

Systems of Equations Homework Day 1 (Graded for Correctness)

Directions: Be sure to show all work, communicate your thought process, and justify your reasoning. Remember to check that your answers are complete, correct, and reasonable. Do not forget to complete the “Throwback” problems! 😊

Tic-Tac-Toe, Show Off What You Know

Choose any row, column, or diagonal to complete. The only requirement for your choice is that you **MUST** use the center box. Then find the activity that corresponds to each box of your choice, and complete it on a separate sheet of paper. Be sure to label your work appropriately, according to the name of the activity. Of course, you may use your notes from class. 😊

CREATE: Create a situation for each requirement.	GRAPH: Solve systems of equations by graphing.	EXPLAIN: Appropriately explain systems of equations and their solutions, according to the guidelines.
EXPLAIN: Appropriately explain systems of equations and their solutions, according to the guidelines.	SOLVE: Solve the three given problems.	CREATE: Create a situation for each requirement.
TRUE OR FALSE: Determine if four statements are true or false. Correct the underlined portion of those that are false.	TRUE OR FALSE: Determine if four statements are true or false. Correct the underlined portion of those that are false.	GRAPH: Solve systems of equations by graphing.

SOLVE

- Complete problems 25, 27, and 29 from page 119 in your textbook. Support your solutions with graphs(on graph paper), and check your solutions algebraically.
- Each box represents the system of equations including the one at the top of its column and to the left of its row. In each box, state how many solutions each graph will have.

	$y = -x + 1$	$y = x - 1$	$y = x$	$y = x$
$2y + 2x = 2$	a. this system has _____ solution(s).	b. this system has _____ solution(s).	c. this system has _____ solution(s).	d. this system has _____ solution(s).
$y = -x$	e. this system has _____ solution(s).	f. this system has _____ solution(s).	g. this system has _____ solution(s).	h. this system has _____ solution(s).

CREATE

1. Create any system of equation that has infinite solutions. Describe how you designed the system.
2. Create any system of equation that has no solutions. Describe how you designed the system.
3. Create any system of equation that has exactly one solution. Describe how you designed the system.

EXPLAIN

1. Explain what the solution to any system of equations represents.
2. Explain how to tell how many solutions a system of equations will have without graphing.
3. Explain how you believe systems of equations may be useful in solving real life problems.

GRAPH

Complete problems 7, 33, and 35 from pages 118-119 in your textbook. Support your solutions with graphs (on graph paper), and check your solutions algebraically.

TRUE OR FALSE

1. Systems of linear equations will never have more than one solution.
2. The only types of solutions for systems of linear equations are infinitely many solutions, one solution, or no solutions.
3. It is possible for a system of equations involving an absolute value function and a linear equation to have exactly three solutions.
4. It is possible for a system of equations involving an absolute value function and a linear equation to have infinitely many solutions.