**Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**2.2: Adding Polynomials**

**Collecting Like Terms**

To write an expression in simplest form, you must collect like terms.

1. Simplify

a) $5x-2x+6x$ b) $6x+4-8x$

c) $4x-y+5+7y-2x$ d) $5-4x-7y+8x-2y+8$

Note:

* put the like terms together, remembering to take the sign with the term
* put answer in order: variable in alphabetical order with constant term at the end

**Adding Polynomials**

Steps to Adding Polynomials

1. Simplify each expression

a) $\left(4m^{2}+2m\right)+(8m^{2}+3m)$ b) $\left(-4y^{2}-5+8y\right)+(-9-8y^{2}+10y)$

c) $\left(3xy^{2}+9-4xy\right)+\left(-8xy-8y^{2}x\right)$

2. Add $2y^{2}-3y+4$ to $5y-5y^{2}-3$