Ch 8.1 Solving Systems of Equations Graphically

The solution to a system of equation is an ordered pair (x, y) that satisfies all the equations.

For example: The point (4, 2) is a solution to the system of:

$$x + y = 6$$

$$2x - 3y = 2$$

Graphical Representation:

System of Linear-Quadratic Equations

System of Line Quadratic-Quadratic Equations

Example 1: Solve the equations graphically and verify the solution

a.)

$x - y + 1 = 0$

$x^2 - 6x + y = -3$

b.)

$2x^2 + 16x + y = -26$

$x^2 + 8x - y = -19$

Example 2: The sum of two integers is 13. The larger number is one more than the square of the smaller number. Determine the equations that represent these relations and determine the numbers.

Homework:

aP 435: 2-5, 8-11