

Systems of Equations in Real Life

Name: _____ **Date:** _____

LEARNING OBJECTIVE

The student will model and solve a real-world scenario (such as a budget or mixture problem) using a system of equations.

MATERIALS NEEDED

- paper
- pencil
- calculator
- index cards
- play money or coins (optional)

HANDS-ON ACTIVITY

1. Choose a real scenario: planning a lemonade stand, comparing two phone plans, or mixing two snack prices to hit a target average cost.
2. Define your variables clearly in words (e.g., x = number of cups sold, y = total profit) and write two equations that model the scenario.
3. If using the lemonade stand or mixture idea, use play money or coins to physically act out one scenario before solving on paper.
4. Solve your system using substitution or elimination (your choice), showing all algebra steps.
5. Write one full sentence explaining what your numeric solution means in the context of your real scenario.

QUESTIONS

1. What two equations did you write, and what does each variable represent?
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2. What method did you use to solve your system, and why did you choose it?
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3. What is your solution, and what does it mean in real-world terms?
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4. How would your answer change if one of your starting costs or prices doubled?
(Explain in words, no need to resolve.)
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