

Unit 1: Systems of Linear Equations

Day 8: Modelling with Linear Equations

Today we will....

- learn how to use linear systems to model real-life situations

Many kinds of real life situations can be modeled and solved using linear systems. For each of the following systems, define two variables and write the equations that represent the situation.

1. The difference between two numbers is 45. Three times the larger number less five times the smaller number equals 75.

2. Mark's job is to collect money from pop machines. From one machine, he collects a total of 76 dimes and quarters. If the total value is \$13, how many dimes and quarters are there?

3. Hannah won \$2000 in a chess competition. She invested part of it at 9% and the remainder at 10%. If the total interest was \$191 for the first year, how much was invested at each rate?

Practice:
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