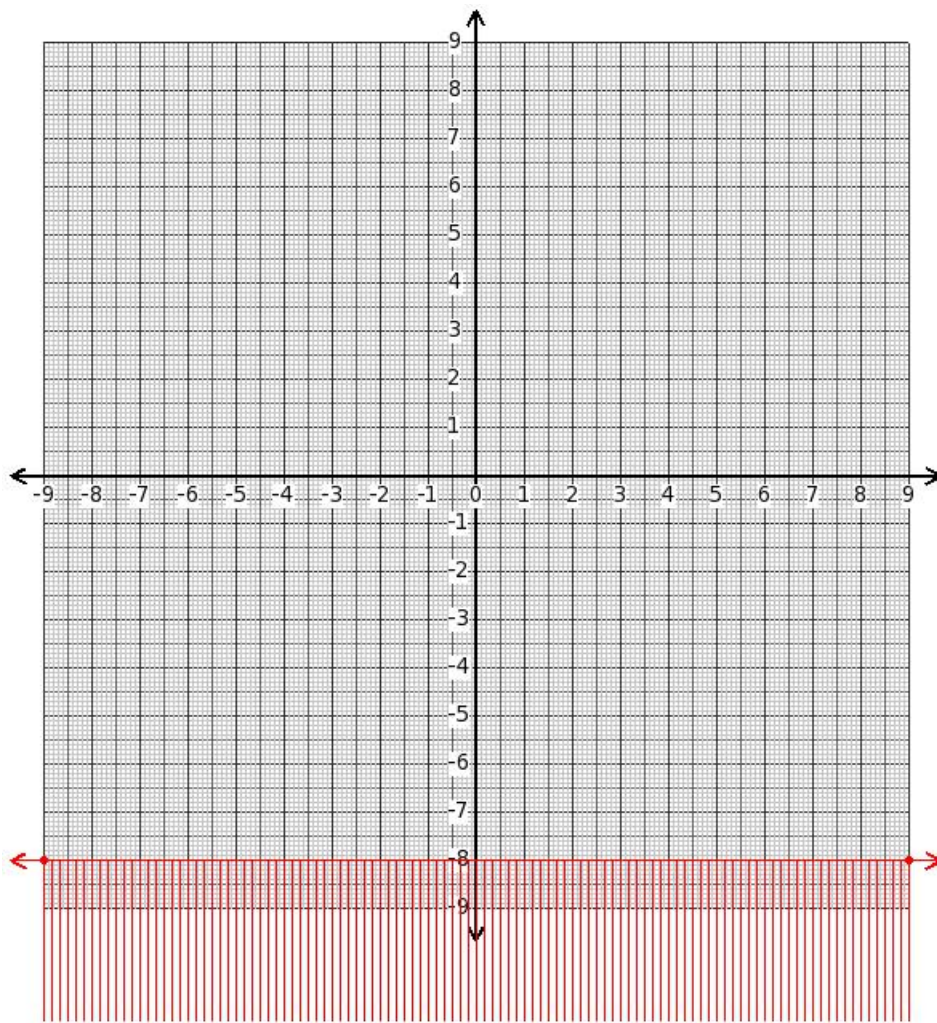
(ii) $(y + 5) > 0$

(iii) $(y + 7) > 0$

(iv) $(y - 3) > 0$

(v) $y > 0$

75. Which of the following inequations represent the shaded region?



(i) $(y - 1) \leq 0$

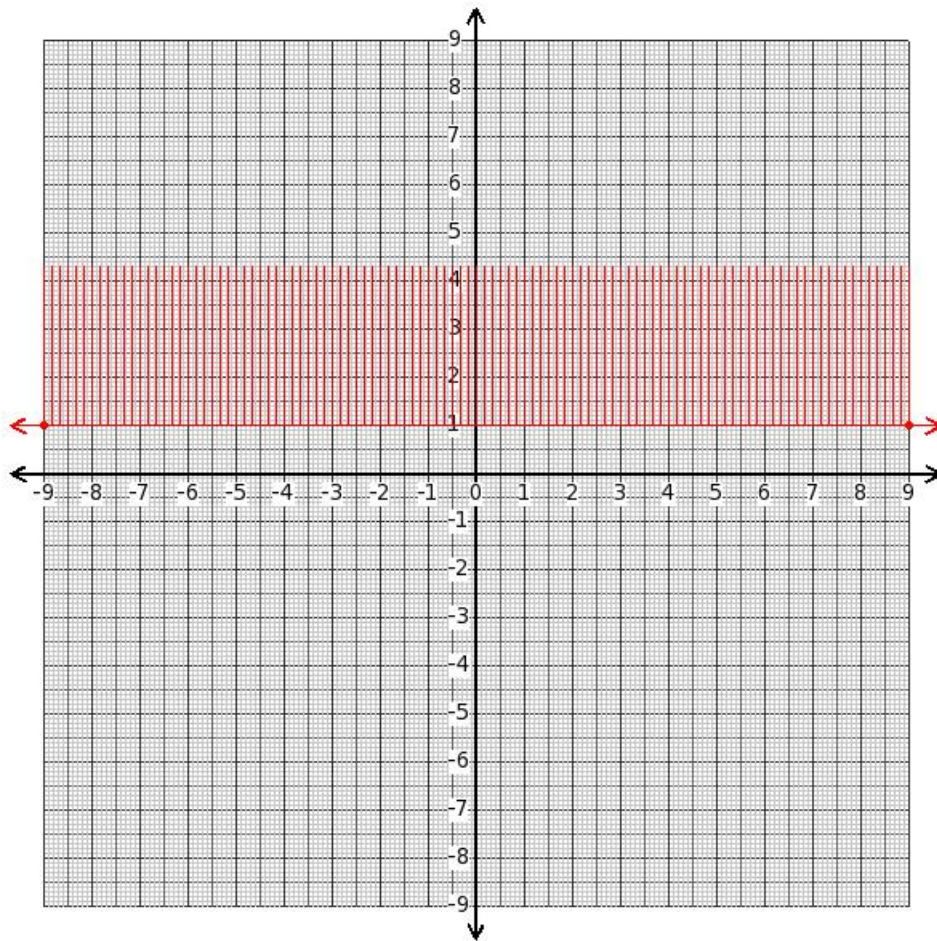
(ii) $(y + 4) \leq 0$

(iii) $(y - 8) \leq 0$

(iv) $(y + 8) \leq 0$

(v) $(y + 7) \leq 0$

76. Which of the following inequations represent the shaded region?



(i) $(y - 3) \geq 0$

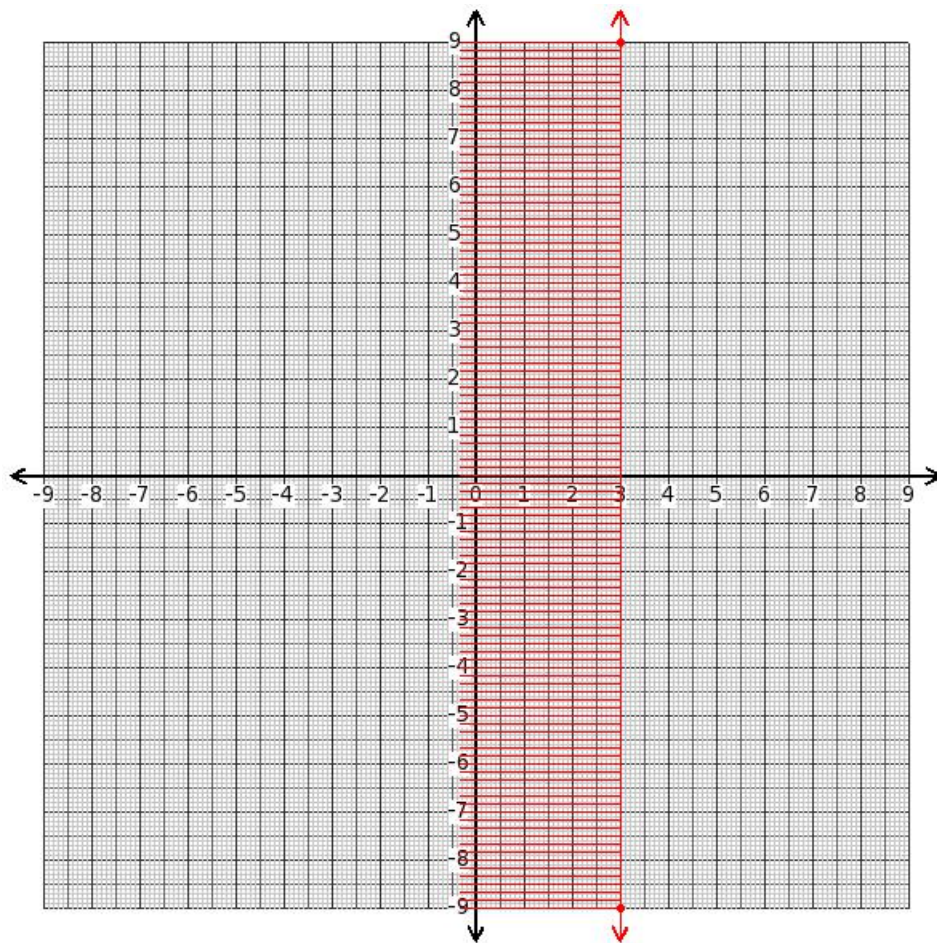
(ii) $(y + 2) \geq 0$

(iii) $(y - 1) \geq 0$

(iv) $y \geq 0$

(v) $(y - 4) \geq 0$

77. Which of the following inequations represent the shaded region?



(i) $(x - 9) < 0$

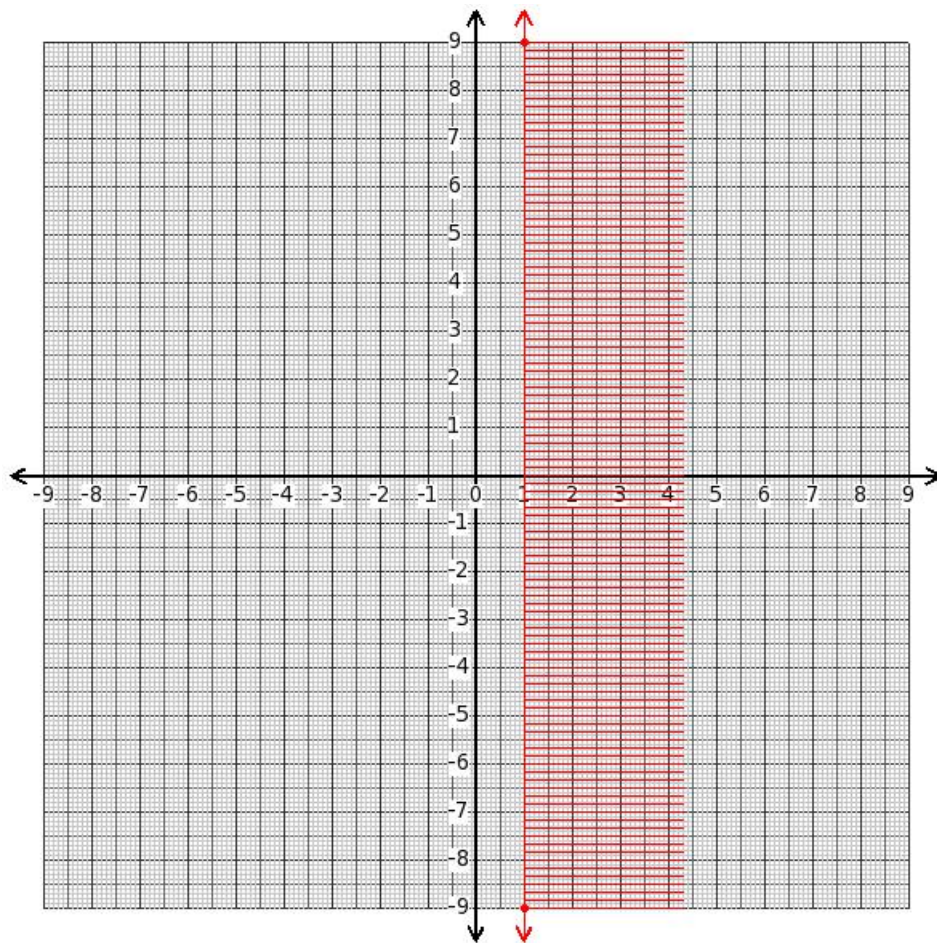
(ii) $(x + 2) < 0$

(iii) $x < 0$

(iv) $(x - 7) < 0$

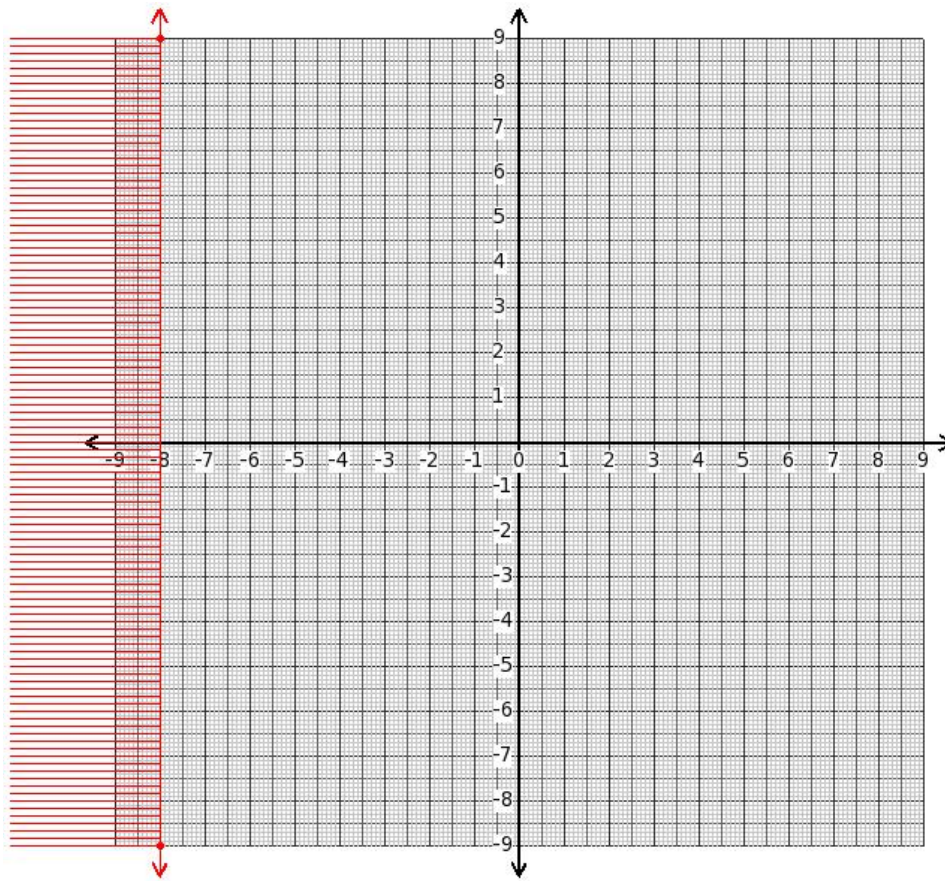
(v) $(x - 3) < 0$

78. Which of the following inequations represent the shaded region?



- (i) $x > 0$
- (ii) $(x + 9) > 0$
- (iii) $(x - 3) > 0$
- (iv) $(x - 1) > 0$

79. Which of the following inequations represent the shaded region?



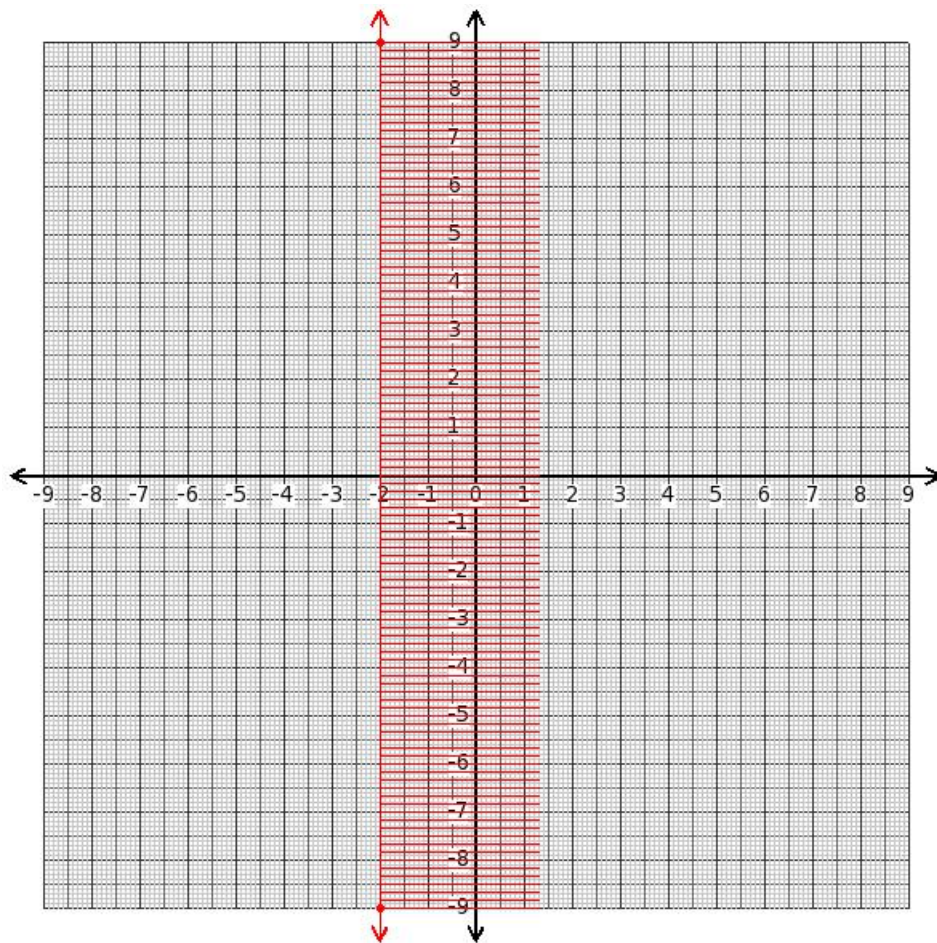
(i) $(x - 8) \leq 0$

(ii) $x \leq 0$

(iii) $(x - 1) \leq 0$

(iv) $(x + 8) \leq 0$

80. Which of the following inequations represent the shaded region?



(i) $(x + 2) \geq 0$

(ii) $(x - 7) \geq 0$

(iii) $(x + 1) \geq 0$

(iv) $(x - 6) \geq 0$

(v) $(x - 8) \geq 0$

Assignment Key

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

- 40) (ii)
- 41) (i)
- 42) (iv)
- 43) (ii)
- 44) (v)
- 45) (i)
- 46) (iii)
- 47) (i)
- 48) (ii)
- 49) (v)
- 50) (iv)
- 51) (i)
- 52) (i)
- 53) (ii)
- 54) (iv)
- 55) (iv)
- 56) (ii)
- 57) (v)
- 58) (iv)
- 59) (iii)
- 60) (v)
- 61) (i)
- 62) (i)
- 63) (ii)
- 64) (iv)
- 65) (iv)
- 66) (i)
- 67) (v)
- 68) (i)
- 69) (iv)
- 70) (i)
- 71) (ii)
- 72) (v)
- 73) (iv)
- 74) (i)
- 75) (iv)
- 76) (iii)
- 77) (v)
- 78) (iv)
- 79) (iv)
- 80) (i)