

Student: \_\_\_\_\_  
Date: \_\_\_\_\_

Instructor: Deb Wertz  
Course: MAP102 MASTER

Assignment: Homework #23

1. A woman bought some large frames for \$16 each and some small frames for \$4 each at a closeout sale. If she bought 29 frames for \$236, find how many of each type she bought.

She bought \_\_\_\_\_ large frames.

She bought \_\_\_\_\_ small frames.

2. One number is nine less than a second number. Three times the first is 6 more than 4 times the second. Find the numbers.

The value of the first number is \_\_\_\_\_.

The value of the second number is \_\_\_\_\_.

3. At a concession stand, five hot dog(s) and four hamburger(s) cost \$16.50; four hot dog(s) and five hamburger(s) cost \$17.25. Find the cost of one hot dog and the cost of one hamburger.

What is the cost of one hot dog? \$ \_\_\_\_\_

What is the cost of one hamburger? \$ \_\_\_\_\_

4. Solve the system of equations.

$$\begin{cases} 9x - 2y = 65 \\ -2x + 5y = 22 \end{cases}$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- A. There is one solution. The solution of the system is \_\_\_\_\_.  
(Simplify your answer. Type an ordered pair.)
- B. The solution set of the system is  $\{(x,y) \mid 9x - 2y = 65\}$ .
- C. The solution set is  $\emptyset$ .

5. Solve the system of equations by the substitution method.

$$\begin{cases} \frac{x}{4} + y = -\frac{25}{4} \\ -x + 4y = -31 \end{cases}$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- A. There is one solution. The solution of the system is \_\_\_\_\_.  
(Simplify your answer. Type an ordered pair.)
- B. The solution set of the system is  $\left\{ (x,y) \mid \frac{x}{4} + y = -\frac{25}{4} \right\}$ .
- C. The solution set is  $\emptyset$ .

1. 10  
19

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2. -42  
-33

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3. 1.50  
2.25

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4. A. There is one solution. The solution of the system is (9,8). (Simplify your answer. Type an ordered pair.)

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5. A. There is one solution. The solution of the system is (3, -7). (Simplify your answer. Type an ordered pair.)

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