Name: _____ Period: _____ Date: _____

Inequalities and Their Graphs Assignment

Check whether the given number is a solution of the inequality.

1. $x - 4 < 8$ $x = 5$

2. $3x - 8 < 10$ $x = 4$

3. $8x - 2 \geq 16$ $x = 4$

4. $x^2 - 5 > 8$ $x = 3$

5. $11 + 3x \leq 17$ $x = 2$

6. $x^3 - 18 \leq 8$ $x = 3$

7. $8 + x > 15$ $x = 7$

8. $27 \leq 11x - 8$ $x = 3$

Write each algebraic expression from the verbal expression.

9. The sum of 15 and x is greater than or equal to 12 minus y.

10. The difference of x and 7 is greater than 23.

11. The sum of x and 8 is less than or equal to 24.

12. The product of 3 and x is less than 15.

13. The difference of **9** and y is greater than or equal to 14.

14. x is greater than y divide by 2.

15. The product of x and 8 is less than or equal to 17.

16. x is less than 19 plus y.

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Inequalities and Their Graphs Assignment

Graph each inequality.

17. $z \leq -20$

18. $m > 10$

19. $a \leq -10$

20. $b > 12$