**Homework #1 Problems:**

**Part 1: Simplifying Expressions**

1. Simplify: (5x³ - 3x² + 2x - 10) - (2x³ + x² - 4x + 3)
2. Simplify: -3m²n(4mn³ - 2m²n + 5m)
3. Simplify: (2a + 5)(3a - 4)
4. Simplify: (x - 6)²
5. Simplify: (32p⁵q³) / (4p²q⁶)
6. Simplify: √75
7. Simplify (Factor and cancel if possible): (x² - 16) / (x - 4)

**Part 2: Solving Linear Equations**

8. Solve for k: 9k - 13 = 5k + 7

9. Solve for x: 5(2x - 1) - 2(3x + 4) = 3

10. Solve for m: (m/2) + (m/5) = 14

11. Solve for W: A = LW

**Part 3: Solving Linear Inequalities & Absolute Value**

12. Solve and graph on a number line: 7 - 4x > 23

13. Solve and graph on a number line: 3(x - 2) + 5x ≤ 2x + 12

14. Solve: |4x - 3| = 13

15. Solve and graph on a number line: |x + 2| < 6

16. Solve and graph on a number line: |3x - 6| ≥ 9

**Part 4: PSAT-Style Question**

17. If (1/2)x + 3 = 7, what is the value of x?

(A) 2 \* (B) 4 \* (C) 8 \* (D) 16