Math 54 – Beginning Algebra – Chapter 2 Test – Spring '11   Name_____

Instructions:

- Write all your responses to the following on separate paper.
- Show your work for credit.
- Take as much space as you need. Do not crowd into corners.
- Do not use an electronic calculator.

1. Simplify the expression as much as possible: $5x+10(2x-1)+25(3x-2)$

2. Find the value of the expression $5x+10(2x-1)+25(3x-2)$ when $x = 3$.

3. Find the value of the expression $10(2x+1)-5x$ when $x = -1$.

4. Solve each equation:
   a. $15 - 6x + 8x = 20$
   b. $0.6x - 0.3 = 0.1x + 0.7$
   c. $\dfrac{2}{5}(20-10x)=\dfrac{1}{2}(10-20x)$

5. Solve $2x + 5y = 20$ for y.

6. Solve $\dfrac{x}{2}+\dfrac{y}{3}=6$ for y.

7. 126 is 30% of what number?

   Use the algebraic method to solve the following problems. Remember to define your variable:

8. One number is three more than twice another. The sum of the numbers is 39. Find the numbers.

9. The length of a rectangle is one more than twice its width. The perimeter is 20 inches. Find the length and the width.

10. A collection 22 coins is worth $1.50. If the coins are nickels and dimes, how many of each type of coin are there?