Name_____ Date_____

Systems of Equations Period_____

1. ***Define a system of equations

2. ***Name three ways of solving a system of linear equations

3. ***What is a solution to a system of equations.

4. *If a system of equations has no solution, what can you determine about the lines.

5. ***Write the procedure for solving a linear system by substitution

6. ***Write the procedure for solving a linear system by linear combination.

7. ***How can you determine which method of solving systems to use?

Problems 8 through 14 are ** problems

8. Solve the system by graphing.

$y = 4x + 1$
$y = 2x + 5$

9. Solve the system by graphing

$2x – y = 9$
$4x + y = 15$

10. Solve the system by substitution

$2x + 3y = 13$
$y = 2x – 1$

11. Solve the system by substitution

$3x – 2y = 7$
$y = 3x – 7$

12. Solve the system by linear combination

$x + y = 14$
$x - y = 22$

13. Solve the system by linear combination

$3x + 10y = 2$
$x - 2y = 6$

14. Solve by either substitution or linear combination

$2x + 3y = -4$
$5x - 2y = 9$

Problems 15 through 19 are *

15. The sum of two consecutive even numbers is 62. Find the numbers.

16. Find two numbers whose sum is 114 and difference is 58.

17. One number is four times another numbers, the sum of the numbers is 140. Find the numbers.

18. Estela has twice as many nickels as half-dollars. Their value is $2.40. How many nickels and how many half-dollars does she have?

19. A landscaping company placed two orders with a nursery. The first order was for 13 bushes and 4 trees totaled $487. The second order was for 6 bushes and 2 trees and totaled $232. Write a system of equations to solve this problem. Then, find the cost of one bush and one tree.

20. ***Provide a phone or cell number, email address or some method of contacting a parent or guardian (CHP)