# 2.7 Shopping for Cats and Dogs
*A Develop Understanding Task*

Clarita is upset with Carlos because he has been buying
cat and dog food without recording the price of each type
of food in their accounting records. Instead, Carlos has just recorded the total price of each
purchase, even though the total cost includes more that one type of food. Carlos is now trying to
figure out the price of each type of food by reviewing some recent purchases. See if you can help
him figure out the cost of particular items for each purchase, and be prepared to explain your
reasoning to Carlos.

1. One week Carlos bought 3 bags of *Tabitha Tidbits* and 4 bags of *Figaro Flakes* for $43.00.
   The next week he bought 3 bags of *Tabitha Tidbits* and 6 bags of *Figaro Flakes* for $54.00.
   Based on this information, figure out the price of one bag of each type of cat food. Explain
   your reasoning.

2. One week Carlos bought 2 bags of *Brutus Bites* and 3 bags of *Lucky Licks* for $42.50. The
   next week he bought 5 bags of *Brutus Bites* and 6 bags of *Lucky Licks* for $94.25. Based on
   this information, figure out the price of one bag of each type of dog food. Explain your
   reasoning.

3. 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. Explain
   your reasoning.

4. One week Carlos bought 2 packages of dog bones and 4 packages of cat treats for $18.50.
   Because the finicky cats didn't like the cat treats, the next week Carlos returned 3 unopened
   packages of cat treats and bought 2 more packages of dog bones. After being refunded for
   the cat treats, Carlos only had to pay $1.00 for his purchase. Based on this information,
   figure out the price of each item. Explain your reasoning.

5. Carlos has noticed that because each of his purchases have been somewhat similar, it has
   been easy to figure out the cost of each item. However, his last set of receipts has him
   puzzled. One week he tried out cheaper brands of cat and dog food. On Monday he
   purchased 3 small bags of cat food and 5 small bags of dog food for $22.75. Because he
   went through the small bags quite quickly, he had to return to the store on Thursday to buy
   2 more small bags of cat food and 3 more small bags of dog food, which cost him $14.25.
   Based on this information, figure out the price of each bag of the cheaper cat and dog food.
   Explain your reasoning.

Summarize the strategies you have used to reason about the price of individual items in the
problems given above. What are some key ideas that seem helpful?