

Name _____

Date _____

Homework #25

Period _____

Directions: Show all work, even for the multiple choice questions. *Graph your answer on a number line to help you.*

1) Which value of x is in the solution set of the inequality $-2x + 5 > 17$?

- (1) -8
- (2) -6
- (3) -4
- (4) 12

2) Which value of x is in the solution set of the inequality $5 \geq 2x + 9$?

- (1) -1
- (2) -2
- (3) 0
- (4) 1

3) Which value of x is in the solution set of the inequality $3x - 2 > -11$?

- (1) -4
- (2) -3
- (3) -2

4) Which value of x is in the solution set of the inequality $2x - 6 \leq 18$?

- (1) 5
- (2) 13
- (3) 24
- (4) 26

5) Which value of x is in the solution set of the inequality $-4x + 2 > 10$?

- (1) -2
- (2) 2
- (3) 3
- (4) -4

6) Which value of x is in the solution set of $\frac{4}{3}x + 5 < 17$?

- (1) 8
- (2) 9
- (3) 12
- (4) 16

7) Which value of x is in the solution set of the inequality $-2(x - 5) < 4$?

- (1) 0
- (2) 2
- (3) 3
- (4) 5

8) What is the solution of the inequality: $-6x - 17 \geq 8x + 25$

- (1) $x \geq 3$
- (2) $x \leq 3$
- (3) $x \geq -3$
- (4) $x \leq -3$

9) Which is the solution for the inequality $-3x + 4 \leq 16$?

- (1) $x \leq -4$
- (2) $x \geq -4$
- (3) $x \leq 4$
- (4) $x < 4$

10) What is the solution of $3(2m - 1) \leq 4m + 7$?

- (1) $m \leq 5$
- (2) $m \geq 5$
- (3) $m \leq 4$
- (4) $m \geq 4$

11) Which of the following is a member of the solution set of $-6 < x \leq -1$?

- (1) -7
- (2) -1
- (3) -6
- (4) 3

12) Find the solution set for this inequality:
 $3 - 3x \geq x + 15$

13) Solve for x : $2(3x - 7) \leq 22$

14) Solve algebraically for x :
 $2(x - 4) \geq \frac{1}{2}(5 - 3x)$

15) Solve algebraically for y :
 $3(y - 1) - 4 \leq 2 - 4(2 - y)$