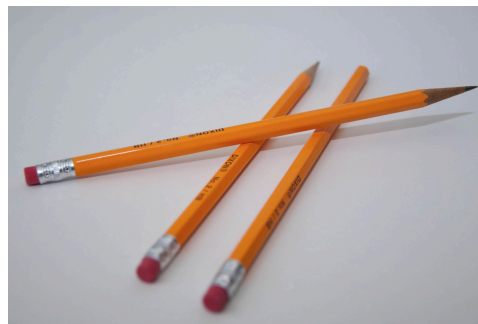


5.9 Can You Get to the Point, Too?



A Solidify Understanding Task

Part 1

In “Shopping for Cats and Dogs,” Carlos found a way to find the cost of individual items when given the purchase price of two different combinations of those items. He would like to make his strategy more efficient by writing it out using symbols and algebra. Help him formalize his strategy by doing the following:

- For each scenario in “Shopping for Cats and Dogs” write a **system of equations** to represent the two purchases.
- Show how your strategies for finding the cost of individual items could be represented by manipulating the equations in the system. Write out intermediate steps symbolically, so that someone else could follow your work.
- Once you find the price of one of the items in the combination, show how you would find the price of the other item.

Part 2

Writing out each system of equations reminded Carlos of his work with solving systems of equations graphically. Show how the following scenario from “Shopping for Cats and Dogs” can be represented graphically, and how the cost of each item shows up in the graphs.

Carlos purchased 6 dog leashes and 6 cat brushes for \$45.00 for Clarita to use while pampering the pets. Later in the summer he purchased 3 additional dog leashes and 2 cat brushes for \$19.00. Based on this information, figure out the price of each item.