Name: Date:

9.8 Note Sheet

3 Ways to Solve Systems of Equations: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Types of Functions:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Number of Solutions:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Example 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Example 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



Hw: Section 9.8 p. 599 #9, 11, 15, 19, 17, 21, 23, 25, 29, 30 (no solving by graphing only substitution or elimination)

Example 3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Example 4: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. The weekly profits of two different companies selling similar items that opened for business at the same time are modeled by the equations shown below. The profit is represented by *y* and the number of weeks the companies have been in business is represented by *x*. According to the projections, what week(s) did the companies have the same profit? What was the profit of both companies during the week(s) of equal profit?

Company A: *y =* *x*2 – 70*x* + 3341

Company X: *y =* 50*x* + 65

**Solve by graphing. Solve using your graphing calculator.**

1. *y =* *x*2 + 1 *y = x*+ 1 **2.** *y =* *x*2 + 5*x* + 13 *y =* *–*5*x* + 3

**Solve using elimination. Solve each system using substitution.**

**3.** *y =* –*x*2 + 4*x –* 3 *y =* –*x* + 1 5. *y =* *x*2 + *x –* 60 *y =* 2*x –* 4

4. *y =* –*x*2 + 2*x* + 4 *y =* –*x* + 4 6. *y =* *x*2 – 3*x* + 7 *y =* 4*x –* 3