Name: _____ Date: _____

BLM 9–3

Chapter 9 Warm-Up

Section 9.1 Warm-Up

1. Describe the two unknown variables in this word problem: 100 people attended the opening day of the school's drama presentation. Tickets were $2 per student and $5 per adult. The drama brought in $520.

2. The cost to ride the ferry with a car and two adults is $65. The cost for three adults to walk onto the ferry is $33. Describe the two unknowns in this scenario.

3. Solve for y.
   a) $2x - 3y = 12$
   b) $5x + 2y = -20$

4. Solve.
   a) $2x - 3(x - 2) = 5$
   b) $5y - (3y + 4) = -1$

5. Simplify.
   a) $x + 15 - \frac{3}{2}x + \frac{1}{2}$
   b) $2y - 4 - \frac{6}{5}x - 3$

Section 9.2 Warm-Up

1. There were 100 people at the opening night of the school's dance presentation. Tickets were $2 per student and $5 per adult. The opening night brought in $520. What linear system could be used to determine how many students and how many adults attended the opening night?

2. During lunch, the cafeteria sold a total of 160 muffins and individual yogurts. The price of each muffin is $1.50 and each container of yogurt is $2.00. The cafeteria collected $273.50. Set up a linear system in order to determine the number of muffins and the number of yogurts sold.

3. Write an algebraic equation for each sentence. The two variables are l for length and w for width.
   a) The length is 1 cm less than double the width.
   b) The width is 5 cm longer than half the length.
   c) The perimeter of a rectangle is 24 cm.

4. Add.
   a) $3x - 5y$ / $5x + 2y$
   b) $40c + 50w$ / $-60c - 60w$

5. Subtract.
   a) $3x - 5y$ / $5x + 2y$
   b) $40c + 50w$ / $-60c - 60w$

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Section 9.3 Warm-Up

1. Solve by graphing on grid paper or using a graphing calculator.

$2x - 3y = -12$

$4x - 9y = -18$

2. Solve by substitution.

$3x + 2y = 5$

$x - 4y = -3$

3. Solve by eliminating x.

$3x + 2y = 7$

$4x + 5y = 14$

4. Solve by eliminating y.

$3x + 2y = 7$

$4x + 5y = 14$

5. Which of these linear systems has no solution?

A $4x - 5y = 10$
$4x - 5y = 8$

B $4x - 5y = 10$
$8x - 10y = 20$

C $4x + 5y = 10$
$4x - 5y = 8$