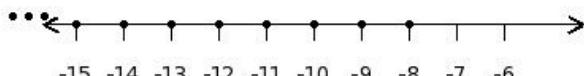


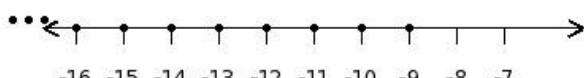


1. Solve the inequation  $(3x+27) < 0, x \in \mathbb{Z}$   
(i)  $\{-8, -7, -6, -5, -4, \dots\}$  (ii)  $\{-9, -8, -7, -6, -5, \dots\}$  (iii)  $\{-10, -11, -12, -13, -14, \dots\}$  (iv)  $\{-9, -10, -11, -12, -13, \dots\}$
2. Solve the inequation  $(-6x+6) > 0, x \in \mathbb{Z}$   
(i)  $\{2, 3, 4, 5, 6, \dots\}$  (ii)  $\{0, -1, -2, -3, -4, \dots\}$  (iii)  $\{1, 2, 3, 4, 5, \dots\}$  (iv)  $\{1, 0, -1, -2, -3, \dots\}$
3. Solve the inequation  $(3x-12) \leq 0, x \in \mathbb{Z}$   
(i)  $\{3, 2, 1, 0, -1, \dots\}$  (ii)  $\{5, 6, 7, 8, 9, \dots\}$  (iii)  $\{4, 3, 2, 1, 0, \dots\}$  (iv)  $\{4, 5, 6, 7, 8, \dots\}$
4. Solve the inequation  $(9x-54) \geq 0, x \in \mathbb{Z}$   
(i)  $\{6, 5, 4, 3, 2, \dots\}$  (ii)  $\{7, 8, 9, 10, 11, \dots\}$  (iii)  $\{5, 4, 3, 2, 1, \dots\}$  (iv)  $\{6, 7, 8, 9, 10, \dots\}$
5. Find the solution set for the given inequation  
 $(8x-40) < 0$ , where the replacement set is  $\{7, 6, 5, 4, 3, 2, 1\}$   
(i)  $\{4, 3, 2, 1\}$  (ii)  $\{5, 6, 7, 8, 9\}$  (iii)  $\{6, 7, 8, 9, 10\}$  (iv)  $\{4, 3, 2, 1, 0\}$  (v)  $\{5, 4, 3, 2, 1\}$
6. Find the solution set for the given inequation  
 $(4x+36) > 0$ , where the replacement set is  $\{-11, -10, -9, -8, -7, -6, -5\}$   
(i)  $\{-10, -11, -12, -13, -14\}$  (ii)  $\{-9, -10, -11, -12, -13\}$  (iii)  $\{-8, -7, -6, -5\}$  (iv)  $\{-9, -8, -7, -6, -5\}$  (v)  $\{-8, -7, -6, -5, -4\}$
7. Find the solution set for the given inequation  
 $(-5x-25) \leq 0$ , where the replacement set is  $\{-8, -7, -6, -5, -4, -3, -2\}$   
(i)  $\{-5, -4, -3, -2, -1\}$  (ii)  $\{-5, -4, -3, -2\}$  (iii)  $\{-5, -6, -7, -8, -9\}$  (iv)  $\{-4, -3, -2, -1, 0\}$  (v)  $\{-6, -7, -8, -9, -10\}$
8. Find the solution set for the given inequation  
 $(-x+3) \geq 0$ , 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)  $\{3, 2, 1, 0\}$  (iv)  $\{2, 1, 0, -1, -2\}$  (v)  $\{3, 2, 1, 0, -1\}$

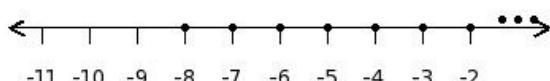
9. Identify the solution for the inequality  $(-9x - 72) < 0, x \in \mathbb{Z}$



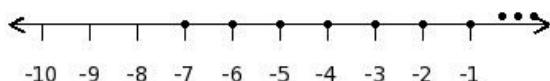
(I)



(II)



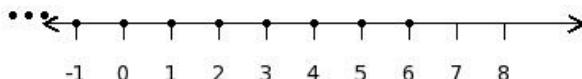
(III)



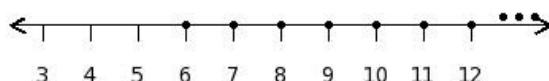
(IV)

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

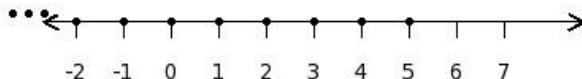
10. Identify the solution for the inequality  $(4x - 24) > 0, x \in \mathbb{Z}$



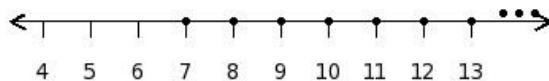
(I)



(II)



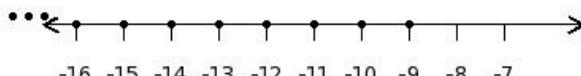
(III)



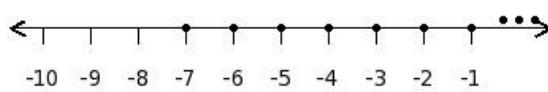
(IV)

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

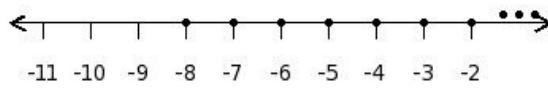
11. Identify the solution for the inequality  $(-6x - 48) \leq 0, x \in \mathbb{Z}$



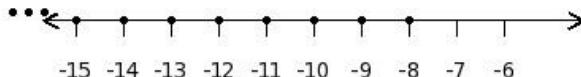
(I)



(II)



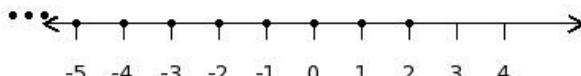
(III)



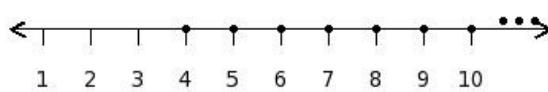
(IV)

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

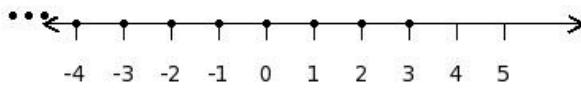
12. Identify the solution for the inequality  $(-8x + 24) \geq 0, x \in \mathbb{Z}$



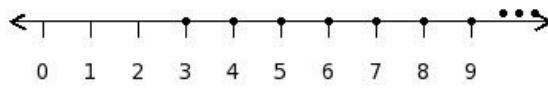
(I)



(II)



(III)



(IV)

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

13. Which of the following is an inequation?

- (i) 6 (ii)  $(4x+2)$  (iii)  $(5x+8)=0$  (iv)  $(-5x-3) \geq 0, x \in \mathbb{Z}$

14. Which of the following is not an inequation?

- (i)  $(-8x) > 3, x \in \mathbb{Z}$  (ii)  $(9x+6) \leq (-2), x \in \mathbb{Z}$  (iii)  $(-6x+8) = (-5)$  (iv)  $(-7x-7) < (-7), x \in \mathbb{Z}$   
(v)  $(2x-1) \geq (-8), x \in \mathbb{Z}$

15. Which of the following is not an inequation?

- (i)  $(3x+1) > (6x+2), x \in \mathbb{Z}$  (ii)  $(3x+2) \geq (-x+7), x \in \mathbb{Z}$  (iii)  $(x+8) \leq (-x+4), x \in \mathbb{Z}$  (iv)  $(9x+1) = (x-8)$   
(v)  $(2x+7) < (6x-8), x \in \mathbb{Z}$

Which of the following inequations is the same as

16.  $(-7x) < (-3x+5), x \in \mathbb{Z}$

(i)  $(x+5) > (-3x+5), x \in \mathbb{Z}$  (ii)  $(-7x) < (5x+10), x \in \mathbb{Z}$  (iii)  $(-7x) > (5x+10), x \in \mathbb{Z}$

(iv)  $(x+5) < (-3x+5), x \in \mathbb{Z}$  (v)  $(x+5) < (5x+10), x \in \mathbb{Z}$

Which of the following inequations is the same as

17.  $(6x+4) < (-4x-6), x \in \mathbb{Z}$

(i)  $3x < (-7x-10), x \in \mathbb{Z}$  (ii)  $3x > (-4x-6), x \in \mathbb{Z}$  (iii)  $3x < (-4x-6), x \in \mathbb{Z}$  (iv)  $(6x+4) > (-7x-10), x \in \mathbb{Z}$

(v)  $(6x+4) < (-7x-10), x \in \mathbb{Z}$

Which of the following inequations is the same as

18.  $(8x-1) \leq (3x-4), x \in \mathbb{Z}$

(i)  $(x-10) > (3x-4), x \in \mathbb{Z}$  (ii)  $(8x-1) < (-4x-13), x \in \mathbb{Z}$  (iii)  $(x-10) < (3x-4), x \in \mathbb{Z}$

(iv)  $(8x-1) > (-4x-13), x \in \mathbb{Z}$  (v)  $(x-10) \leq (-4x-13), x \in \mathbb{Z}$

Which of the following inequations is the same as

19.  $(-7x+3) \leq (5x+1), x \in \mathbb{Z}$

(i)  $(-7x+3) < (7x+5), x \in \mathbb{Z}$  (ii)  $(-5x+7) < (5x+1), x \in \mathbb{Z}$  (iii)  $(-7x+3) > (7x+5), x \in \mathbb{Z}$

(iv)  $(-5x+7) \leq (7x+5), x \in \mathbb{Z}$  (v)  $(-5x+7) > (5x+1), x \in \mathbb{Z}$

Which of the following inequations is the same as

20.  $(8x-9) > (7x-1), x \in \mathbb{Z}$

(i)  $(11x-13) > (10x-5), x \in \mathbb{Z}$  (ii)  $(8x-9) > (10x-5), x \in \mathbb{Z}$  (iii)  $(11x-13) < (7x-1), x \in \mathbb{Z}$

(iv)  $(8x-9) < (10x-5), x \in \mathbb{Z}$  (v)  $(11x-13) > (7x-1), x \in \mathbb{Z}$

Which of the following inequations is the same as

21.  $(-4x+5) > (3x+3), x \in \mathbb{Z}$

(i)  $(-5x+10) < (3x+3), x \in \mathbb{Z}$  (ii)  $(-4x+5) < (2x+8), x \in \mathbb{Z}$  (iii)  $(-5x+10) > (2x+8), x \in \mathbb{Z}$

(iv)  $(-5x+10) > (3x+3), x \in \mathbb{Z}$  (v)  $(-4x+5) > (2x+8), x \in \mathbb{Z}$

Which of the following inequations is the same as

22.  $(-7x-4) \geq (-2x-6), x \in \mathbb{Z}$

(i)  $(-7x-4) > (3x+2), x \in \mathbb{Z}$  (ii)  $(-7x-4) < (3x+2), x \in \mathbb{Z}$  (iii)  $(-2x+4) > (-2x-6), x \in \mathbb{Z}$

(iv)  $(-2x+4) \geq (3x+2), x \in \mathbb{Z}$  (v)  $(-2x+4) < (-2x-6), x \in \mathbb{Z}$

Which of the following inequations is the same as

23.  $(-8x-9) \geq (x-6), x \in \mathbb{Z}$

(i)  $(-8x-9) > (8x-5), x \in \mathbb{Z}$  (ii)  $(-x-8) \geq (8x-5), x \in \mathbb{Z}$  (iii)  $(-x-8) > (x-6), x \in \mathbb{Z}$

(iv)  $(-8x-9) < (8x-5), x \in \mathbb{Z}$  (v)  $(-x-8) < (x-6), x \in \mathbb{Z}$

Which of the following inequations is the same as

24.  $(6x-9) < (4x-9), x \in \mathbb{Z}$

(i)  $(-24x+36) > (-16x+36), x \in \mathbb{Z}$  (ii)  $(-24x+36) < (4x-9), x \in \mathbb{Z}$  (iii)  $(6x-9) > (-16x+36), x \in \mathbb{Z}$

(iv)  $(-24x+36) > (4x-9), x \in \mathbb{Z}$  (v)  $(6x-9) < (-16x+36), x \in \mathbb{Z}$

Which of the following inequations is the same as

25.  $(2x-9) \leq (-6x-9), x \in \mathbb{Z}$

(i)  $(-8x+36) > (-6x-9), x \in \mathbb{Z}$  (ii)  $(2x-9) < (24x+36), x \in \mathbb{Z}$  (iii)  $(2x-9) > (24x+36), x \in \mathbb{Z}$

(iv)  $(-8x+36) < (-6x-9), x \in \mathbb{Z}$  (v)  $(-8x+36) \geq (24x+36), x \in \mathbb{Z}$

Which of the following inequations is the same as

26.  $(-6x-5) > (8x+3), x \in \mathbb{Z}$

(i)  $(-6x-5) < (-32x-12), x \in \mathbb{Z}$  (ii)  $(24x+20) < (8x+3), x \in \mathbb{Z}$  (iii)  $(-6x-5) > (-32x-12), x \in \mathbb{Z}$

(iv)  $(24x+20) < (-32x-12), x \in \mathbb{Z}$  (v)  $(24x+20) > (8x+3), x \in \mathbb{Z}$

Which of the following inequations is the same as

27.  $(7x+1) \geq (-x-8), x \in \mathbb{Z}$

(i)  $(-21x-3) > (-x-8), x \in \mathbb{Z}$  (ii)  $(7x+1) > (3x+24), x \in \mathbb{Z}$  (iii)  $(-21x-3) < (-x-8), x \in \mathbb{Z}$

(iv)  $(7x+1) < (3x+24), x \in \mathbb{Z}$  (v)  $(-21x-3) \leq (3x+24), x \in \mathbb{Z}$

Which of the following inequations is not the same as

28.  $(3x+8) < (-8x+4), x \in \mathbb{Z}$

(i)  $(-6x+10) < (-17x+6), x \in \mathbb{Z}$  (ii)  $(4x+2) < (-14x+2), x \in \mathbb{Z}$  (iii)  $(-3x+6) < (-14x+2), x \in \mathbb{Z}$

(iv)  $(8x+4) < (-3x), x \in \mathbb{Z}$  (v)  $(4x+2) < (-7x-2), x \in \mathbb{Z}$

Which of the following inequations is not the same as

29.  $(-7x-8) < (x-9), x \in \mathbb{Z}$

(i)  $(-9x) < (-x-1), x \in \mathbb{Z}$  (ii)  $(-15x-7) < (-7x-8), x \in \mathbb{Z}$  (iii)  $(-13x+1) < (-5x), x \in \mathbb{Z}$

(iv)  $(-16x-14) < (-8x-15), x \in \mathbb{Z}$  (v)  $(-13x+1) < (-7x-8), x \in \mathbb{Z}$

Which of the following inequations is not the same as

30.  $(-3x-2) \leq (8x+1), x \in \mathbb{Z}$

(i)  $(x+6) \leq (7x+6), x \in \mathbb{Z}$  (ii)  $(6x+3) \leq (17x+6), x \in \mathbb{Z}$  (iii)  $(x+6) \leq (12x+9), x \in \mathbb{Z}$

(iv)  $(-4x+3) \leq (7x+6), x \in \mathbb{Z}$  (v)  $(-6x-4) \leq (5x-1), x \in \mathbb{Z}$

Which of the following inequations is not the same as

31.  $(-3x-9) \leq (-5x-5), x \in \mathbb{Z}$

(i)  $(2x-17) \leq (-13), x \in \mathbb{Z}$  (ii)  $(3x-4) \leq x, x \in \mathbb{Z}$  (iii)  $(4x-14) \leq (2x-10), x \in \mathbb{Z}$  (iv)  $(5x-7) \leq (3x-3), x \in \mathbb{Z}$

(v)  $(2x-17) \leq (3x-3), x \in \mathbb{Z}$

Which of the following inequations is not the same as

32.  $(-5x-9) > (9x+1), x \in \mathbb{Z}$

(i)  $(-9x-3) > (5x+7), x \in \mathbb{Z}$  (ii)  $(-9x-12) > (5x-2), x \in \mathbb{Z}$  (iii)  $(-11) > (14x-1), x \in \mathbb{Z}$

(iv)  $(-11x-3) > (3x+7), x \in \mathbb{Z}$  (v)  $(-9x-12) > (3x+7), x \in \mathbb{Z}$

Which of the following inequations is not the same as

33.  $(-7x+7) > (-9x-1), x \in \mathbb{Z}$

(i)  $(-5x+12) > (-7x+4), x \in \mathbb{Z}$  (ii)  $(-14x+12) > (-16x+4), x \in \mathbb{Z}$  (iii)  $(-11x+8) > (-13x), x \in \mathbb{Z}$

(iv)  $(-14x+12) > (-13x), x \in \mathbb{Z}$  (v)  $(-14x+2) > (-16x-6), x \in \mathbb{Z}$

Which of the following inequations is not the same as

34.  $(-6x+4) \geq (6x+9), x \in \mathbb{Z}$

- (i)  $(2x+3) \geq 9x, x \in \mathbb{Z}$  (ii)  $(-3x-5) \geq 9x, x \in \mathbb{Z}$  (iii)  $(-15x+10) \geq (-3x+15), x \in \mathbb{Z}$  (iv)  $9 \geq (12x+14), x \in \mathbb{Z}$   
(v)  $(2x+3) \geq (14x+8), x \in \mathbb{Z}$

Which of the following inequations is not the same as

35.  $(-2x-5) \geq (-8x+3), x \in \mathbb{Z}$

- (i)  $(4x-1) \geq (-2x+7), x \in \mathbb{Z}$  (ii)  $(7x-9) \geq (x-1), x \in \mathbb{Z}$  (iii)  $(4x-1) \geq (-x+1), x \in \mathbb{Z}$   
(iv)  $(2x+4) \geq (-4x+12), x \in \mathbb{Z}$  (v)  $(5x-7) \geq (-x+1), x \in \mathbb{Z}$

36. The solution set of the inequality  $(-x+3) < (-8x+2), x \in \mathbb{Z}$  is

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

37. The solution set of the inequality  $3x > (7x-3), x \in \mathbb{Z}$  is

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

38. The solution set of the inequality  $(x+2) \leq (9x+5), x \in \mathbb{Z}$  is

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

39. The solution set of the inequality  $3x \geq (-6x-4), x \in \mathbb{Z}$  is

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

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

- (i)  $\{-7, -6, -5, -4, -3, \dots\}$  (ii)  $\{-8, -9, -10, -11, -12, \dots\}$  (iii)  $\{1, 2, 3, 4, 5, \dots\}$  (iv)  $\{-3, -4, -5, -6, -7, \dots\}$

41. The solution set of the inequality  $(9x-2) > (-6), x \in \mathbb{Z}$  is

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

42. The solution set of the inequality  $(x-4) \leq (-6), x \in \mathbb{Z}$  is

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

43. The solution set of the inequality  $(8x+5) \geq (-7), x \in \mathbb{Z}$  is

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

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

- (i)  $x \geq (-1), x \in \mathbb{Z}$  (ii)  $x > (-\frac{11}{9}), x \in \mathbb{Z}$  (iii)  $x < (-\frac{11}{9}), x \in \mathbb{Z}$  (iv)  $x \leq (-1), x \in \mathbb{Z}$  (v)  $x < (-\frac{10}{9}), x \in \mathbb{Z}$

45. The simplified form of the inequality  $(-2x+7) > (-5), x \in \mathbb{Z}$  is

- (i)  $x \geq \frac{11}{2}, x \in \mathbb{Z}$  (ii)  $x > \frac{13}{2}, x \in \mathbb{Z}$  (iii)  $x \leq \frac{11}{2}, x \in \mathbb{Z}$  (iv)  $x < 6, x \in \mathbb{Z}$  (v)  $x < \frac{13}{2}, x \in \mathbb{Z}$

46. The simplified form of the inequality  $(-4x-6) \leq 3, x \in \mathbb{Z}$  is

- (i)  $x \leq (-\frac{5}{2}), x \in \mathbb{Z}$  (ii)  $x > (-2), x \in \mathbb{Z}$  (iii)  $x < (-2), x \in \mathbb{Z}$  (iv)  $x \geq (-\frac{5}{2}), x \in \mathbb{Z}$  (v)  $x \geq (-\frac{9}{4}), x \in \mathbb{Z}$

47. The simplified form of the inequality  $(-2x-2) \geq 6, x \in \mathbb{Z}$  is

- (i)  $x < (-\frac{7}{2}), x \in \mathbb{Z}$  (ii)  $x \geq (-\frac{9}{2}), x \in \mathbb{Z}$  (iii)  $x > (-\frac{7}{2}), x \in \mathbb{Z}$  (iv)  $x \leq (-\frac{9}{2}), x \in \mathbb{Z}$  (v)  $x \leq (-4), x \in \mathbb{Z}$

48. The simplified form of the inequality  $(-9x+8) < (-7x-2), x \in \mathbb{Z}$  is

- (i)  $x \leq \frac{9}{2}, x \in \mathbb{Z}$  (ii)  $x > 5, x \in \mathbb{Z}$  (iii)  $x \geq \frac{9}{2}, x \in \mathbb{Z}$  (iv)  $x > \frac{11}{2}, x \in \mathbb{Z}$  (v)  $x < \frac{11}{2}, x \in \mathbb{Z}$

49. The simplified form of the inequality  $(3x+7) > (2x+2), x \in \mathbb{Z}$  is

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

50. The simplified form of the inequality  $(-x+1) \leq (-8x+5), x \in \mathbb{Z}$  is

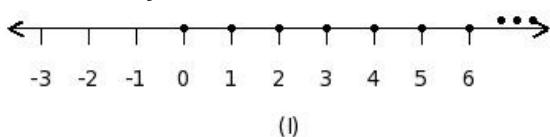
- (i)  $x > \frac{3}{7}, x \in \mathbb{Z}$  (ii)  $x \geq \frac{5}{7}, x \in \mathbb{Z}$  (iii)  $x \leq \frac{5}{7}, x \in \mathbb{Z}$  (iv)  $x < \frac{3}{7}, x \in \mathbb{Z}$  (v)  $x \leq \frac{4}{7}, x \in \mathbb{Z}$

51. The simplified form of the inequality  $(8x+9) \geq (-6x-4), x \in \mathbb{Z}$  is

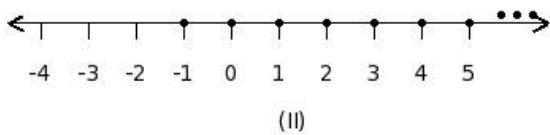
- (i)  $x < (-1), x \in \mathbb{Z}$  (ii)  $x \geq (-\frac{6}{7}), x \in \mathbb{Z}$  (iii)  $x \geq (-\frac{13}{14}), x \in \mathbb{Z}$  (iv)  $x \leq (-\frac{6}{7}), x \in \mathbb{Z}$  (v)  $x > (-1), x \in \mathbb{Z}$

52. Which of the following figures represents the solution set

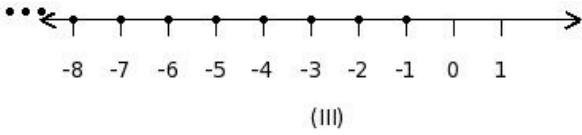
$$\{0, 1, 2, 3, 4, 5, \dots\}$$



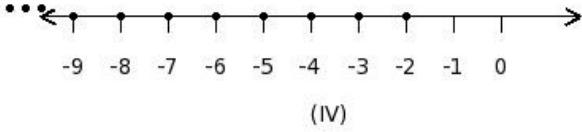
(I)



(II)



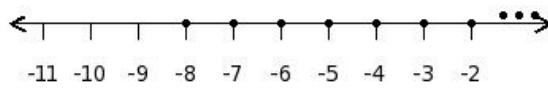
(III)



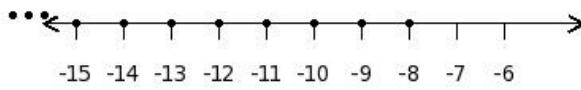
(IV)

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

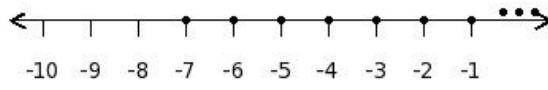
53. Which of the following figures represents the solution set  
 $\{-9, -10, -11, -12, -13, -14, \dots\}$



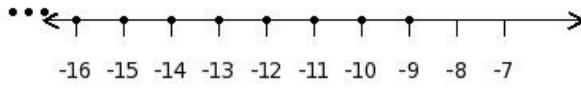
(I)



(II)



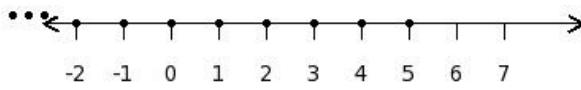
(III)



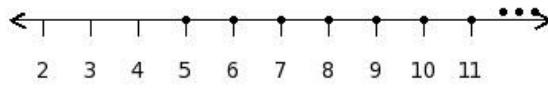
(IV)

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

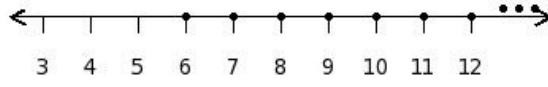
54. Which of the following figures represents the solution set  
 $\{5, 6, 7, 8, 9, 10, \dots\}$



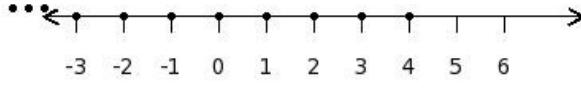
(I)



(II)



(III)

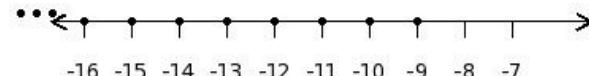


(IV)

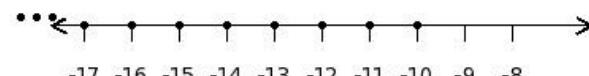
- (i) IV (ii) II (iii) I (iv) III

55. Which of the following figures represents the solution set

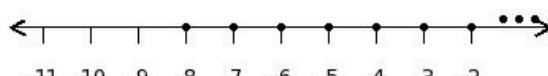
$$\{-9, -8, -7, -6, -5, -4, \dots\}$$



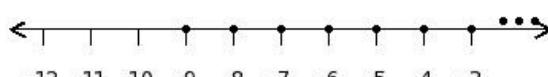
(I)



(II)



(III)



(IV)

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

56. Which of the following statements are true?

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

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

57. Which of the following inequations is not the same as

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

- (i)  $(10x+8) > (-14x+16), x \in \mathbb{Z}$  (ii)  $(10x+8) < (-21x+24), x \in \mathbb{Z}$  (iii)  $(-5x-4) < (7x-8), x \in \mathbb{Z}$   
(iv)  $(15x+12) > (-21x+24), x \in \mathbb{Z}$  (v)  $(-30x-24) < (42x-48), x \in \mathbb{Z}$

58. Which of the following inequations is not the same as

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

- (i)  $(-21x-15) \geq (3x-12), x \in \mathbb{Z}$  (ii)  $(-21x-15) \leq (-x+4), x \in \mathbb{Z}$  (iii)  $(7x+5) \leq (-x+4), x \in \mathbb{Z}$   
(iv)  $(-28x-20) \geq (4x-16), x \in \mathbb{Z}$  (v)  $(14x+10) \leq (-2x+8), x \in \mathbb{Z}$

59. Which of the following inequations is not the same as

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

- (i)  $36x > (10x-10), x \in \mathbb{Z}$  (ii)  $(-20x) < (10x-10), x \in \mathbb{Z}$  (iii)  $28x > (-14x+14), x \in \mathbb{Z}$   
(iv)  $32x > (-16x+16), x \in \mathbb{Z}$  (v)  $36x > (-18x+18), x \in \mathbb{Z}$

60. Which of the following inequations is not the same as

$$(-3x-9) \geq (-8x-1), x \in \mathbb{Z}$$

- (i)  $(12x+36) \geq (-40x-5), x \in \mathbb{Z}$  (ii)  $(18x+54) \leq (48x+6), x \in \mathbb{Z}$  (iii)  $(3x+9) \leq (8x+1), x \in \mathbb{Z}$   
(iv)  $(-15x-45) \geq (-40x-5), x \in \mathbb{Z}$  (v)  $(12x+36) \leq (32x+4), x \in \mathbb{Z}$

61. Find the solution set of given inequality

$$(-3x+9) < 0, x \in \mathbb{Z}$$

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

62. Find the solution set of given inequality

$$(4x+4) > 0, x \in \mathbb{Z}$$

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

63. Find the solution set of given inequality

$$(-9x+9) \leq 0, x \in \mathbb{Z}$$

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

64. Find the solution set of given inequality

$$(-9x-36) \geq 0, x \in \mathbb{Z}$$

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

65. Find the solution set of  $(-1) < (-5x-5) < 24, x \in \mathbb{Z}$

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

66. Find the solution set of  $2 > (-3x+3) > (-15), x \in \mathbb{Z}$

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

67. Find the solution set of  $7 \leq (x+9) \leq 16, x \in \mathbb{Z}$

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

68. Find the solution set of  $10 \geq (3x-4) \geq (-13), x \in \mathbb{Z}$

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

69. Find the solution set of  $(-8) < (-8x+2) \leq 20, x \in \mathbb{Z}$

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

70. Find the solution set of  $1 > (-3x-3) \geq (-16), x \in \mathbb{Z}$

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

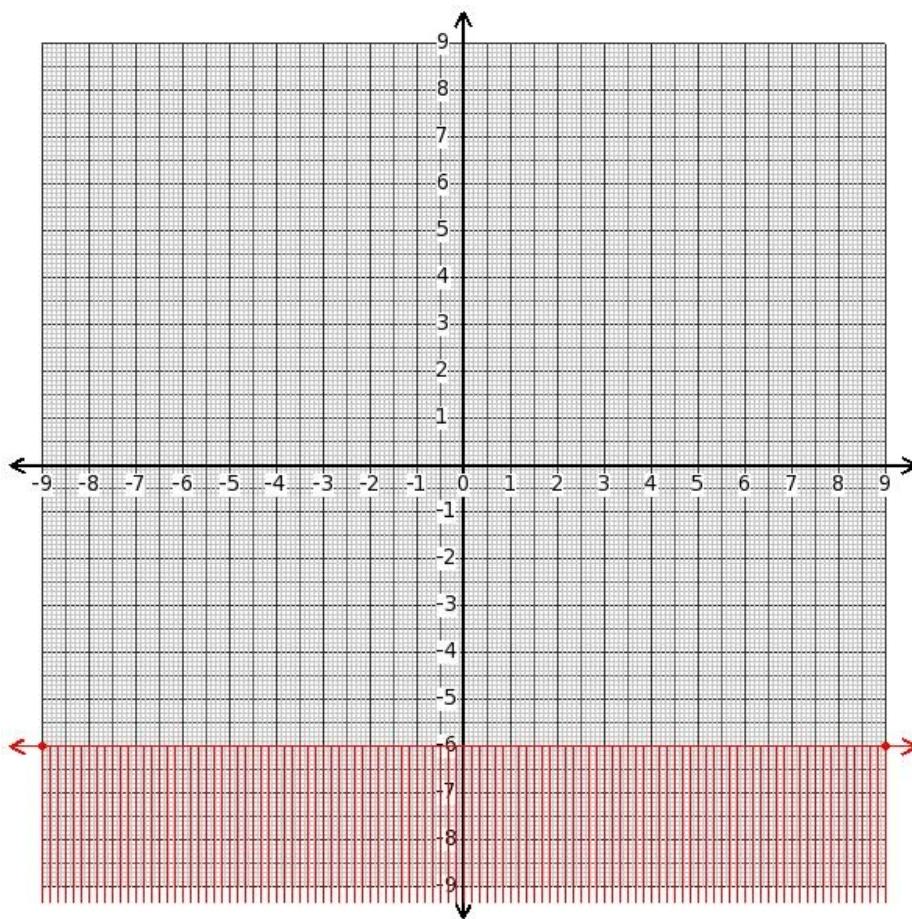
71. Find the solution set of  $4 \leq (x-2) < 13, x \in \mathbb{Z}$

- (i)  $\{7, 8, 9, 10, 11, 12, 13, 14, 15\}$  (ii)  $\{6, 7, 8, 9, 10, 11, 12, 13, 14\}$  (iii)  $\{8, 9, 10, 11, 12, 13, 14, 15, 16\}$   
(iv)  $\{4, 5, 6, 7, 8, 9, 10, 11, 12\}$  (v)  $\{5, 6, 7, 8, 9, 10, 11, 12, 13\}$

72. Find the solution set of  $15 \geq (9x+1) > (-14), x \in \mathbb{Z}$

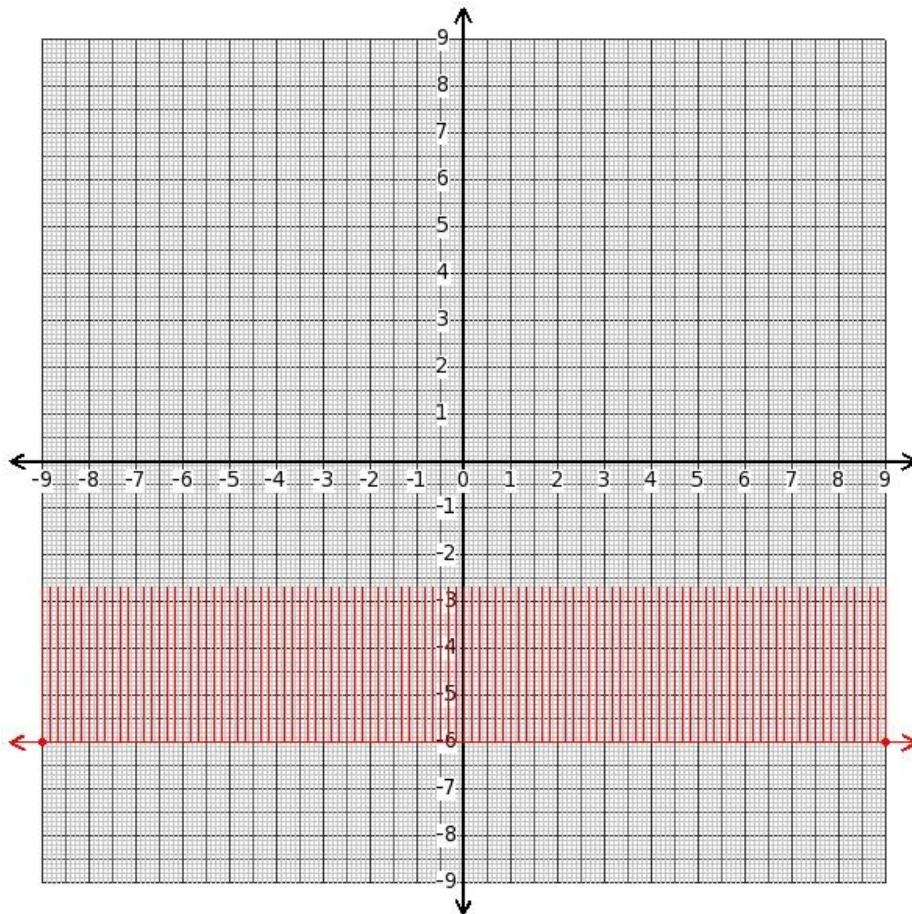
- (i)  $\{2, 1, 0\}$  (ii)  $\{-1, -2, -3\}$  (iii)  $\{1, 0, -1\}$  (iv)  $\{3, 2, 1\}$  (v)  $\{0, -1, -2\}$

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



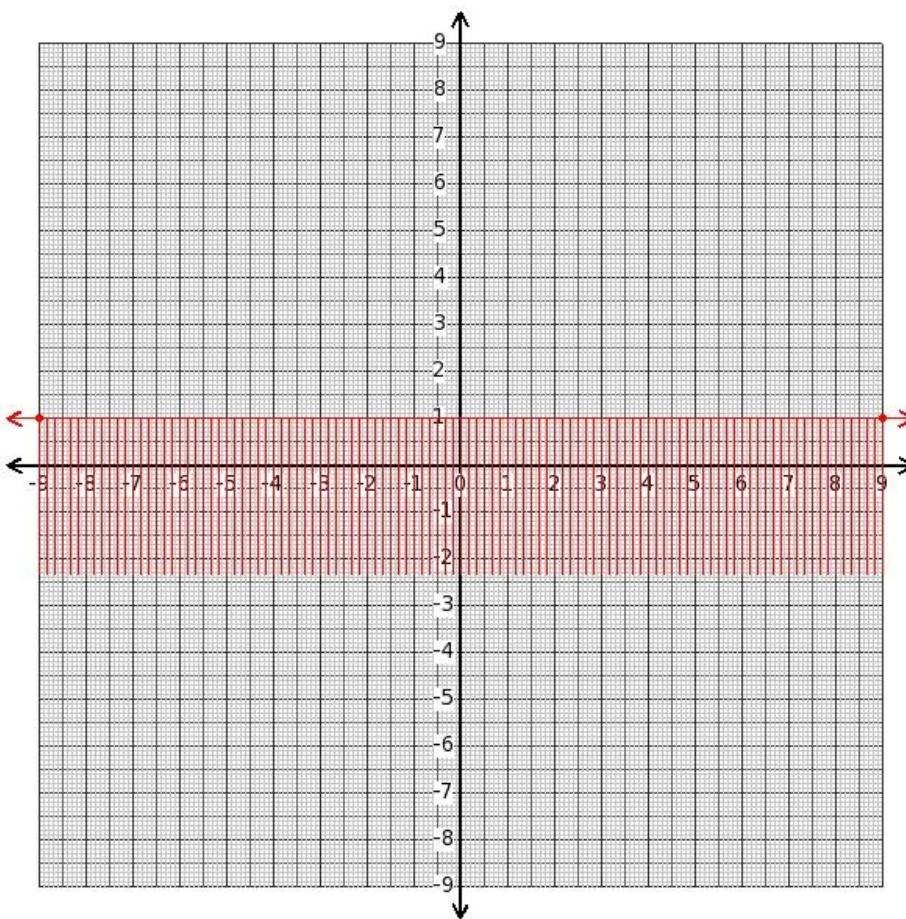
- (i)  $(y-2)<0$  (ii)  $(y-8)<0$  (iii)  $(y+6)<0$  (iv)  $(y+7)<0$  (v)  $(y+3)<0$

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



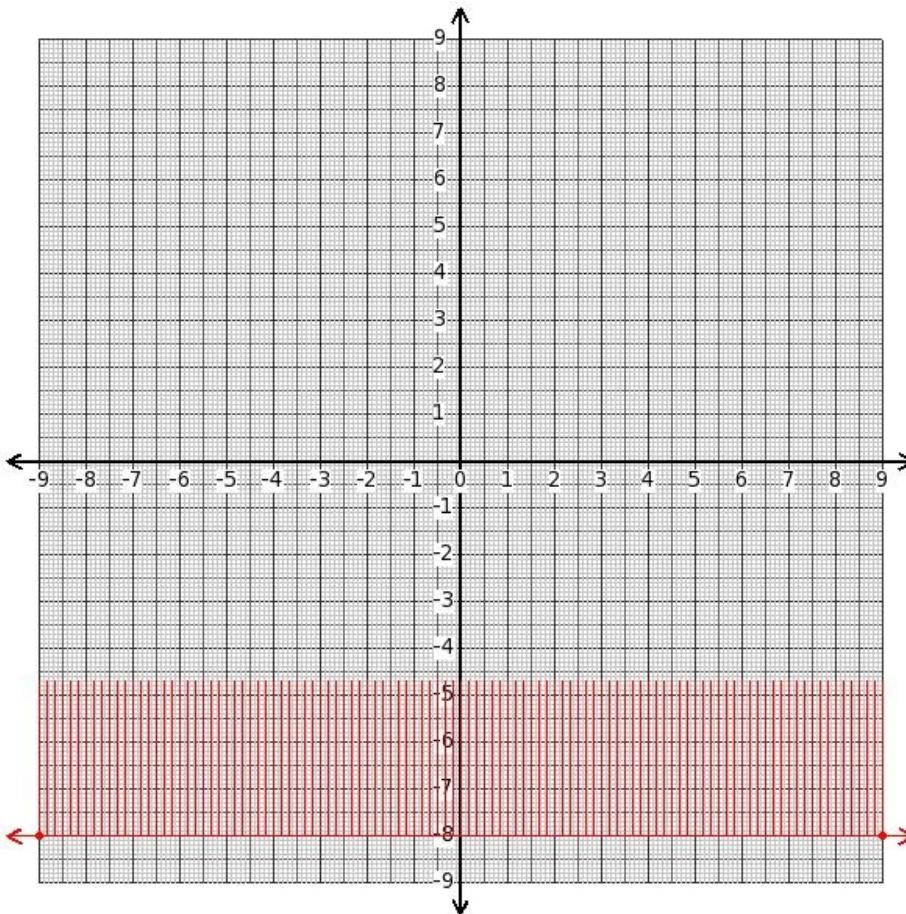
- (i)  $(y+6)>0$  (ii)  $(y+8)>0$  (iii)  $(y+1)>0$  (iv)  $(y-5)>0$  (v)  $y>0$

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



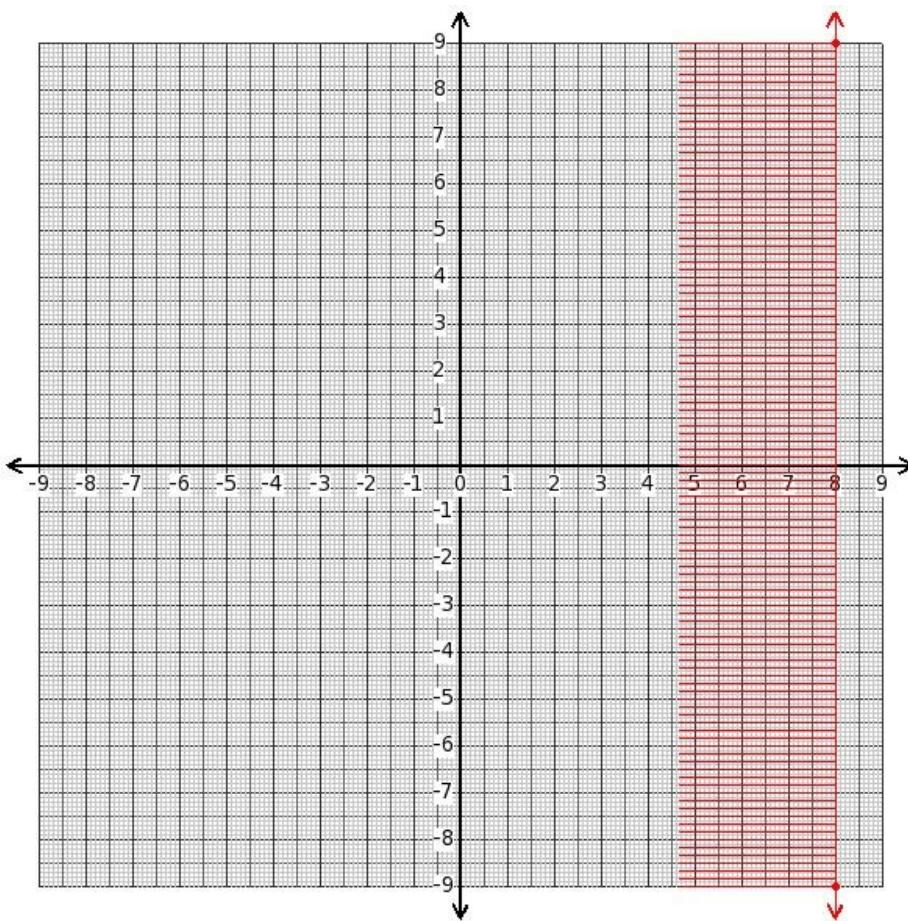
- (i)  $(y+1) \leq 0$  (ii)  $(y-2) \leq 0$  (iii)  $(y-5) \leq 0$  (iv)  $(y+6) \leq 0$  (v)  $(y-1) \leq 0$

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



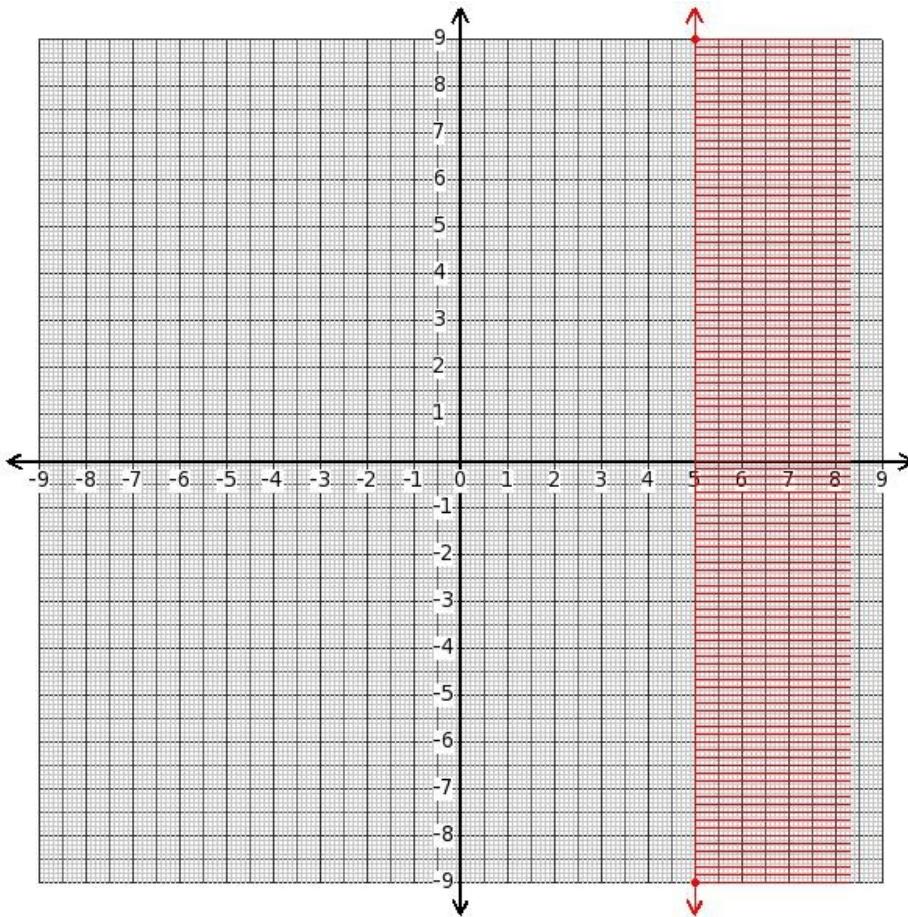
- (i)  $(y-2) \geq 0$  (ii)  $(y-4) \geq 0$  (iii)  $(y-8) \geq 0$  (iv)  $(y+8) \geq 0$

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



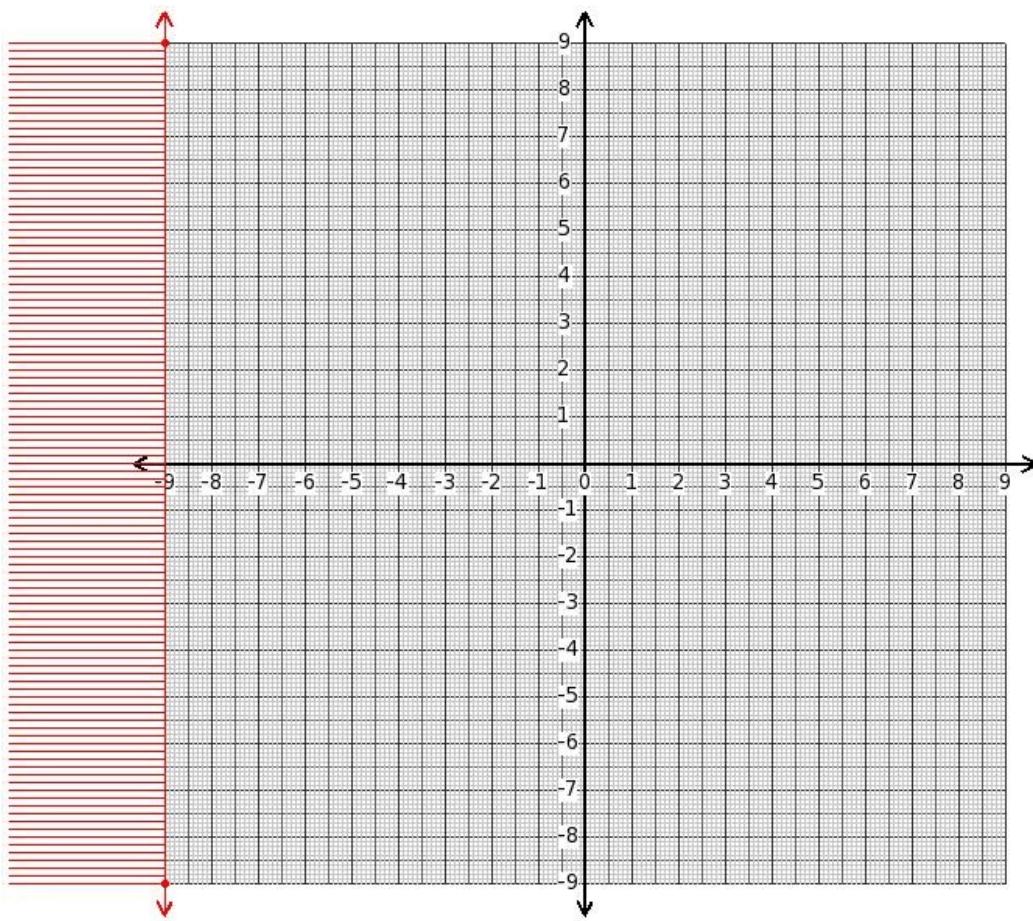
- (i)  $(x-4) < 0$  (ii)  $(x+5) < 0$  (iii)  $(x+8) < 0$  (iv)  $(x-8) < 0$

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



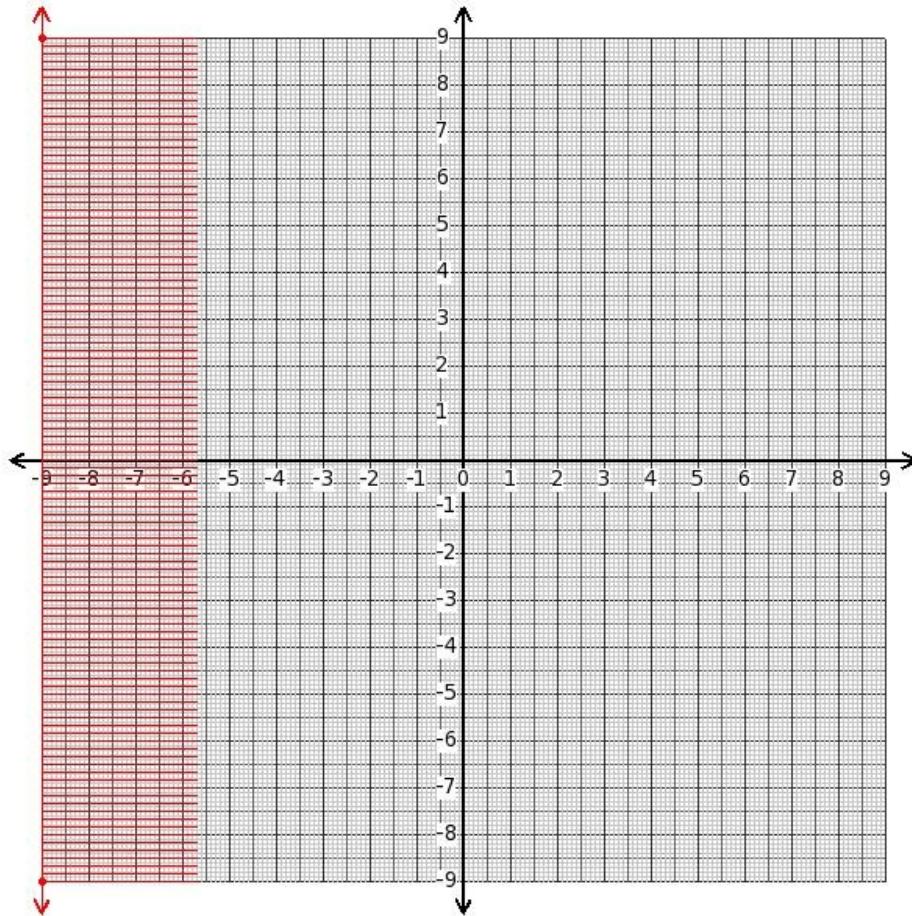
- (i)  $(x-7) > 0$  (ii)  $(x+9) > 0$  (iii)  $(x-1) > 0$  (iv)  $(x-8) > 0$  (v)  $(x-5) > 0$

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



- (i)  $(x-1) \leq 0$  (ii)  $(x-3) \leq 0$  (iii)  $(x-6) \leq 0$  (iv)  $(x+4) \leq 0$  (v)  $(x+9) \leq 0$

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



- (i)  $(x+2) \geq 0$  (ii)  $x \geq 0$  (iii)  $(x+9) \geq 0$  (iv)  $(x+1) \geq 0$  (v)  $(x-4) \geq 0$

## Assignment Key

1) (iii)	2) (ii)	3) (iii)	4) (iv)	5) (i)	6) (iii)
7) (ii)	8) (iii)	9) (i)	10) (ii)	11) (iii)	12) (i)
13) (iv)	14) (iii)	15) (iv)	16) (v)	17) (i)	18) (v)
19) (iv)	20) (i)	21) (iii)	22) (iv)	23) (ii)	24) (i)
25) (v)	26) (iv)	27) (v)	28) (ii)	29) (v)	30) (i)
31) (v)	32) (v)	33) (iv)	34) (i)	35) (iii)	36) (iii)
37) (i)	38) (i)	39) (ii)	40) (ii)	41) (i)	42) (iv)
43) (ii)	44) (v)	45) (iv)	46) (v)	47) (v)	48) (ii)
49) (v)	50) (v)	51) (iii)	52) (ii)	53) (i)	54) (ii)
55) (iv)	56) (v)	57) (ii)	58) (ii)	59) (i)	60) (i)
61) (i)	62) (iii)	63) (iv)	64) (ii)	65) (i)	66) (ii)
67) (v)	68) (iv)	69) (iii)	70) (i)	71) (ii)	72) (iii)
73) (iii)	74) (i)	75) (v)	76) (iv)	77) (iv)	78) (v)
79) (v)	80) (iii)				