Name:_____ **TA:_____**

Foundations of Math 10 LG 13 Ver A

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Expectation 1: solve systems of linear equations using the substitution method.

1. Solve this linear system of equations using the method of substitution. (2 marks)

$y = -6x - 100$
$-x + y = 12$

2. Solve this linear system of equations using the method of substitution. (2 marks)

$2x + y = 14$
$3x - 2y = 7$

Expectation 2: solve systems of linear equations using the elimination method.

3. Solve this system of equations using the elimination (addition/subtraction) method: (2 marks)

$$-5x + y = -19$$
$$4x + y = 26$$

4. Solve this system of equations using the elimination (addition/subtraction) method. (2 marks)

$$2x - 3y = 6$$
$$3x + 2y = 8$$

Expectation 3: choose a strategy to solve a problem that involves a linear system.

5. The perimeter of a rectangle is 36 m. The length is 3 m less than twice the width. Create a system of two equations and solve the system using substitution **or** elimination (addition/subtraction). What is the length of the rectangle? (2 marks)

6. Khoi wants to hire a moving van. One company charges $110.00 for the day plus $0.60/km. Another company charges $132.00 for the day plus $0.40/km. Create a system of two equations and solve the system using substitution **or** elimination (addition/subtraction). For what distance will the charges be the same? (2 marks)