Worksheet 2

## Identifying and Combining 'Like' Terms

**Instructions:** For each problem, if the pair of terms shown are 'Like' Terms, then combine them into a single term in the space provided. Otherwise, write "not like" if the terms can't be combined.

$$1$$
  $4x$  and

$$25x$$
 and  $5y$ 

$$2y^2$$
 and  $2y^2$ 

$$\mathbf{X}^2$$
 and  $\mathbf{X}^2$ 

$$b^2$$
 and  $2b^3$ 

$$4x^2$$
 and  $x$ 

$$\mathbf{x}\mathbf{y}^2$$
 and  $\mathbf{y}\mathbf{x}^2$ 

$$\mathbf{X}^2$$
 and  $\mathbf{X}^2$ 

$$5b^2$$
 and  $b^2$ 

$$4x^2$$
 and  $4x^2$ 

$$3a^2$$
 and  $4a^3$ 

$$4a^2$$
 and  $a^4$ 

$$a^4$$
 and  $2y^4$ 

$$10x^2$$
 and  $7x^2$ 

$$8y$$
 and  $8y$ 

$$4x^2$$
 and  $x^2$ 

$$\mathbf{x}$$
 and  $\mathbf{2y}$ 

$$\frac{1}{2}X$$
 and  $\frac{1}{2}X^2$ 

$$6c^2$$
 and  $2c^2$ 

$$\stackrel{\sim}{\mathbb{Z}}$$
  $\stackrel{\sim}{\mathbb{Z}}$   $\stackrel{\sim}{\mathbb{Z}}$  and  $\stackrel{\sim}{\mathbb{Z}}$ 

$$4y^5$$
 and  $xy^4$ 

$$\frac{1}{3}X$$
 and  $\frac{1}{3}X^3$ 

## Simplifying Algebraic Expressions

Instructions: Simplify each expression by combining like terms.

$$5x + 10 - 2x + 5$$

$$12x + 10 - 2x - 8$$

$$3x + 15$$

$$3x^2 + 4 - 2x^2 + 5$$

$$5x + 4y + 7x + y$$

$$3b + 2b + b + 2$$

$$3b - 2b - b + 2$$

$$y+7+y+3$$

$$3x + 4x^2 + 5x^2 + 1 + 15$$

$$x^3 + x^3 + x + 4$$

$$2x^3 + 4x^2 + 9 + x^2$$

$$3y^2 - y^2 - 2x^2 + x$$

$$3ab + 5a + 7ab + 2b$$