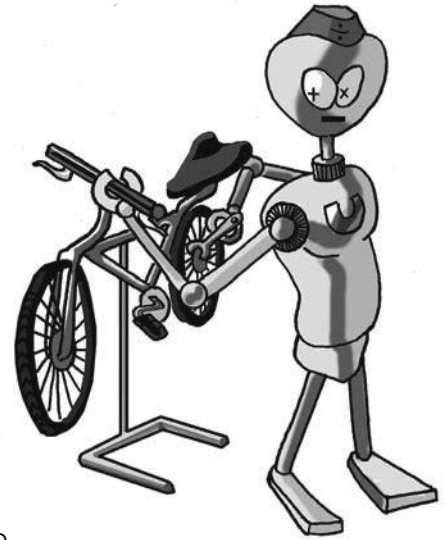


Sample Lesson

Strategy: Work Backward

Some math problems tell you the end of a story. Your task is to discover the beginning of the story. **Work backward.** This strategy shows you how to start with the answer and do the math steps in reverse.



Example:

Gina came home from Mimi’s Mini-Mart with \$2.50. She spent \$1.50 on a small popcorn and \$6.00 on a Super Sub sandwich. How much money did Gina have before she went to Mimi’s Mini-Mart?

Here’s the simple story in reverse order:

- Gina now (\$2.50); buy popcorn (\$1.50); buy sandwich (\$6.00); go to the store with money (\$?).

Here’s the simple story as it happened:



Gina had some money; she spent some on two things and came home with the rest. When you spend money, use subtraction to show it is gone.

The reverse of subtraction is addition. Work backward (or in reverse). Start with the amount Gina had when she came home. Add the amounts she spent. Your sum is what Gina started with before she went to Mimi’s Mini-Mart.

| |
|---|
| \$2.50 |
| 1.50 |
| + 6.00 |
| <hr style="width: 50%; margin-left: auto; margin-right: 0;"/> |
| \$10.00 |

Final answer: Gina had \$10.00 before she went to Mimi’s Mini-Mart.

Work backward to solve the next four problems.

Use the boxes to show your work.

- Swim lessons start at 9:00 a.m. on Monday. It takes Corey 15 minutes to shower and put on some clothes. He needs 5 minutes to eat breakfast. His walk to the pool takes 10 minutes.

What is the latest time that Corey can start to get ready?

1

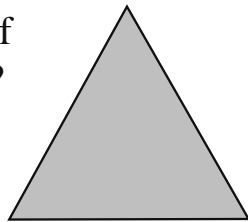
- Ayana and her little sisters love to play in the sandbox at the park. The square sandbox has a **perimeter** (the distance around a shape) of 36 feet.

What is the length of one side of the sandbox?

2

- The perimeter of a triangle is 30 centimeters. It is an **equilateral** triangle, so each side is the same length.

What is the measure of one side of this shape?

3

- How much change should Nia get from a \$10 bill when she spends \$3.50 on a veggie burger?

4