Directions: Choose the correct answer.

1. Two times the sum of a number and 8 is less than five. Represent in inequality form.
   a) $X + 8 < 5$
   b) $2(x + 8) < 5$
   c) $2x + 8 < 5$
   d) $2x < 5$
2. Which of the following is the solution of the inequality $2 - 3x < -7$?
   a) $x \geq$
   b) $x < -3$
   c) $x > 3$
   d) $x < -\frac{5}{3}$
3. Solve for the value of x in the inequality $|3x - 2| < 5$?
   a) $-1 \leq x < \frac{7}{3}$
   b) $-1 \leq x < \frac{8}{3}$
   c) $-2 < x < \frac{7}{3}$
   d) $-2 < x < \frac{8}{3}$
4. Solve for the value of x in the inequality $\frac{3(2x+6)}{5} < 9$
   a) $x < \frac{1}{3}$
   b) $x < \frac{7}{2}$
   c) $x < \frac{5}{3}$
   d) $x < \frac{9}{2}$
5. Three times a number add to 3 is less than two times the same number minus 4. What is the number?
   a) $x < 7$
   b) $x < -7$
   c) $x > 7$
   d) $x > -7$

6. The solution of the inequality $x - 19 \leq -3x - 7 \leq 2x + 3$ is?

a) $-2 \leq x \leq 3$

b) $1 \leq x \leq 3$

c) $-4 \leq x \leq 3$

d) $-1 \leq x \leq 3$

7. Which of the following is the solution of the inequality $4(\frac{x}{3} + \frac{1}{2}) > \frac{x}{2} + 7$?

a) $X > 7$

b) $X > 6$

c) $X > 5$

d) $X > 64$

8. What is the value of x in the inequality $(x + 1)^2 > (x - 5)^2$?

a) $X < 2$

b) $x \leq 2$

c) $x > 4$

d) $x > 2$

9. Consider which one is linear inequality in one variable

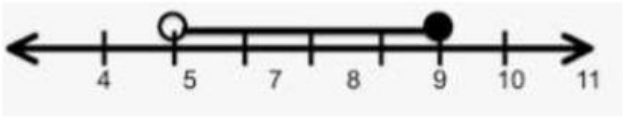
a) $2x + 8 < 5$

b) $X + y + 10 < 5$

c) $\frac{3(2x+6)}{5} = 9$

d) $4X^2 + 2x + 10 < 5$

10. Which inequality equation best represent the solution shown on the number line below.



a) $x > 5$

b) $5 \leq x \leq 9$

c) $5 < x \leq 9$

d) $x \geq 9$

11. Which word sentence represent the solution shown on the number line below.

a) Represent 2, and every number more than or equal to 2

b) Every number more than 2

c) Represent 2, and every number less than 2

d) Represent 2, and every number less than or equal to 2

Part II.

Direction: Show your working clearly.

12. Solve the inequality and graph it on a number line. $4(2x - 3) + 2(1 - 2x) \leq 2x - 5$

13. Solve the inequality and graph it on a number line. $|x - 3| < 7$

14. Three times a number minus 15 is less than 6. Find this number.

15. Solve the inequality. $2(x - 1) \leq 5(x + 2) - 3$

Good luck!!