Solving Systems of Equations with Graphs

Name:

Date:

Vocabulary Review:
In your own words, define each of the following vocabulary terms.

- System of Equations

- Parallel Lines

- Intersecting Lines

- Coinciding Lines

Apply New Learning:

1. What are the different possible solutions you can have for a system of linear equations?

2. Graphically, what do the different solutions to a system of linear equations look like? Sketch an example graph of each type of solution in the space below.

3. How can you check to see if your solution to the system is correct?

Use your graphing calculator to solve each system of equations for #4–7. Label each system as:

- intersecting lines (one solution),
- parallel lines (no solution), or
- coinciding lines (infinite solutions).

4. $y = 3x$ and $x + 2y = 4$

5. $-x + 2y = -6$ and $3x + 2y = 2$

6. $2x + 3y = 1$ and $4x + 6y = 2$

7. $y - 0.5x = 7$ and $y = 0.5x - 1.5$