Oct. 13 Worksheet

1. What are the 3 methods of solving a system of linear equations?

2. Solve the system using substitution.

$x + 2y = 7$

$y = x - 2$

3. Solve using elimination.

$2x + 3y = 10$

$5x - 2y = 6$

4. Solve with either method.

$-3x + y = -2$

$6x - 2y = 8$

5. Solve with either method.

$2x + y = 3$

$4x + 2y = 6$

6. How do we find the dimensions of a matrix?

7. A small coffee shop sells two types of coffee blends: a house blend and a premium blend. The house blend costs $10 per pound, and the premium blend costs $15 per pound. One day, the shop sold a total of 50 pounds of coffee and made a total revenue of $600. How many pounds of each blend did the coffee shop sell?

8. A zoo sells three types of tickets: adult tickets, child tickets, and senior tickets.

A child ticket costs $5. A senior ticket costs $7. An adult ticket costs $10.

On a particular day, the zoo sold 600 tickets in total. The number of adult tickets sold was 1.5 times the number of child tickets. The total revenue from all ticket sales was $4,500. How many of each type of ticket were sold?

9. A company wants to create a fruit juice blend using three types of fruit purée: apple, grape, and cherry. The company wants to produce a blend that contains a specific amount of sugar, vitamin C, and potassium. The table below shows the amount of each nutrient per ounce of each type of purée.

	Apple	Grape	Cherry	Total
Sugar	15	10	25	2800
Vitamin C	5	20	10	1800
Potassium	10	15	20	2200