

Simplify all answers and show your work!

1.  $|-3| - 2 \cdot |4|$

2.  $\frac{-5^2}{25+3}$

3. Simplify:  $4y - 5(y - 6) - 10$

4. Solve the equation:  $-9x - (4 + 3x) = -(2x - 1) + 25$

5. Solve the inequality:  $14 - 3(x + 2) \geq -x$

6. Solve the inequality:  $-12 < 2x - 3 < 3$

Let  $A = \{8, 9, 11, 13\}$  and  $B = \{10, 12, 13, 15\}$

7. Find  $A \cup B$

8. Find  $A \cap B$

9. Solve the absolute value:  $|3x - 2| = 4$

10. Solve the absolute value inequality:  $|4x - 3| > 9$

11. Solve for L:  $V = LWH$

12. Simplify:  $(6x^3 - 5x^2 + 9x - 2) - (8x^3 - 7x + 9) + (10x^2 - 5x)$

13. Solve for x:  $\frac{x-3}{4} + \frac{x}{3} = \frac{19}{12}$

14. Simplify:  $\frac{-3[2 - (-2 + 1) + 4]}{2^3(-3)}$

15. Solve the inequality:  $-\frac{3}{2}x > -6$