**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Unit 13 – Systems of Equations Review**

1. **Solve each systems of equations by graphing.**
2. y = 2x + 4

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

SOLUTION: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. 2x + 4y = -4

y – 1 = $\frac{1}{2}$x

SOLUTION: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **Solve each system of equations using SUBSTITUTION. Show all your work.**
2. y = 2x – 4 Solution: \_\_\_\_\_\_\_\_\_\_\_

– x + 3y = 3

1. x = y + 13 Solution: \_\_\_\_\_\_\_\_\_\_\_

y – x = – 13

1. x = y – 7 Solution: \_\_\_\_\_\_\_\_\_\_\_

x + 5y = –1

1. x + y = 4 Solution: \_\_\_\_\_\_\_\_\_\_\_

y = 7x + 4

1. **Solve each system of equations using ELIMINATION. Show all your work.**
2. –3x +5y=12 Solution: \_\_\_\_\_\_\_\_\_\_\_

 2x –5y = –2

1. x + y = 19 Solution: \_\_\_\_\_\_\_\_\_\_\_

2x + y = –7

1. –4x –2y = –12 Solution: \_\_\_\_\_\_\_\_\_\_\_

 4x + 8y = –24

1. 7x + 2y = 24 Solution: \_\_\_\_\_\_\_\_\_\_\_

8x + 2y = 30

1. **Solve each word problem using systems of equations. Show all your work.**
2. The sum of two numbers is 27. Their difference is 7. Find the two numbers.

Number: \_\_\_\_\_\_\_

Number: \_\_\_\_\_\_\_

1. 215 people attended a basketball game. The admission was $10 for adults and $5 for students. The receipts from the game totaled $2075. How many adults and how many students went to the game?

Adults: \_\_\_\_\_\_\_\_\_

Students: \_\_\_\_\_\_\_

1. The length of a rectangle is three centimeters more than three times the width. If the perimeter of the rectangle is 46 centimeters, find the dimensions of the rectangle.

Width: \_\_\_\_\_\_\_\_\_\_

Length: \_\_\_\_\_\_\_\_\_

1. The sum of two numbers is 82. Their difference is 24. Find the two numbers.

Number: \_\_\_\_\_\_\_

Number: \_\_\_\_\_\_\_

1. **Multiple Choice: Read each question carefully and circle the letter of the correct answer.**

 x – 3y = 9

2x + 3y = 15

1. To solve the following system by elimination, what is the most logical first step?
	1. Solve the 1st equation for x
	2. Solve the 2nd equation for y
	3. Add the equations
	4. Subtract the equations
2. To solve the following system by substitution of x, what is the most logical first step?

2x + y = 6

3x – 2y = 2

* 1. Solve the 1st equation for x
	2. Solve the 2nd equation for y
	3. Add the equations
	4. Subtract the equations
1. If the following system of equations is solved by elimination, what is the value of x?

3x + 5y = 16

8x – 5y = 28

* 1. 4
	2. 5
	3. – 6
	4. 7
1. **Matching: Match each graph with the appropriate solution.**



1. One Solution \_\_\_\_\_\_\_
2. No Solution: \_\_\_\_\_\_\_
3. Infinite Solutions: \_\_\_\_\_\_\_