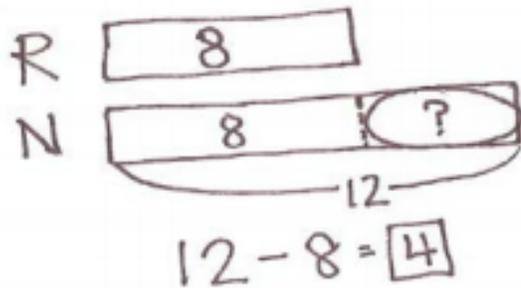




The problem to be solved: Rose wrote 8 letters. Nikil wrote 12 letters. How many more letters did Nikil write than Rose?

The Tape Diagram



Rose's "tape" shows the 8 letters she wrote. Nikil's shows 12 total, with the known amount of 8 marked off. Students learn to solve for the missing part, and to show their answer as a subtraction equation.

Spotlight on Math Strategies:

### Tape Diagrams

Students will use this strategy to solve problems in this module of *A Story of Units*.

*A Story of Units* has several key mathematical strategies that will be used throughout a student's elementary years.

The tape diagram is a powerful model that students can use to solve various types of problems. At this point in first grade, we will introduce it as another way to conceptualize addition and subtraction word problems. Tape diagrams are especially powerful visual models for comparing two quantities, which students will do quite extensively in Module 6. These diagrams are also called "bar models" and consist of simple bar drawings that students make and adjust to fit a word problem. They then use the drawing to discuss and solve the problem.

As students move through the grades, tape diagrams will continue to be used, and later will provide an essential bridge to algebra. Below is a sample word problem from Module 6 solved using a tape diagram to show the parts of the problem.

Sample Problem from Module 6:  
(Example taken from Lesson 7)

Shanika has 6 roses and 7 tulips in a vase. Maria has 4 roses and 8 tulips in a vase.

Who has more flowers? How many more flowers does she have?

