Linear Systems and Matrices: Pre-Test:

For this unit, my pre-test consists of a mini-quiz with 14 questions. The students will have approximately 20 minutes to complete the pre-test. The main goals are to measure the students understanding of previously taught concepts that they will need for this unit and to see what prior knowledge the students have about the concepts to be taught. After the pre-test, I will lead a short class discussion to address the new unit, the day’s lesson and what the students already know.

Linear Systems and Matrices: Pre-Test

Name

Date Period

For problems 1-4, simplify each expression.

1. 4(3x + 4y) 2. (5x + 9y) + (-5x - 12y)

3. 4x – (2x – 1) = 5 4. -5(6x + 3y)

5. Write the following equation in slope-intercept form:

4x + 7y =14

6. Let 3y + 4x + 3 = -7. If y = 2, what is the value of x?

7. Suppose x + 6y + 17 = 4. If x = 5, what is the value of y?

8. Let x2 + 4y + 5 = 21. If y = 3, what is the value of x?

9. Let 2x − 3y = 4. If x = -4, find y.

10. Solve the system of equations by graphing:

4x − 2y = 8

y = 2/3x

11. Solve the system of equations:

2x + 3y = −3

x + 6y = 12

12. Add the matrices:

3 4 1 1 3 5

-2 5 6 + -7 2 0

0 9 -1 9 4 -5

13. Find the determinant of the matrix:

2 3

4 1

14. Please write down anything you know about systems of equations, graphing equations, and matrices. There is no right or wrong answer here, just a brainstorming activity.

Pre-Test Answers:

1. 12x + 16y
2. -3y
3. x = 2
4. -30x – 15y
5. -4/7x + 2
6. x = -4
7. y = -3
8. 2 or -2
9. y = -4
10. The solution is (3,2).
11. x = -6 and y = 3
12. 4 7 6

-9 7 6

9 13 -6

1. -10
2. Answers will vary by student. Just a brainstorming activity to find out what they already know.

Grading Criteria:

This pre-test is mainly just a way to assess the student’s prior knowledge and review relative concepts.

Questions 1-9 worth 9 points each. Questions 10-13 worth 6 points each. 1 point for name on paper.

A – 93-100

B - 86-92

C – 78-85

D - 70-77

F – below 70