**Algebra 3-4 Unit 2 Assessment**

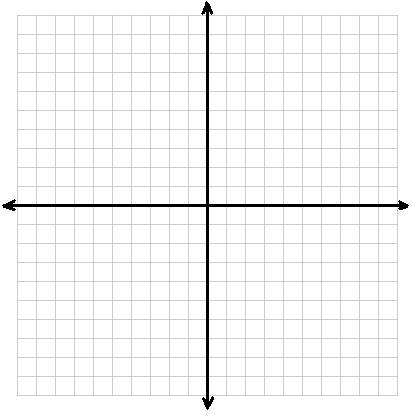
**Systems of Equations**

**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Block: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Level 2** [Remember to CHECK that your answer works in *all* equations!]

1. Graph the inequality. 2. Solve the system.

5x + 2y > 10 



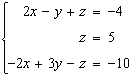
**2. x = \_\_\_\_\_\_\_\_\_ y = \_\_\_\_\_\_\_\_\_**

3. Solve the system. 4. Solve the system.

**3. x = \_\_\_\_\_\_\_\_\_ y = \_\_\_\_\_\_\_\_\_ 4. x = \_\_\_\_\_\_\_\_\_ y = \_\_\_\_\_\_\_\_\_**

5. Solve the system. 6. Solve the system.

**5. x = \_\_\_\_\_\_\_\_\_ y = \_\_\_\_\_\_\_\_\_ 6. x = \_\_\_\_\_\_\_\_\_ y = \_\_\_\_\_\_\_\_\_   
  
 z = \_\_\_\_\_\_\_\_\_**

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7. Solve the system. 8. Solve the system.

**7. x = \_\_\_\_\_\_\_\_\_ y = \_\_\_\_\_\_\_\_\_ 8. x = \_\_\_\_\_\_\_\_\_ y = \_\_\_\_\_\_\_\_\_**

9. What is element  in matrix A?

A =  **9. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

10. Represent the following system with a matrix: 

**10. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Level 3**

11. Solve the system. 12. Solve the system.

2

**11. x = \_\_\_\_\_\_\_\_\_ y = \_\_\_\_\_\_\_\_\_ 12. x = \_\_\_\_\_\_\_\_\_ y = \_\_\_\_\_\_\_\_\_**

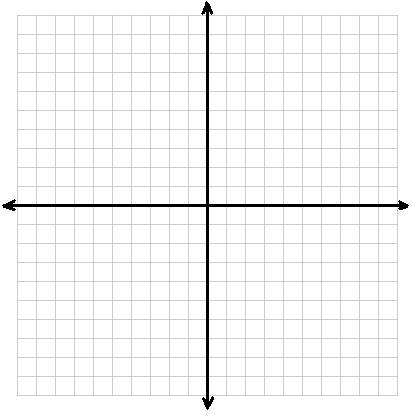
13. Set up a system of equations that represents the following situation. Use *c* for cost and *d* for days. Then explain when it would be better to use each agency.

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.

**13. Equation 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Equation 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
  
 When should you use each one?**

14. Solve the system of inequalities by graphing.

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15. 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.

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

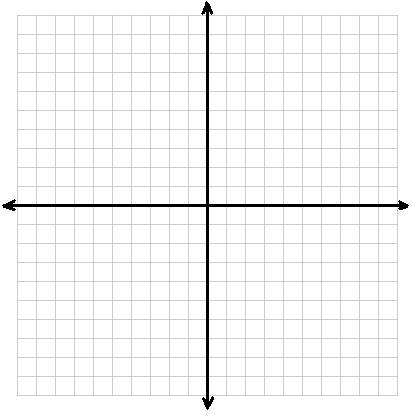
16. Solve the system.



**16. x = \_\_\_\_\_\_\_\_\_ y = \_\_\_\_\_\_\_\_\_   
  
 z = \_\_\_\_\_\_\_\_\_**

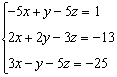
**Level 4**

18. Solve the system of inequalities by graphing.

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19. Solve the system of equations.



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**19. x = \_\_\_\_\_\_\_\_\_ y = \_\_\_\_\_\_\_\_\_   
  
 z = \_\_\_\_\_\_\_\_\_**