



1. Which of the following is an inequation?

- (i)  $(8x+3) \leq 0, x \in \mathbb{Z}$  (ii)  $(3x+2) = 0$  (iii) 1 (iv)  $(8x+4)$

2. Which of the following is not an inequation?

- (i)  $(-4x-8) = 6$  (ii)  $(7x-2) \leq 9, x \in \mathbb{Z}$  (iii)  $(-6x-7) \geq 0, x \in \mathbb{Z}$  (iv)  $(-x+2) < 8, x \in \mathbb{Z}$   
(v)  $(9x+7) > (-9), x \in \mathbb{Z}$

3. Which of the following is not an inequation?

- (i)  $(-8x+9) \leq (-3x+7), x \in \mathbb{Z}$  (ii)  $(7x-8) < (5x-2), x \in \mathbb{Z}$  (iii)  $(2x+3) \geq (-9x-1), x \in \mathbb{Z}$   
(iv)  $(-3x+5) > (-4x-8), x \in \mathbb{Z}$  (v)  $(-9x+8) = (-3x+7)$

4. Which of the following inequations is the same as

$(8x+2) < (-2x+5), x \in \mathbb{Z}$

- (i)  $(4x+4) < (-2x+5), x \in \mathbb{Z}$  (ii)  $(4x+4) > (-2x+5), x \in \mathbb{Z}$  (iii)  $(8x+2) < (-6x+7), x \in \mathbb{Z}$   
(iv)  $(4x+4) < (-6x+7), x \in \mathbb{Z}$  (v)  $(8x+2) > (-6x+7), x \in \mathbb{Z}$

5. Which of the following inequations is the same as

$(9x+5) < (2x+8), x \in \mathbb{Z}$

- (i)  $(x+9) < (-6x+12), x \in \mathbb{Z}$  (ii)  $(x+9) > (2x+8), x \in \mathbb{Z}$  (iii)  $(9x+5) > (-6x+12), x \in \mathbb{Z}$   
(iv)  $(x+9) < (2x+8), x \in \mathbb{Z}$  (v)  $(9x+5) < (-6x+12), x \in \mathbb{Z}$

6. Which of the following inequations is the same as

$(2x+9) \leq (7x+9), x \in \mathbb{Z}$

- (i)  $(-6x+13) > (7x+9), x \in \mathbb{Z}$  (ii)  $(-6x+13) \leq (-x+13), x \in \mathbb{Z}$  (iii)  $(-6x+13) < (7x+9), x \in \mathbb{Z}$   
(iv)  $(2x+9) < (-x+13), x \in \mathbb{Z}$  (v)  $(2x+9) > (-x+13), x \in \mathbb{Z}$

7. Which of the following inequations is the same as

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

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

8. Which of the following inequations is the same as

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

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

9. Which of the following inequations is the same as

$(-7x-9) > (4x+8), x \in \mathbb{Z}$

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

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

10. Which of the following inequations is the same as

$(2x+9) \geq (-8x-2), x \in \mathbb{Z}$

(i)  $8x \geq (-2x-11), x \in \mathbb{Z}$  (ii)  $8x > (-8x-2), x \in \mathbb{Z}$  (iii)  $8x < (-8x-2), x \in \mathbb{Z}$  (iv)  $(2x+9) > (-2x-11), x \in \mathbb{Z}$

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

11. Which of the following inequations is the same as

$(-4x-3) \geq (-3x+1), x \in \mathbb{Z}$

(i)  $(-4x-3) > (-8x-8), x \in \mathbb{Z}$  (ii)  $(-9x-12) \geq (-8x-8), x \in \mathbb{Z}$  (iii)  $(-9x-12) < (-3x+1), x \in \mathbb{Z}$

(iv)  $(-4x-3) < (-8x-8), x \in \mathbb{Z}$  (v)  $(-9x-12) > (-3x+1), x \in \mathbb{Z}$

12. Which of the following inequations is the same as

$(-x) < (2x-8), x \in \mathbb{Z}$

(i)  $(-x) > (-10x+40), x \in \mathbb{Z}$  (ii)  $(-x) < (-10x+40), x \in \mathbb{Z}$  (iii)  $5x > (2x-8), x \in \mathbb{Z}$  (iv)  $5x < (2x-8), x \in \mathbb{Z}$

(v)  $5x > (-10x+40), x \in \mathbb{Z}$

13. Which of the following inequations is the same as

$(-7x-3) \leq (-9x+9), x \in \mathbb{Z}$

(i)  $(56x+24) \geq (72x-72), x \in \mathbb{Z}$  (ii)  $(56x+24) < (-9x+9), x \in \mathbb{Z}$  (iii)  $(-7x-3) > (72x-72), x \in \mathbb{Z}$

(iv)  $(56x+24) > (-9x+9), x \in \mathbb{Z}$  (v)  $(-7x-3) < (72x-72), x \in \mathbb{Z}$

14. Which of the following inequations is the same as

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

(i)  $(5x-8) < 36x, x \in \mathbb{Z}$  (ii)  $(5x-8) > 36x, x \in \mathbb{Z}$  (iii)  $(-45x+72) > (-4x), x \in \mathbb{Z}$

(iv)  $(-45x+72) < (-4x), x \in \mathbb{Z}$  (v)  $(-45x+72) < 36x, x \in \mathbb{Z}$

15. Which of the following inequations is the same as

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

(i)  $(45x+25) > (-6x+5), x \in \mathbb{Z}$  (ii)  $(9x+5) > (-30x+25), x \in \mathbb{Z}$  (iii)  $(45x+25) < (-6x+5), x \in \mathbb{Z}$

(iv)  $(45x+25) \geq (-30x+25), x \in \mathbb{Z}$  (v)  $(9x+5) < (-30x+25), x \in \mathbb{Z}$

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

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

(i)  $(-18x-6) < (-x-5), x \in \mathbb{Z}$  (ii)  $(-3x+1) < (14x+2), x \in \mathbb{Z}$  (iii)  $(-7x+3) < (10x+4), x \in \mathbb{Z}$

(iv)  $(-3x+1) < (15x+8), x \in \mathbb{Z}$  (v)  $(-2x+7) < (15x+8), x \in \mathbb{Z}$

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

$(-2x-8) < (9x-6), x \in \mathbb{Z}$

(i)  $(-8x-6) < (3x-4), x \in \mathbb{Z}$  (ii)  $(-7x-15) < (4x-13), x \in \mathbb{Z}$  (iii)  $(-7x-8) < (4x-6), x \in \mathbb{Z}$

(iv)  $(-15) < (11x-13), x \in \mathbb{Z}$  (v)  $(-15) < (4x-6), x \in \mathbb{Z}$

Which of the following inequations is not the same as

18.  $(3x+6) \leq (-8x+4), x \in \mathbb{Z}$

- (i)  $(10x+10) \leq (-x+8), x \in \mathbb{Z}$  (ii)  $(10x+10) \leq (-10x+9), x \in \mathbb{Z}$  (iii)  $(-5x-2) \leq (-16x-4), x \in \mathbb{Z}$   
(iv)  $(x+11) \leq (-10x+9), x \in \mathbb{Z}$  (v)  $(-3x+9) \leq (-14x+7), x \in \mathbb{Z}$

Which of the following inequations is not the same as

19.  $(3x+9) \leq (-5x-3), x \in \mathbb{Z}$

- (i)  $(6x+1) \leq (-2x-11), x \in \mathbb{Z}$  (ii)  $7x \leq (-x-12), x \in \mathbb{Z}$  (iii)  $(x+9) \leq (-7x-3), x \in \mathbb{Z}$   
(iv)  $(9x+14) \leq (x+2), x \in \mathbb{Z}$  (v)  $(9x+14) \leq (-7x-3), x \in \mathbb{Z}$

Which of the following inequations is not the same as

20.  $(-3x+7) > (-5x+4), x \in \mathbb{Z}$

- (i)  $(-7x-2) > (3x+6), x \in \mathbb{Z}$  (ii)  $12 > (-2x+9), x \in \mathbb{Z}$  (iii)  $(3x+10) > (x+7), x \in \mathbb{Z}$   
(iv)  $(5x+9) > (3x+6), x \in \mathbb{Z}$  (v)  $(-7x-2) > (-9x-5), x \in \mathbb{Z}$

Which of the following inequations is not the same as

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

- (i)  $(6x+9) > (8x+5), x \in \mathbb{Z}$  (ii)  $(-7x+10) > (-5x+6), x \in \mathbb{Z}$  (iii)  $(-3x+17) > (-5x+6), x \in \mathbb{Z}$   
(iv)  $(-3x+13) > (-x+9), x \in \mathbb{Z}$  (v)  $(-3x+17) > (-x+13), x \in \mathbb{Z}$

Which of the following inequations is not the same as

22.  $(-2x+6) \geq (7x+9), x \in \mathbb{Z}$

- (i)  $(-6x+7) \geq (3x+10), x \in \mathbb{Z}$  (ii)  $(-4x+14) \geq (5x+17), x \in \mathbb{Z}$  (iii)  $(-8x-1) \geq (x+2), x \in \mathbb{Z}$   
(iv)  $(7x-3) \geq 16x, x \in \mathbb{Z}$  (v)  $(7x-3) \geq (3x+10), x \in \mathbb{Z}$

Which of the following inequations is not the same as

23.  $(7x-8) \geq 5x, x \in \mathbb{Z}$

- (i)  $(-2x-3) \geq (-4x+5), x \in \mathbb{Z}$  (ii)  $(8x-1) \geq (6x+7), x \in \mathbb{Z}$  (iii)  $(4x-13) \geq (2x-5), x \in \mathbb{Z}$   
(iv)  $(10x-12) \geq (8x-4), x \in \mathbb{Z}$  (v)  $(10x-12) \geq (-4x+5), x \in \mathbb{Z}$

Which of the following statements are true?

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

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

Which of the following inequations is not the same as

25.  $(x-9) < (3x-2), x \in \mathbb{Z}$

- (i)  $(-3x+27) < (-3x+2), x \in \mathbb{Z}$  (ii)  $(9x-81) < (27x-18), x \in \mathbb{Z}$  (iii)  $(-x+9) > (-3x+2), x \in \mathbb{Z}$   
(iv)  $(x-9) < (3x-2), x \in \mathbb{Z}$  (v)  $(-3x+27) > (-9x+6), x \in \mathbb{Z}$

Which of the following inequations is not the same as

26.  $(x+2) \leq (-7x-6), x \in \mathbb{Z}$

(i)  $(-5x-10) \leq (56x+48), x \in \mathbb{Z}$  (ii)  $(6x+12) \leq (-42x-36), x \in \mathbb{Z}$  (iii)  $(3x+6) \leq (-21x-18), x \in \mathbb{Z}$

(iv)  $(-5x-10) \geq (35x+30), x \in \mathbb{Z}$  (v)  $(-8x-16) \geq (56x+48), x \in \mathbb{Z}$

Which of the following inequations is not the same as

27.  $(-8x+3) > (-x+5), x \in \mathbb{Z}$

(i)  $(8x-3) > (3x-15), x \in \mathbb{Z}$  (ii)  $(40x-15) < (5x-25), x \in \mathbb{Z}$  (iii)  $(24x-9) < (3x-15), x \in \mathbb{Z}$

(iv)  $(8x-3) < (x-5), x \in \mathbb{Z}$  (v)  $(72x-27) < (9x-45), x \in \mathbb{Z}$

Which of the following inequations is not the same as

28.  $(-3x+1) \geq 2x, x \in \mathbb{Z}$

(i)  $(3x-1) \geq 18x, x \in \mathbb{Z}$  (ii)  $(9x-3) \leq (-6x), x \in \mathbb{Z}$  (iii)  $(3x-1) \leq (-2x), x \in \mathbb{Z}$  (iv)  $(6x-2) \leq (-4x), x \in \mathbb{Z}$

(v)  $(-27x+9) \geq 18x, x \in \mathbb{Z}$

## Assignment Key

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

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