## Sums and Differences to 20
Sums and Differences to 100

In both version 2 and version 3 of this first module of Grade 2, we set the foundation for students to master sums and differences to 20. They will then apply these skills to fluently add one-digit to two-digit numbers up through 100, using place value understanding, properties of operations, and the relationship between addition and subtraction.
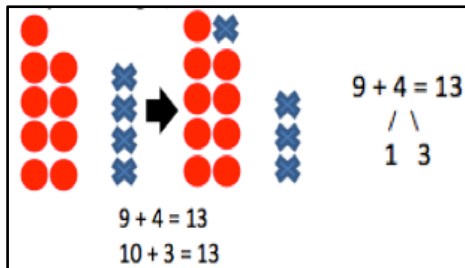
The "make a ten" strategy: note how 4 is decomposed as 1 and 3 in order to make a ten, i.e., 9 + 1 + 3 = 10 + 3.

A new way to count!

Regular	Say Ten
fifty-one	5 tens 1
sixty-seven	6 tens 7
seventy-five	7 tens 5
eighty-four	8 tens 4
ninety-five	9 tens 5

Above, an illustration of the "Say Ten" way of counting, in which students name how many tens are in a number and then say the ones.

What Comes After this Module:
In Module 2, students will engage in activities designed to deepen their conceptual understanding of measurement and to relate addition and subtraction to length. They will use metric units in this module; customary units will be introduced in Module 7.

Terms, Phrases, and Strategies in this Module:

STRATEGY: Make ten and subtract from ten – strategy in which students decompose a number in order to make a ten, thus using simpler, known facts to solve the problem, e.g., $8 + 3 = 8 + 2 + 1$ and $15 - 7 = 10 - 7 + 5 = 3 + 5$

STRATEGY: Say ten counting - e.g., 11 is "1 ten 1," 12 is "1 ten 2," twenty is "2 tens," 27 is "2 tens 7," 35 is "3 tens 5," 100 is "10 tens," 146 is "14 tens 6"

Ten plus: number sentences in which students automatically combine one addend with the group of 10 without having to count, e.g., $10 + 3 = 13$, $30 + 5 = 35$, $70 + 8 = 78$

Number bond: used to explore the part/whole relationships within a given number, e.g., for the number 6:
$5 + 1 = 6$,
$1 + 5 = 6$,
$6 - 1 = 5$,
$6 - 5 = 1$
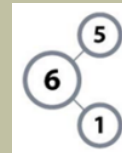
+ How you can help at home:

- Review with your student all the ways to make 10; students will need to have these memorized as we work through this module

- Practice "10 plus" problems, such as 10 + 9, 20 + 8, 40 + 6, 70 + 7, and so on, so that your student becomes very adept at doing them mentally and quickly

Key Common Core Standards:

- *Represent and solve problems involving addition and subtraction*
   - o Use addition and subtraction within 100 to solve one- and two-step word problems

- *Add and subtract within 20*
   - o Fluently add and subtract within 20 using mental strategies

- **Use place value understanding and properties of operations to add and subtract**
   - o Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction

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Welcome to *A Story of Units*!

Each module's parent tip sheet will highlight a new strategy or math model your student will be working on.

Number Bonds are a tool first introduced in earlier years of *A Story of Units*. They illustrate a part-part-whole relationship and are very useful in this module as students use the "make a 10" strategy for both addition and subtraction.
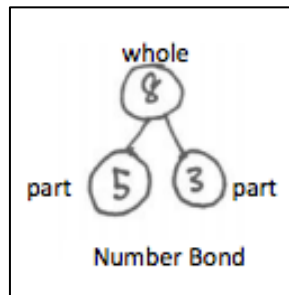
In the above problem, the number bonds illustrate how to decompose the numbers in order to make 80 + 7 + 3 + 2, or 80 + 10 + 2, or 92.

Read on to learn a little bit about *Eureka Math*, the creators of *A Story of Units*:

Eureka Math is a complete, PreK–12 curriculum and professional development platform. It follows the focus and coherence of the Common Core State Standards (CCSS) and carefully sequences the progression of mathematical ideas into expertly crafted instructional modules.

This curriculum is distinguished not only by its adherence to the CCSS; it is also based on a theory of teaching math that is proven to work. That theory posits that mathematical knowledge is conveyed most effectively when it is taught in a sequence that follows the "story" of mathematics itself. This is why we call the elementary portion of *Eureka Math* "*A Story of Units*." The sequencing has been joined with methods of instruction that have been proven to work, in this nation and abroad. These methods drive student understanding beyond process, to deep mastery of mathematical concepts.

The goal of *Eureka Math* is to produce students who are not merely literate, but fluent, in mathematics. Your student has an exciting year of discovering the story of mathematics ahead!

Sample Problem from Module 1:
(Example taken from Module 1, Lesson 8)

Kayla has 21 stickers.

She gives Sergio 7 stickers.

How many stickers does she have left?

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