Foundations of Math I Homework #4 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Block: \_\_\_\_\_

**Directions:** Complete each of the following on a separate sheet of paper!

**ADDING AND SUBTRACTING POLYNOMIALS**

Find each sum or difference.

1. (4a - 5) + (3a + 6)
2. (3p2 - 2p + 3) - (p2 - 7p + 7)
3. (7x2 - 8) + (3x2 + 1)
4. (x2 + y2) - (-x2 + y2)
5. (5x2 - x - 7) + (2x2 + 3x + 4)
6. (5a + 9b) - (4b + 2a)
7. (5x + 3z) + 9z
8. 6p - (8q + 5p)
9. (5a2x + 3ax2 - 5x) + (2a2x - 5ax2 + 7x)
10. (x3 - 3x2y + 4xy2 + y3) - (7x3 -9x2y + xy2 + y3)

Find the measure of the third side of each triangle. P is the measure of the perimeter.

1. P = 3x + 3y
2. P = 9b2 – 2ab + 12a2

9ab + 8a2

7b2 – 2ab

4a2 – 4ab

???

x + y

x + y

**MULTIPLYING POLYNOMIALS**

Multiply each of the following.

1. 4x(2x + 6)
2. 9y2(5y – 3)
3. -6a(3a2 – 7a – 11)
4. 3z3(12z + 4z3 – 1)
5. 2pq(3p2 + 6pq + 7q2)
6. -5xy3( -3x3 + 7y – 2xy)
7. (3x + 2)(x + 4)
8. (2x + 5y)(7y – 3x)
9. (8r2 – 2r)(5r + 4)
10. (2n -7)(3n + 3)
11. (4x + 9)(2x2  – 5x + 3)
12. (3x + 5)2

**REVIEW**

1. -18 – 6h = 6(1 + 3h)
2. -3(4y + 3) + 4(6y + 1) = 43
3. 12 = -4(-6x – 3)
4. -5(1 – 5x) + 5(-8x – 2) = -4x – 8x
5. The standard form of a linear equation is

Ax + By = C. Solve this equation for x.

1. Solve  for **b**.
2. Solve E=mc2 for m
3. Simplify: 

9. Simplify:

 10. Write a simplifies expression for the area of the square below

