5.3

SOLVING SYSTEMS OF LINEAR EQUATIONS BY ELIMINATION (WORD PROBLEMS)

Solving Systems of Linear Equations

Define your variables, write the following as two equations, and DON'T solve.

1) **One customer purchases 8 bags of cat food and 2 bags of dog food. The total weight of the purchase is 44 pounds. Another customer purchases 5 bags of cat food and 2 bags of dog food. The total weight of the purchase is 35 pounds.**

Solving Systems of Linear Equations

Define your variables, write the following as two equations, and DON'T solve.

2) **You purchase 5 pounds of apples and 2 pounds of oranges for $9. Your friend purchases 5 pounds of apples and 6 pounds of oranges for $17. What is the price per pound for oranges? What is the price per pound for apples?**

Solving Systems of Linear Equations

Define your variables, write the following as two equations, and DON'T solve.

3) **A 100-point test contains a total of 20 questions. The multiple choice questions are worth 3 points each and the short response questions are worth 8 points each.**

Solving Systems of Linear Equations

Define your variables, write the following as two equations, and DON'T solve.

4) The local theater is showing a matinee and offering a special deal for thecommunity. A ticket for an adult costs $11and a ticket for a child costs $6. The theater sells a total of 60 tickets and collects $460. How many adult tickets and children tickets are sold?

Solving Systems of Linear Equations

Define your variables, write the following as two equations, and DON'T solve.

5) You and your friend are selling magazine subscriptions. You sell 8 fewer magazine subscriptions than your friend. Together you sell 42 magazine subscriptions. How many magazine subscriptions did you sell?