

Name: _____ Per: _____ Lesson SY – 5: Supplement

☠ *Note: Give this supplement when the exercise below is about to begin.* ☠



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Objective: Applying Systems to Real Problems.

Homework SY5 – The Doctor's Guide to the Real World



Do Now: Use substitution or elimination to solve the system.

1. $y = -20x$
 $y = -15x + 90$

2. $x + y = 10$
 $2x + 5y = 32$

State Test Prep: What is the sum of $3x$, $-5x$, $10x$, $-6y$, and $-8y$?

- A) $12x - 14y$ B) $18x + 14y$ C) $8x - 14y$ D) $6xy$

A very special message from The Doctor...

Nothing new in this lesson! Use what you know about all three methods to solve these real-world problems. Prepare yourself to become a better person...

The cost of 8 muffins and 2 quarts of milk is \$18. The cost of 3 muffins and 1 quart of milk is \$7.50. How much does 1 muffin and 1 quart of milk cost?

Timmy has just enough money, in coins, to pay for a \$2.85 loaf of bread. He has 15 coins consisting of only quarters and dimes. Find the number of dimes and quarters that Timmy is carrying.

A pet store currently has a total of 45 cats and dogs. There are 7 more cats than dogs. Find the number of cats and dogs in the store. Write and solve a system of equations that represents the situation.

The sum of Sally's age plus twice Tomas' age is 12. The difference of Sally's age and Tomas' age is 3. Write and solve a system of equations to find their ages.

Elena baked 36 cookies. There are 8 more chocolate chip cookies than peanut butter. Write and solve a system of equations that represent the situation.

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Mary sold 20 necklaces and bracelets at the craft fair. She sold 3 times as many necklaces as bracelets. Solve a system of equations for the situation.

A total of 75 cookies and cakes were donated for a bake sale to raise money for the football team. There were four times as many cookies donated as cakes. Write and solve a system of equations for the situation.

Mr. Thomas cooked 45 hamburgers and hot dogs at a cookout. He cooked twice as many hot dogs as hamburgers. Write and solve a system of equations for the situation.

Seven people went to the movies. The number of adults was one more than the number of children. Write a system of equations that represents the number of adults and children. Solve the system algebraically.

The length of a rectangle is three more than the width. The perimeter is 26 meters. Write and solve a system of equations that represents this situation. What are the dimensions of the rectangle?

Find the Break-Even Point: This is the point where income equals expenses.

A model airplane club publishes a newsletter. Expenses are \$0.90 for printing and mailing each copy, plus \$600 for research/writing. The price of the newsletter is \$1.50. How many copies must the club sell to break even?

A metalworker has some ingots of an alloy that are 20% copper and others that are 60% copper. How many kilograms of each should the worker combine to create 80 kg of a 52% copper alloy?