8.2 Solving Systems of Equations Algebraically:

Recall:

Solve the system by substitution:

$$5a - 3b = 1$$

$$-2a + b = -3$$

Solve the system by elimination:

$$8a - 3b = 30$$

$$5a + 3b = 9$$

You may use either method: substitution is easier if you have a variable with coefficient of 1.

When working with quadratic systems, isolate the variable with no quadratic term.

Example 1: Solve by substitution:

$$3x + y = -9$$

$$4x^2 - x + y = -9$$

Example 2: Solve by elimination:

$$x + 2y = 46$$

$$x^2 - 3y = 93$$

Try: Solve by any method: Verify the solution

$$6x^2 - x - y = -1$$

$$4x^2 - 4x - y = -6$$

Class work:

p 451:3-10