

Systems of Equations Project

This project is an opportunity for you to creatively show your understanding of how to solve systems of equations. Using the recent word problems for inspiration, you will create a short story in the form of a children's book that incorporates systems of equation problems you create. Be as creative as you'd like, but make sure to set up the word problems so that a reader can understand the problems and their solutions.

Your storybook must include the following:

- ☐ A Title
 - ☐ A cover page with the title and written by: (insert your name)
- ☐ Systems of equations word problems
 - ☐ Option 1: Create one problem and show how to solve it by graphing, substitution, or elimination
 - ☐ Option 2: Create three different problems and solve one using graphing, one by substitution, and one by elimination. Students choosing the Enriched path must take this option.
- ☐ Solutions to the problems you create
 - ☐ Define the variables
 - ☐ Explain how your characters solved each problem (for graphing include how your character(s) identified the y-intercept and slope of both equations and the point of intersection)
 - ☐ Written solutions to each problem including the correct units (i.e. 5 adult tickets, or \$3.25 for a slice of cheese pizza)
- ☐ Characters with a clear storyline
- ☐ Illustrations or clip art
- ☐ Neatly written in pen or typed

Hints: Choose a topic for your storybook that interests you. For example, if you have a favorite restaurant, recently went on a trip with your family, enjoy going to the theater, or play a sport, think about word problems about these topics. Math is everywhere!

Rubric

Category	Skills <i>If the following descriptors are to receive a 5 for the given category.</i>
Algebraic Modeling and Procedures	Correctly applies solving systems of equation word problems by graphing, substitution, and elimination.
Accuracy and Precision	Precisely and accurately executes arithmetic calculations, sketches graphs, and checks the reasonableness of calculations/solutions.
Communication	Clearly and precisely communicates mathematical thinking and ideas in writing, using words, pictures, numbers, and symbols. Shows work and demonstrates thinking. Graphs are labeled. Solution is a complete sentence in context with units.
Preparation & Organization	☐ Completes the project on time ☐ Meets all project requirements: Title, typed or neatly written in pen, includes illustrations, follows the requirements for the problems ☐ A straightedge is used for the graph ☐ Clear storyline with characters ☐ Original word problems (i.e. not taken from a worksheet, internet or other source)

Project Timeline

Task	Due Date	Completed?
Decide on a theme for your story Write 1-3 word problems that fit into your theme Solve the word problem(s) you created and check to make sure your solutions work	Wednesday, October 11	
Write the rest of your story around the problems you created (rough draft)	Friday, October 13	
Put your story in final format (either typed or neatly handwritten in ink) in a book format	Wednesday, October 18	
Add illustrations or clip art Create the cover for your story	Friday, October 20	

Double-check the project requirements		
Project is due at the beginning of class on Friday, October 27		