**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Algebra 3-4**

**Systems of Equations Test**

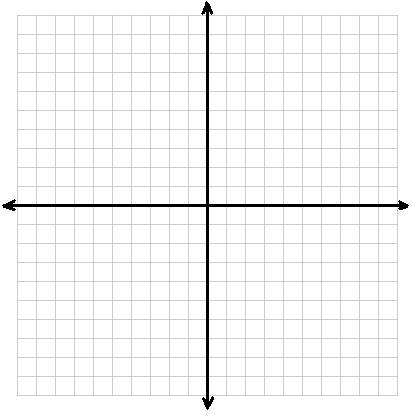
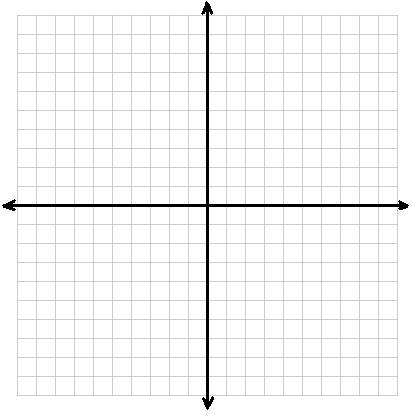
**Level 2**

**\*\*When solving a system of equations be sure to write your solution as an ordered pair or ordered triple!!\*\***

1. Solve the systemS. 2. Solve the system by graphing.

2y = –8x + 10 

y = 2x – 4





3. Solve the system.  3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. **Set up** a system of equations that represents the following situation. Use *c* for cost and *d* for days.

A rental car agency charges a flat fee of $138.00 plus $27.00 per day to rent a certain car. Another agency charges a fee of $47.00 plus $40.00 per day to rent the same car.

4.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Without graphing, decide if each system has *zero, one,* or *infinite* solutions. *Show Work!***

5.  6. 

a. Zero a. Zero

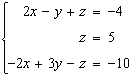
b. One b. One

c. Infinite c. Infinite

**Solve each system. Be sure to clearly state your solution.**

7.  8. 

7.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 8.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9.  10. 

|  |  |
| --- | --- |
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9.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 10.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

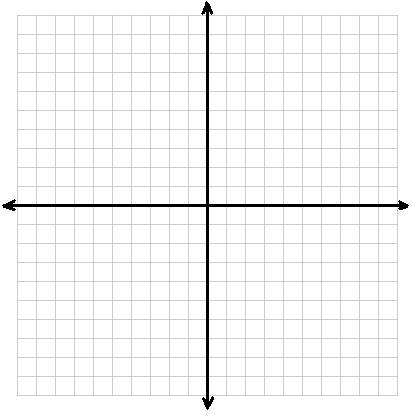
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11. What is element  in matrix A?

A =  11.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

12. Represent the following system with a matrix:  12.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Level 3**

13. Solve the system of inequalities by graphing.



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14. A group of 36 people attended a ball game. There were *twice* as many children as adults in the group. Set up a system of equations that represents the numbers of adults and children who attended the game and solve the system to find the number of adults and the number of children who were in the group.

14.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

15. Solve the system.

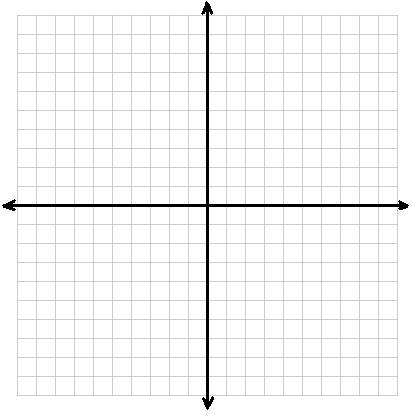


15.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

16. Solve the system.

16.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

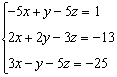
**Level 4**

18. Solve the system of inequalities by graphing.



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19. Solve the system of equations. Show your work where possible.



19.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_