1-5 Skills Practice: *Use a Problem Solving Plan*   Alg 1

1. **Identify what you know and what you need to find out.**
   You do *not* need to solve the problem.

   a. You are making cookies for a bake sale and need to make enough cookies to fill 24 boxes containing 6 cookies each. How many dozen cookies do you need to make?

   b. The cellular phone plan you signed up for gives you 400 minutes a month for $35 and charges $.15 for each additional minute over 400 minutes. How long can you talk on the phone each month and stay within a budget of $45?

2. **State the formula that is needed to solve the problem.**
   You do *not* need to solve the problem.

   a. You invest $200 into a savings account that earns 2% simple interest. How long will it take to earn $50 in interest?

   b. It takes you half an hour to travel 26 miles to work. What is your average speed?

3. **Sticker Collection:** Your sticker collection consists of 175 stickers. Each sticker is either an animated cartoon character or an animal. There are 43 less stickers that are animated characters than stickers that are animals. Let x be the number of stickers that are animals.
   Which equation correctly models this situation?

   A. $x - 43 = 175$ **B** . $x + (x + 43) = 175$ **C.** $x + (x - 43) = 175$

Explain.

4. **Bookshelf:** You installed a bookshelf on the wall to organize some or your books. The books that you absolutely want on the shelf weigh a total of 6¾ pounds. The bookshelf can handle no more than 9 pounds. You plan on filling the rest of the shelf with your paperbacks that each weigh about 1/8 pound. Assuming you won't run out of room, how many paperback books can .you add to the shelf?

S (Step 1)

W (Step 2)

A (Step 3)

G (Step 4)

5. **Camping:** You are responsible for buying supplies for an upcoming camping trip. You can buy packages of stew that just need water added and then are heated. Each package costs $4.95 and contains enough stew for 2 people. You need to buy enough packages so that you can have stew for 3 days of the trip. How many packages do you need? What is the total cost?

S (Step 1)

W (Step 2)

A (Step 3)

G (Step 4)

6. **Banking:** You are going to open a certificate of deposit that earns simple interest. One bank offers a CD in which you must deposit $500 for 3 years with 2% interest. Another bank offers a CD in which you must deposit $250 for 4 years with 3% interest. Which CD will earn more interest?

S (Step 1)

W (Step 2)

A (Step 3)

G (Step 4)