

Name: \_\_\_\_\_

Instructor: \_\_\_\_\_

Date: \_\_\_\_\_

Class Time: \_\_\_\_\_

## Unit 5 Module C Notes Sections 16.1 – 16.4, 17.1

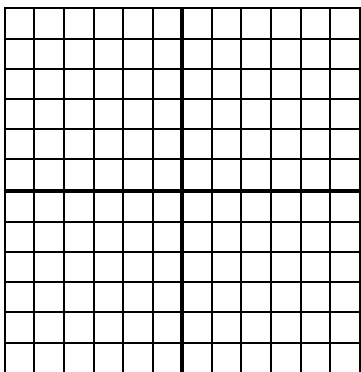
**View the PowerPoint, Videos, or Textbook for Module 5C.**

Vocabulary **Fill in the blanks.**

1. (Section 16.1) If a system of equations has at least one solution then it is a(n) \_\_\_\_\_ system. If it has no solutions then it is a(n) \_\_\_\_\_ system.
2. (Section 16.1) If a system of equations has infinitely many solutions then the equations are \_\_\_\_\_. If it has one solution or no solutions then the equations are \_\_\_\_\_.
3. (Section 16.3) It is convenient to use the \_\_\_\_\_ method to solve a system of equation when a variable has a coefficient of 1.
4. (Section 16.3) It is convenient to use the \_\_\_\_\_ method to solve a system of equation when no variable has a coefficient of 1.

Problems **Show ALL steps.**

1. (Section 16.1) Graphically solve the system of equations  $y - x = 0$  and  $2x + y = 6$ .



2. (Section 16.2) Use Substitution to solve the system  $5x + 6y = 14$  and  $-3y + x = 7$ .

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3. (Section 16.3) Use Elimination to solve the system  $3x - 5y = 11$  and  $4x + 3y = 5$ .
4. (Section 16.4) Walter had to purchase tickets for 11 people in his office to go to a Nationals game. He paid \$449 to buy the 11 tickets. Infield Grandstand seats cost \$44. Right Field Roof seats cost \$37. How many of each kind of ticket did he purchase?
5. (Section 16.4) Suppose your flight from Milan, Italy to Miami, Florida into a headwind of 50 miles per hour takes 11 hours. Your return trip with a tailwind of 50 miles per hours takes 9 hours. Find the distance between Miami and Milan and find the speed of the airplane with no wind.  $D = R * T$

6. (Section 17.1) Graph  $2x - y \leq 6$ .

