

Name: _____ Period: _____ Date: _____

Solving Inequalities Using Addition and Subtraction Assignment

Solve each inequality.

1. $x + 6 < 8$

2. $-10 > a - 6$

3. $5 \leq y + 6$

4. $8 + x \leq -9$

5. $-4 + a < 20$

6. $y - 1 > 0$

7. $x - 3 > 2$

8. $-2 > a - 5$

9. $y + 5 < 4$

10. $-8 \leq x - 14$

11. $6 \leq a + 2$

12. $y - 3 \geq 12$

13. $-2 + x < 0$

14. $5.2a + 6.7 \geq 6.2a$

15. $7y \leq 6y - 2$

16. $4x > 3x - 1$

17. $7 + y > 2y$

18. $13y \geq 12y + 52$

Solving Inequalities Using Addition and Subtraction Assignment

Write and solve an inequality.

19. Thirty is less than the sum of a number x and 8.

20. Twice a number x is more than the sum of that number x and 14.

21. The sum of a number x and -7 is less than or equal to 18.

22. Four times a number is less than or equal to the sum of three times the number and -2.

Write each inequality.

23. The oldest man alive is 146 years old. Write an inequality that describes the age of any other man alive.

24. The fastest land animal is the cheetah which has a recorded speed of up to 120.7 km/h. Write an inequality that describes the speed of other land animal.

25. In a 50 item exam, Ben needs to get at least 25 correct answer to pass. If Ben is certain of his 20 answers, how correct answers does he need to get in order to pass the subject?

Solving Inequalities Using Addition and Subtraction Assignment**ANSWER**

Solve each inequality.

1. $x + 6 < 8$

$$x + 6 - 6 < 8 - 6$$

$$x < 2$$

2. $-10 > a - 6$

$$-10 + 6 > a - 6 + 6$$

$$-4 > a$$

3. $5 \leq y + 6$

$$5 - 6 \leq y + 6 - 6$$

$$-1 \leq y$$

4. $8 + x \leq -9$

$$8 - 8 + x \leq -9 - 8$$

$$x \leq -17$$

5. $-4 + a < 20$

$$-4 + 4 + a < 20 + 4$$

$$a < 24$$

6. $y - 1 > 0$

$$y - 1 + 1 > 0 + 1$$

$$y > 1$$

7. $x - 3 > 2$

$$x - 3 + 3 > 2 + 3$$

$$x > 5$$

8. $-2 > a - 5$

$$-2 + 5 > a - 5 + 5$$

$$3 > a$$

9. $y + 5 < 4$

$$y + 5 - 5 < 4 - 5$$

$$y < -1$$

10. $-8 \leq x - 14$

$$-8 + 14 \leq x - 14 + 14$$

$$6 \leq x$$

11. $6 \leq a + 2$

$$6 - 2 \leq a + 2 - 2$$

$$4 \leq a$$

12. $y - 3 \geq 12$

$$y - 3 + 3 \geq 12 + 3$$

$$y \geq 15$$

13. $-2 + x < 0$

$$-2 + 2 + x < 0 + 2$$

$$x < 2$$

14. $5.2a + 6.7 \geq 6.2a$

$$5.2a - 5.2a + 6.7 \geq 6.2a - 5.2a$$

$$6.7 \geq a$$

15. $7y \leq 6y - 2$

$$7y - 6y \leq 6y - 6y - 2$$

$$y \leq -2$$

16. $4x > 3x - 1$

$$4x - 3x > 3x - 3x - 1$$

$$x > -1$$

17. $7 + y > 2y$

$$7 + y - y > 2y - y$$

$$7 > y$$

18. $13y \geq 12y + 52$

$$13y - 12y \geq 12y - 12y + 52$$

$$y \geq 52$$

Write and solve an inequality.

19. Thirty is less than the sum of a number
- x
- and 8.

$30 < x - 8$

$30 + 8 < x - 8 + 8$

$22 < x$

20. Twice a number
- x
- is more than the sum of that number
- x
- and 14.

$2x > x + 14$

$2x - x > x - x + 14$

$x > 14$

Solving Inequalities Using Addition and Subtraction Assignment

21. The sum of a number x and -7 is less than or equal to 18.

$$x + (-7) \leq 18$$

$$x + (-7) + 7 \leq 18 + 7$$

$$x \leq 25$$

22. Four times a number is less than or equal to the sum of three times the number and -2.

$$4x \leq 3x + (-2)$$

$$4x - 3x \leq 3x - 3x + (-2)$$

$$x \leq -2$$

Write each inequality.

23. The oldest man alive is 146 years old. Write an inequality that describes the age of any other man alive.

$$z < 146$$

24. The fastest land animal is the cheetah which has a recorded speed of up to 120.7 km/h. Write an inequality that describes the speed of other land animal.

$$x < 120.7$$

25. In a 50 item exam, Ben needs to get at least 25 correct answer to pass. If Ben is certain of his 20 answers, how correct answers does he need to get in order to pass the subject?

$$20 + x \geq 25$$

$$20 - 20 + x \geq 25 - 20$$

$$x \geq 5$$