

NAME:

DATE:

A2.Q1.BERMEL/LEMBO:

SYSTEMS OF EQUATIONS

(DAY S4)

NOTES

COMBINING CONCEPTS

PLACE A BOX AROUND ALL YOUR ANSWERS

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1. Kevin and Kelly purchase some food for the holiday staff party.

Kevin buys 12 bagels and 6 bottles of soda for \$54.

Kelly buys 24 bagels and 3 bottles of soda for \$63.

Assuming all bagels are the same price and all soda bottles are the same price ...

- A. Write a system of equations that can be used to find the cost of a bagel and the cost of a bottle of soda. Be sure to define each variable.

- B. Solve the system of equations in part A using the method of **elimination**.

2. Todd purchased red and white signs for the ceremony. A red sign costs \$6 and a white sign cost \$4. He spent a total of \$240 for 50 signs? How many red signs did he purchase and how many white signs did he purchase?

A. Write a system of equation that could be used to solve for the amount of each sign that he purchased. Be sure to define your variables.

B. Solve the system of equation in Part A using the method of **elimination**.

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MASTERY PRACTICE REVIEW

PLACE A BOX AROUND ALL ANSWERS

1. Mike and Doris go to the MATH FUN STORE in Parsippany New Jersey.

Mike buys 10 notebooks and 3 calculators for \$270.

Doris buys 5 notebooks and 4 calculators for \$335.

Assuming all notebooks are the same price and all calculators are the same price ...

- A. Write a system of equations that can be used to *find the cost* of a notebook and the cost of a calculator at the MATH FUN STORE. Be sure to define each variable.

- B. Solve the system of equations in part A using the method of **elimination**.

2. Tony sold 10 gym memberships for a total of \$244 a month. Student memberships cost \$20 per month and adult memberships cost \$42 per month. *How many* of each membership did Tony sell?
- A. Write a system of equations that could be used to find how many of each membership Tony sold? Be sure to define your variables.
- B. Solve the system in Part A using the method of **elimination**.

3. Solve the system of equations using the method of **substitution**.

$$4x - 3y = 19$$

$$y = 2x - 3$$

4. Solve the system of equations using the method of **substitution**.

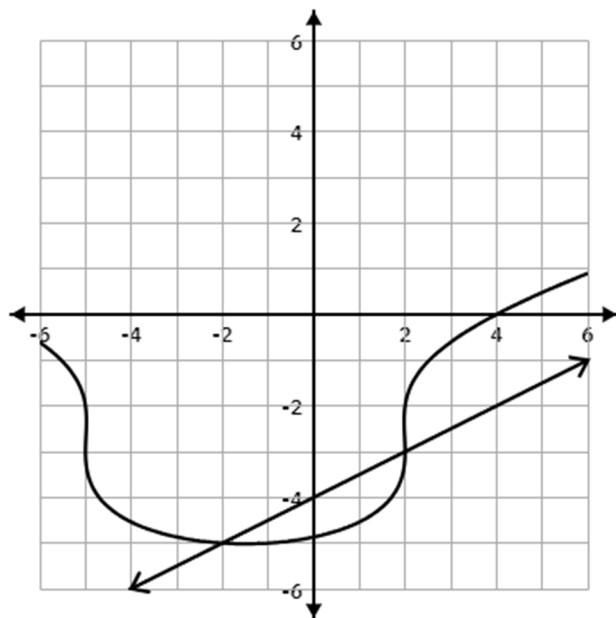
$$5x - 6y = 1$$

$$x = 3y + 2$$

5. Solve the system of equations using the provided graph.

$$x^2 + (y+3)^2 - (y+3)^3 + 3x - 10 = 0$$

$$y = -4 + \frac{1}{2}x$$



6. Determine if the point $(x = 2, y = 100)$ is a solution to the system of equations.

$$5x^2 + 3\sqrt{y} = 50$$

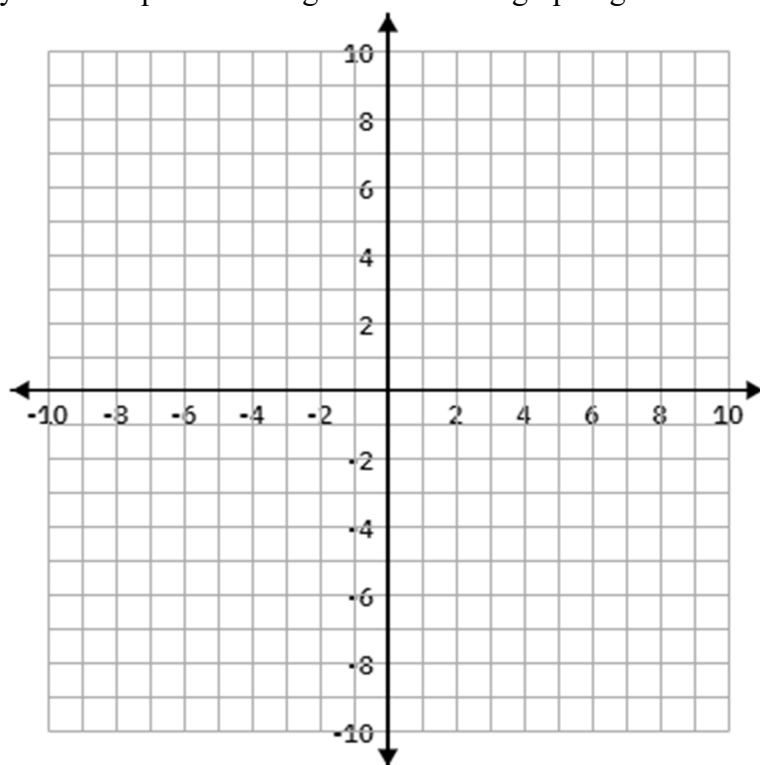
$$-x + y = 102$$

Show all work.

7. Solve the system of equations using the method of graphing.

$$y = 3x + 2$$

$$y = -\frac{1}{2}x - 5$$



8. Solve the system of equations using the method of graphing.

$$y = |x - 2| - 5$$

$$y = \frac{1}{5}x - 3$$

