LESSON 7

Strategies Toolkit

Explore

Greg was playing marbles with his friends.
In the first game, he lost 2 marbles.
In the second game, he lost twice as many as in the first game.
In the last game, he won 8 marbles.
Greg finished with 25 marbles.
How many marbles did he start with? 23

Show *and* Share

Describe the strategy you used to solve the problem.

Connect

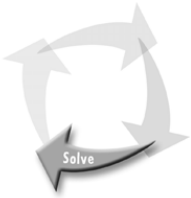
At school, Jasmin bought chocolate milk for $0.75, a hot dog for $1.00, and a bottle of water for $1.07.
On the way home, she found a quarter on the sidewalk.
At the end of the day, she had $1.37 in her wallet.
How much money did Jasmin start with? $3.94

What do you know?
- Jasmin finished with $1.37.
- Jasmin spent $0.75, $1.00, and $1.07.
- Jasmin found $0.25.

Think of a strategy to help you solve the problem.
- You can **work backward**.
- Start with $1.37.
- Subtract what she found.
- Add what she spent.

Strategies

- Make a table.
- Use a model.
- Draw a diagram.
- Solve a simpler problem.
- **Work backward.**
- Guess and check.
- Make an organized list.
- Use a pattern.
- Draw a graph.



- Subtract $0.25 from $1.37.
- Add $1.07, $0.75, and $1.00.
- How much money did Jasmin start with?

How can you check your answer?
How could you have solved this problem another way?

Practice

Choose one of the **Strategies**

1. On Saturday Jo walked her dog for 20 minutes more than she did on Sunday. For both days she walked a total of 1 hour 15 minutes.
   For how long did Jo walk her dog on Saturday? 47.5 minutes

2. All 5 students in Carlo's group saved some money each week toward the cost of a trip. The mean amount of money saved one week by the group was $2.50.
   Suppose each student saved a different amount.
   How much might each have saved that week?
   $2.30, $2.40, $2.50, $2.60, $2.70

3. Ari lines up his hockey cards with the same number of cards in each row. The card in the middle of the array has 5 cards above, below, to the right, and to the left.
   How many cards does Ari have? 121 cards

Reflect

How can working backward help you solve a problem?
Use words and numbers to explain.