

Name: \_\_\_\_\_

**Solving Multi-Step Equations & Like Terms Study Guide**

Simplify the expressions (hint: "simplify" means to combine all like terms and get rid of parentheses!)

1)  $9x + 3x$

4)  $3x^2 + 6x^2 - 2x$

2)  $10y - 6y$

5)  $2ab + 3a - 6ab$

3)  $6x + 8y - 3x + 2y$

6)  $6ab + 2ac + 4ad$

SOLVE! SHOW YOUR WORK!

1)  $5x - 14 = 46$

2)  $\frac{x}{7} + 8 = 14$

3)  $-2x - 7 = 11$

4)  $\frac{x}{-3} - 4 = 5$

5)  $\frac{x}{2} - 6.8 = 13.3$

6)  $\frac{5}{6}x - 3 = 12$

7)  $-6 + \frac{2}{7}x = 4$

8)  $7x - 2x + 1 = 21$

$$9) \quad 4x + 3x - 4 = 10$$

$$10) \quad -6x - 7 - 4x = -37$$

$$11) \quad -52 = 4x + 7x - 8$$

$$12) \quad -70 = -5x - 7x - 10$$

$$13) \quad -2x - 2x - 2 = 10$$

$$14) \quad 2(x + 4) = 22$$

$$15) \quad 3(2x + 5) = 25$$

$$16) \quad 5(x - 3) = 20$$

$$17) \quad -4(5y - 6) = 4$$

$$18) \quad 4(4 - 6x) = -32$$

$$19) \quad -3(y - 1) = -21$$

$$20) \quad 2(3x + 2) = 34$$