Name:_____ Date:_____Period:_____

NOTES: SYSTEMS OF EQUATIONS

Word Problems

Day 1

STEPS TO SOLVE

_____ your variable(s) x = , y = , etc.

Write your system of _____

_____ the system of equations.

State your conclusion using "therefore" ∴

LET'S REVIEW!

Graphically, the solution to a system of equations is the point at which the lines _____.

Algebraically, it is the ordered pair that makes both equations _____.

The three methods for solving a system of equations are:

1._____ 2._____ 3._____

The _____ Method works great for today's problems!

TYPE 1: SIMPLE PROBLEMS

1. Austin and Maddie went to swim practice. Maddie swam two more than twice as many yards as Austin. Together, they swam 65 yards. How many yards did Austin swim?

TYPE 2: PERIMETER PROBLEMS

P = 2L + 2W

2. The length of a rectangle is five inches less than four times the width. The perimeter is 90 inches. What are the dimensions of the rectangle?

TYPE 3: QUANTITY/PRICE PROBLEMS

3. Your group purchased 25 tickets at the local movie theater. Each adult ticket costs $8 and each child ticket costs $5. Your group spent a total of $140. How many adult tickets were purchased?

Name:_____ Date:_____Period:_____

A.___ SYSTEMS OF EQUATIONS

Word Problems

Day 1

Solve each problem using a system of equations.

1. Jane and Jim collect coins. Jim has five more than twice the amount Jane has. They have 41 coins altogether. How many coins does Jim have? How many coins does Jane have?

2. Susie and Katie received candies on Valentine's Day. Susie received four less candies than Katie. Together, they received 16 total candies. How many candies did each of the girls receive?

3. The length of a rectangle is three times its width. The perimeter is 64 feet. What are the dimensions of the rectangle?

4. The width of a rectangle is half its length. The perimeter is 36 inches. What are the dimensions of the rectangle?

5. A piggy bank contains quarters and dimes. There are 30 coins in the jar, and the total value is $6.30. How many quarters and dimes are in the piggy bank? (**HINT:** Quarters are worth $0.25, and dimes are worth $0.10).

6. Sally bought shirts and pants for school. She bought a total of 8 items. Each pair of pants cost $28, and each shirt cost $12. She spent a total of $144. How many pairs of pants did Sally buy? How many shirts did she buy?