

Name _____ Date _____ Period _____

Unit 3 Test Review

I. Solve the equation

1. $-18 + x = 6$

2. $-\frac{4}{3}x = 8$

3. $3x - 1 = x + 4$

4. $-4(3 - x) + 6 = 2(x - 3)$

5. $2(7 - x) = 6(1 + 2x)$

6. $-(3 + x) = 8 - 3(1 - x)$

7. $|3x - 2| = 8$

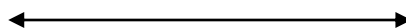
8. $|x + 3| = 5$

II. Solve and graph the inequality.

9. $x - 5 \geq 2$



10. $-3x + 7 \geq 2(x - 4)$



11. $-2 < 2x - 5 < 3$



12. $5x - 3 < 3x + 1$



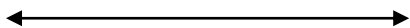
13. $\frac{1}{2}x - 1 \leq 5$ or $x - 2 \geq 16$



14. $1 - 2x \leq -3$ or $3 - x \geq 5$



15. $-4 \leq 2 - x \leq 6$

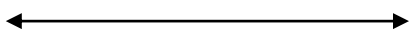


16. $2x + 3 < 5$ or $6 - x < 2$

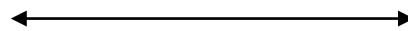


III. Solve each absolute value inequality algebraically.

17. $|4 - x| < 5$



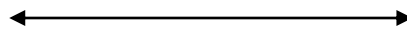
18. $|3x + 2| \geq 7$



19. $|2x + 4| \leq 8$



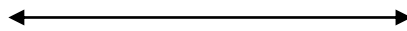
20. $|3x - 7| > 14$



21. $|10 - 8x| \geq 6$



22. $|x - 6| \geq 5$



Mixed-up Answers

$$x \geq 2 \text{ or } x \leq -2$$

$$x = 24$$

$$-6 \leq x \leq 2$$

$$x = -6$$

$$x = \frac{4}{7}$$

$$-4 \leq x \leq 6$$

$$x > 7 \text{ or } x < -\frac{7}{3}$$

$$x \leq \frac{1}{2} \text{ or } x \geq 2$$

$$x \geq 7$$

$$x \geq \frac{5}{3} \text{ or } x \leq -3$$

$$-1 < x < 9$$

$$x = 0$$

$$x < 2$$

$$x \leq 3$$

$$\frac{3}{2} < x < 4$$

$$x = -2$$

$$x = \frac{5}{2}$$

$$x = \frac{10}{3} \text{ or } x = -2$$

$$x \geq 11 \text{ or } x \leq 1$$

$$x < 1 \text{ or } x > 4$$

$$x \leq 12 \text{ or } x \geq 18$$

$$x = 2 \text{ or } x = -8$$