

Kenmore-Town of Tonawanda UFSD

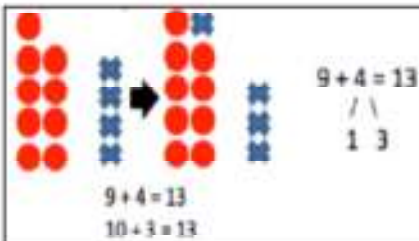
We educate, prepare, and inspire all students to achieve their highest potential



Grade 2 Module 1 Parent Handbook

Sums and Differences to 20

In 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,” 13 is “1 ten 3,” 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 bonds: used to explore the part/whole relationships within a given number, e.g., for the number 6:

$$\begin{aligned} 5 + 1 &= 6, \\ 1 + 5 &= 6, \\ 6 - 1 &= 5, \\ 6 - 5 &= 1 \end{aligned}$$



✚ 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

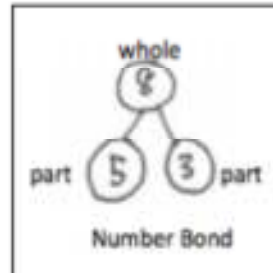
Key Common Core Standards:

- Represent and solve problems involving addition and subtraction**
 - Use addition and subtraction within 100 to solve one- and two-step word problems
- Add and subtract within 20**
 - Fluently add and subtract within 20 using mental strategies
- Use place value understanding and properties of operations to add and subtract**
 - Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction

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.



$$\begin{array}{r} 87 \\ \swarrow \searrow \\ 80 \quad 7 \end{array} + \begin{array}{r} 5 \\ \swarrow \searrow \\ 3 \quad 2 \end{array} = 92$$

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?

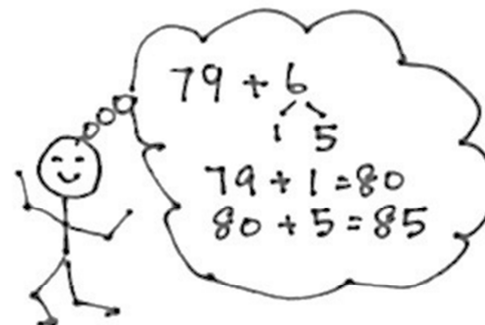
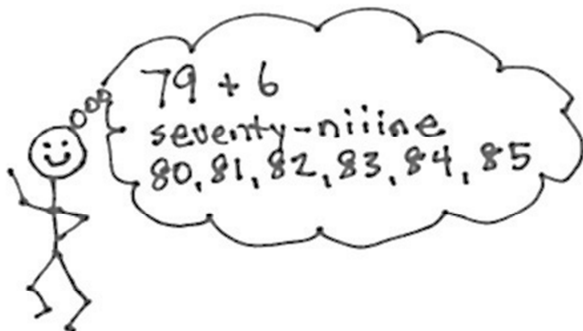
Sums and Differences to 100

OVERVIEW

Module 1 sets the foundation for students to master sums and differences to 20 (2.OA.2). Students subsequently apply these skills to fluently add one-digit to two-digit numbers at least through 100 using place value understanding, properties of operations, and the relationship between addition and subtraction (2.NBT.5). In Grade 1, students worked extensively with numbers to gain fluency with sums and differences within 10 (1.OA.5) and became proficient in counting on (a Level 2 strategy). They also began to make easier problems to add and subtract within 20 and 100 by making ten and taking from ten (Level 3 strategies) (1.OA.6, 1.NBT.4–6)

Level 2: Count On

Level 3: Make an easier problem



In Module 1, students advance from Grade 1's subtraction of a multiple of ten to a new complexity, subtracting single-digit numbers from both multiples of ten (e.g., $40 - 9$) and from any two-digit number within 100 (e.g., $41 - 9$).

$$40 - 9 = 31$$

$$\begin{array}{r} / \backslash \\ 30 \ 10 \end{array}$$

$$10 - 9 = 1$$

$$30 + 1 = 31$$

Topic A's two lessons are devoted solely to the important practice of fluency, the first lesson working within 20 and the second extending the same fluencies to numbers within 100. Topic A reactivates students' Kindergarten and Grade 1 learning as they energetically practice the following prerequisite skills for Level 3 decomposition and composition methods:

- decompositions of numbers within ten² (e.g., $0 + 7$, $1 + 6$, $2 + 5$, and $3 + 4$, all equal seven).
- partners to ten³(e.g., 10 and 0, 9 and 1, 8 and 2, 7 and 3, 6 and 4, 5 and 5, and "I know 8 needs 2 to make ten").
- tens plus sums⁴ (e.g., $10 + 9$, $10 + 8$).

For example, students quickly remember make ten facts. They then immediately use those facts to solve problems with larger numbers (e.g., "I know 8 needs 2 to make 10, so 58 needs 2 to make 6 tens or sixty!"). Lessons 1 and 2 include Sprints that bring back automaticity with the tens plus sums, which are foundational for adding within 100 and expanded form (e.g., "I know $10 + 8 = 18$, so $40 + 8 = 48$ ").

Topic B takes Grade 1's work to a new level of fluency as students make easier problems to add and subtract within 100 by using the number system's base ten structure. The topic begins with students using place value understanding to solve problems by adding and subtracting like units (e.g., "I know $8 - 5 = 3$, so $87 - 50 = 37$ because 8 tens $-$ 5 tens = 3 tens. I know $78 - 5$, too, because 8 ones $-$ 5 ones = 3 ones. I used the same easier problem, $8 - 5 = 3$, just with ones instead of tens!"). Students then practice making ten within 20 before generalizing that strategy to numbers within 100 (e.g., "I know $9 + 6 = 15$, so $79 + 6 = 85$, and $89 + 6 = 95$ ").

The preceding lessons segue beautifully into the new concepts of Topic B, subtracting single-digit numbers from two-digit numbers greater than 20. In Lesson 6, students use the familiar take from ten strategy to subtract single-digit numbers from multiples of ten (e.g., $60 - 8$, as shown below). In Lesson 7, students practice taking from ten within 20 when there is the complexity of some ones in the total (e.g., $13 - 8$, as shown below). In Lesson 8, they then subtract single-digit numbers from 2-digit numbers within 100 when there are also some ones (e.g., $63 - 8$, as shown below).

$$63 - 8 = 55$$

∧

$$53 - 10$$

$$10 - 8 = 2$$

$$53 + 2 = 55$$

Decompose and Subtract From Ten

These strategies deepen place value understandings in preparation for Module 3 and the application of those understandings to addition and subtraction in Modules 4 and 5. Listen to how the language of make ten and take from ten is foundational to the work of later modules:

Module 3: *"I have 10 tens, so I can make a hundred. It's just like I can make a ten when I have 10 ones."*

Module 5: *"When I solve $263 - 48$, I take a ten from 6 tens to make 5 tens and 13 ones. Now, I am ready to subtract in the ones place" (pictured below).*

A hand-drawn diagram illustrating a subtraction strategy. On the left, a large circle contains a subtraction problem:
$$\begin{array}{r} 5 \ 13 \\ 2 \ 6 \ 3 \\ - \quad 4 \ 8 \\ \hline 2 \ 1 \ 5 \end{array}$$
 The numbers 6 and 3 in the top row are crossed out with a large 'X'. Below the problem, the text reads: "I changed a ten for 10 ones." To the right of the circle, a stick figure with a smiling face is pointing towards the subtraction problem.

Note that mastery of sums and differences within 100 is not to be expected in Module 1 but rather by Module 8. Because the amount of practice required by each student to achieve mastery prior to Grade 3 will vary, a motivating, differentiated fluency program needs to be established in these first 2 weeks to set the tone for the year.

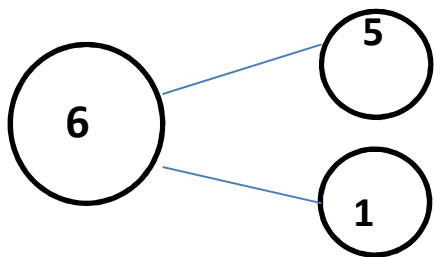
Terminology

New or Recently Introduced Terms

- Make a ten (compose a unit of ten, e.g., $49 + 3 = 40 + 10 + 2$)

Familiar Terms and Symbols

- Addend (one of the numbers being added)
- A ten (a place value unit composed of 10 ones)
- Count on (count up from one addend to the total)
- Expression (e.g., $2 + 1$, $13 - 6$)
- Like units (e.g., frogs and frogs, ones and ones, tens and tens)
- Make ten and take from ten (e.g., $8 + 3 = 8 + 2 + 1$ and $15 - 7 = 10 - 7 + 5 = 3 + 5$)
- Number sentence (e.g., $2 + 3 = 5$, $7 = 9 - 2$, $10 + 2 = 9 + 3$)
- Number bond (see image below)

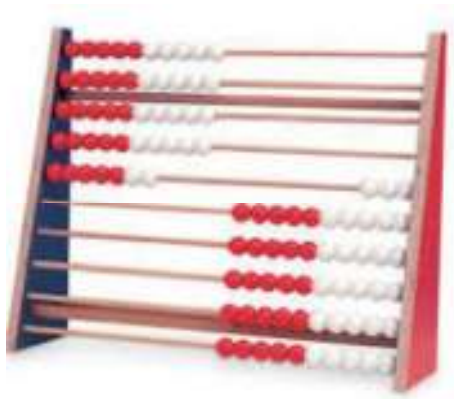


- One (a place value unit, 10 of which may be composed to make a ten)
- Part (e.g., “What is the unknown part? $3 + \underline{\quad} = 8$ ”)
- Partners to 10 (e.g., 10 and 0, 9 and 1, 8 and 2, 7 and 3, 6 and 4, 5 and 5)

- Say Ten counting (see the chart below)

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

- Ten plus facts (e.g., $10 + 3 = 13$, $10 + 5 = 15$, $10 + 8 = 18$)
- Total (e.g., for $3 + 4 = 7$ or $7 - 4 = 3$, seven is the whole, or total)
- 100-bead Rekenrek

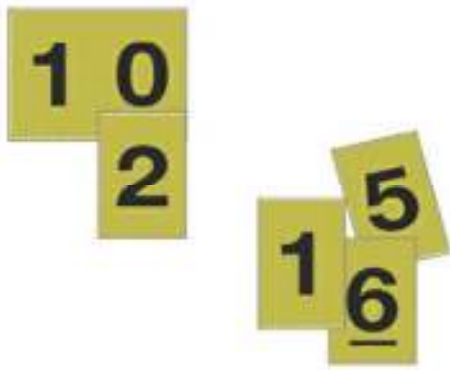


- 5-group column



- Dice

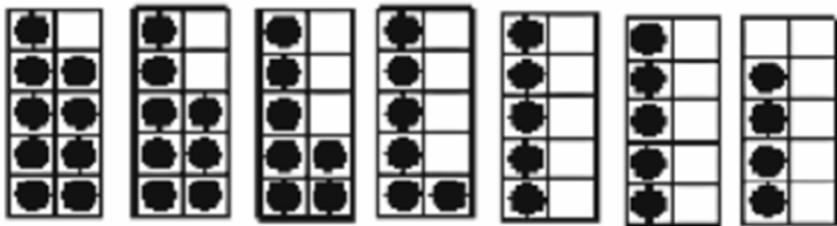
- Hide Zero cards (Lesson 2 Template 1)



- Linking cubes
- Number bond
- Personal white boards
- Place value chart
- Quick ten (vertical line representing a unit of ten)



- Ten-frame cards (Lesson 1 Fluency Template 1)



Grade 2 Module 1 Topic A

Foundations for Fluency with Sums and Differences Within 100

Focus Standard:

2.OA.2 Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.

Instructional Days Recommended: 2

In this first topic of Grade 2, students set the stage for fluency with sums and differences within 100 (2.OA.2) by focusing on three essential skills:

1. Knowing the decompositions of any number within 10 (K.OA.3, 1.OA.6),
2. Knowing partners to 10 (K.OA.4),
3. Knowing teen numbers as $10 + n$ (K.NBT.1, 1.NBT.2b).

Topic A energetically revisits this familiar ground from Kindergarten and Grade 1 at a new pace.

In Lesson 1, targeted fluency work begins with ten-frame flashes where students review ways to make and take from ten (e.g., $9 + 1 = 10$, $10 - 9 = 1$). Students practice Say Ten counting on the Rekenrek (eleven or “ten 1,” pictured to the right), and they become reacquainted with Sprints using a familiar $10 + n$ Sprint. Finally, students decompose ten in different ways by rolling a die and recording number bonds within 10 in “Target Practice.”

Lesson 2 follows a similar path as Lesson 1, with activities now extending to numbers within 100. Students review representations of two-digit numbers with

quick tens and ones (see image to the right) in preparation for upcoming work within the module. Students build confidence and proficiency alternating between regular and Say Ten counting with the support of Hide Zero cards and a 100-bead Rekenrek, saying “6 tens 4” for 64. The final fluency in Lesson 2 focuses on making the next ten (e.g., $57 + 3 = 60$), which is foundational to the mastery of sums and differences to 100 (2.NBT.5).

**The sample homework responses contained in this manual are intended to provide insight into the skills expected of students and instructional strategies used in Eureka Math.*

Lesson 1

Objective: Practice making ten and adding to ten.

Homework Key

1. 10, 10, 9, 1 3. 3, 7, 5, 8

10, 10, 8, 2; 10, 8, 2 2, 6, 4, 9

2. 10, 10, 6, 4; number bond drawn

10, 10, 3, 7; number bond drawn

Work Samples

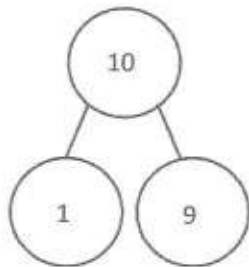
1. Add or subtract. Complete the number bond for each set.

$$9 + 1 = \underline{10}$$

$$1 + 9 = \underline{10}$$

$$10 - 1 = \underline{9}$$

$$10 - 9 = \underline{1}$$

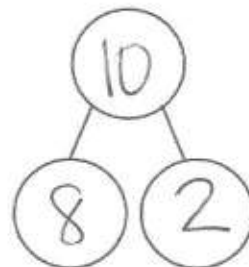


$$8 + 2 = \underline{10}$$

$$2 + 8 = \underline{10}$$

$$10 - 2 = \underline{8}$$

$$10 - 8 = \underline{2}$$



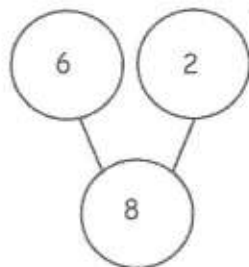
1. Add or subtract. Draw a number bond for (b).

a. $6 + 2 = \underline{8}$

$$2 + 6 = \underline{8}$$

$$8 - 2 = \underline{6}$$

$$8 - 6 = \underline{2}$$

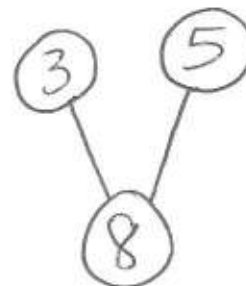


b. $\underline{8} = 3 + 5$

$$\underline{8} = 5 + 3$$

$$\underline{5} = 8 - 3$$

$$\underline{3} = 8 - 5$$



Lesson 2

Objective: Practice making the next ten and adding to a multiple of ten.

Homework Key

1. a. 8, 8, 6, 2

b. 8, 8, 5, 3; number bond drawn

3. 4, 3, 1, 2

10, 20, 70, 80

2. 24, 43, 72, 85

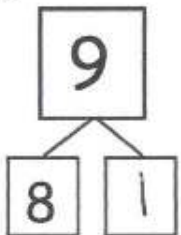
29, 48, 56, 97

Work Samples

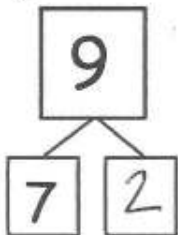
Number Bond Dash

Do as many as you can in 90 seconds. Write the number of bonds you finished here

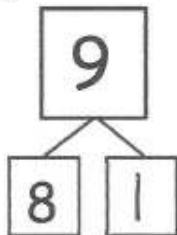
1.



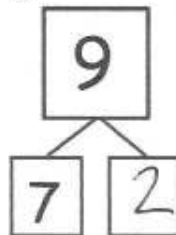
2.



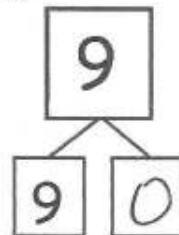
3.



4.



5.



Grade 2 Module 1 Topic B

Initiating Fluency with Addition and Subtraction Within 100

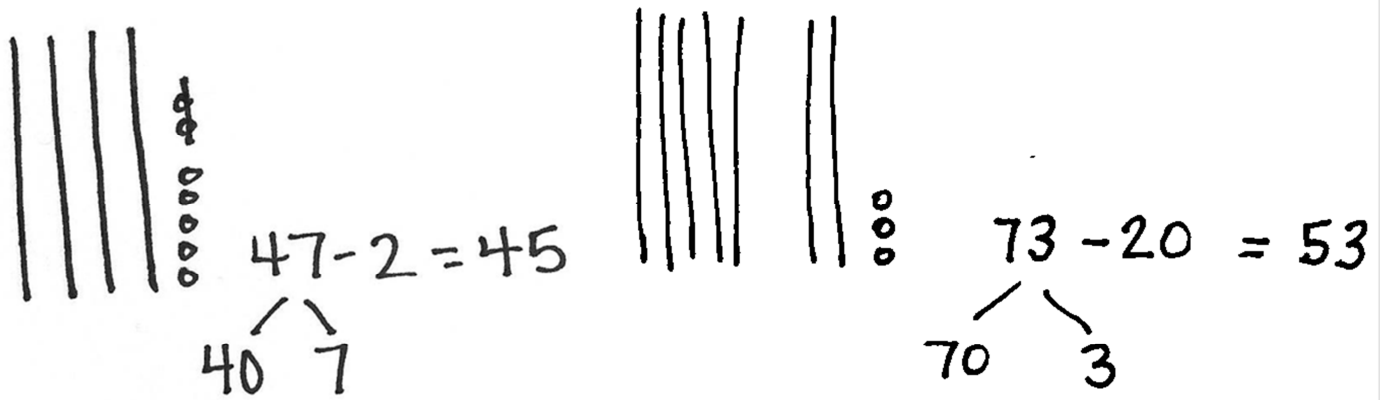
Focus Standards:

- 2.OA.1 Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
- 2.OA.2 Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.
- 2.NBT.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

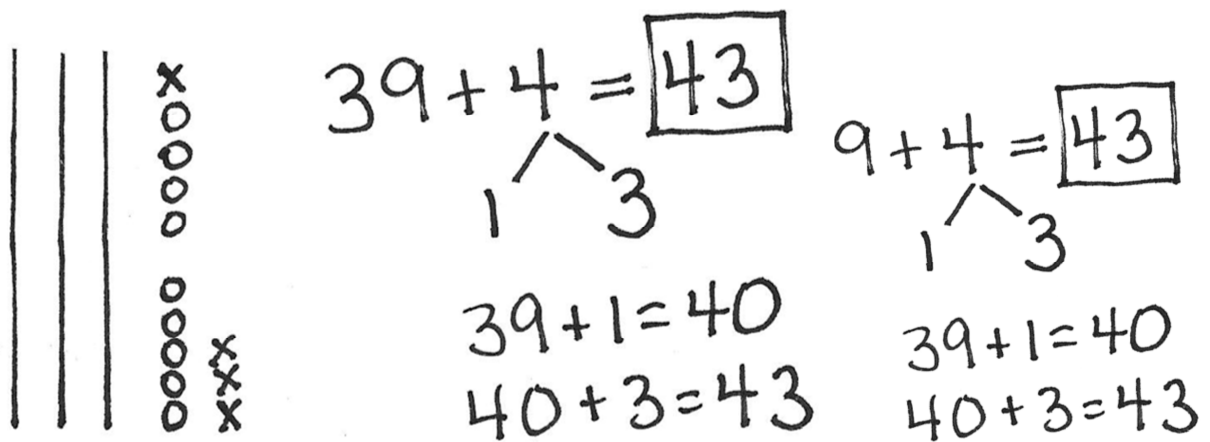
Instructional Days Recommended: 6

Now that students have sharpened their skills, they are ready to solve problems by decomposing and composing units. Lessons 3, 4, 5, and 7 revisit Grade 1 learning at a new pace and without a heavy reliance upon concrete and pictorial models while simultaneously preparing students for the new learning of Lessons 6 and 8, subtracting single-digit numbers from two-digit numbers within 100.

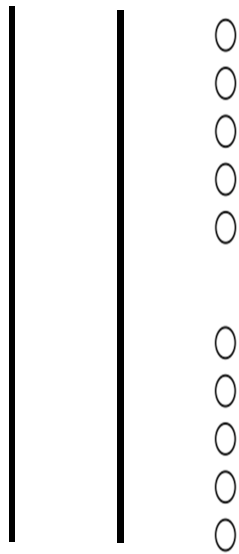
In Lesson 3, students use their understanding of place value to add and subtract like units, by decomposing addends into tens and ones. For example, students apply their knowledge that $7 - 2 = 5$ to solve $47 - 2$ (7 ones – 2 ones = 5 ones) and $73 - 20$ (7 tens – 2 tens = 5 tens).



In Lesson 4, students use the Grade 1 make ten strategy. For example, to add $9 + 4$ (pictured to the right), students decompose 4 as 1 and 3 in order to complete a unit of ten ($9 + 1$) and then add, or compose, the ten with the remaining ones ($10 + 3$). They then apply the same understanding to make the next ten (pictured below) in Lesson 5.



In Lesson 6, students advance their Grade 1 take from ten strategy to subtract single-digit numbers from multiples of 10. For example, $30 - 9$ is solved by decomposing 30 as 20 and 10, taking from ten ($10 - 9$), and composing the parts that are left ($20 + 1$).



Just subtract 9 from 10.
 $10 - 9 = 1$

In Lesson 7, students practice the Grade 1 take from ten strategy within 20. Students repeat the same reasoning from Lesson 6. For example, $11 - 9$ is solved by decomposing 11 as 1 and 10, taking from ten ($10 - 9$), and composing the parts that are left ($1 + 1$).



Just subtract $10 - 9 = 1$.
 Then add the parts that are left. $1 + 1 = 2$

$$\begin{array}{r}
 11 - 9 = 2 \\
 \swarrow \searrow \\
 1 \quad 10 \quad 10 - 9 = 1 \\
 \quad \quad \quad 1 + 1 = 2
 \end{array}$$

Topic B culminates with Lesson 8, where students, as in Lesson 6, extend the take from ten strategy to numbers within 100 (2.NBT.5). For example, to solve $41 - 9$, students decompose 41 as 31 and 10, take from ten ($10 - 9$), and add the parts

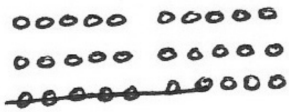
that are left ($31 + 1$). Notice how the student talking below has now generalized the process from the specific problem.

The image shows handwritten mathematical work and a stick figure. On the left, the equation $41 - 9 = 32$ is written. Below it, a bracket decomposes 41 into 31 and 10. To the right of the 10, the equations $10 - 9 = 1$ and $31 + 1 = 32$ are written. To the right of this work is a stick figure with a speech bubble that says: "Just subtract from the ten and then put together the parts that are left!"

Making a ten and taking from ten are strategies that lay the foundation for understanding place value and the base ten system. These Level 3 composition and decomposition methods powerfully pave the way for composing units and decomposing units of ten and a hundred when using the addition and subtraction algorithms in Modules 4 and 5. Furthermore, they exemplify Mathematical Practice 8, as students look for the opportunity to repeat patterns of reasoning both when calculating and in the context of word problems.

In Topic B, Application Problems contextualize learning as students apply strategies to problem solving using the RDW process. Students solve add to, take from, put together/take apart problem types with unknowns in different positions (2.OA.1). They demonstrate their understanding of the situation by representing it with a drawing, number sentence, and statement.

Mary buys 30 stickers. She puts 7 in her friend's backpack. How many stickers does Mary have left?



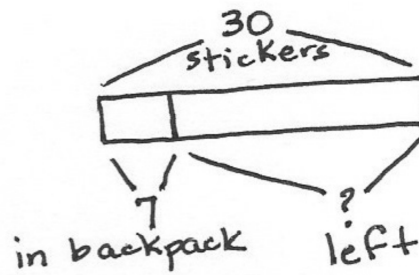
$$30 - 7 = \underline{23}$$

$$20 \begin{matrix} \wedge \\ 10 \end{matrix}$$

$$10 - 7 = 3$$

$$20 + 3 = 23$$

Mary has 23 stickers left.



$$30 - 7 = \underline{23}$$

$$7 + \underline{23} = 30$$

Mary has 23 stickers left.

Many students will enter Grade 2 drawing simple circles or 5-groups to reason through and represent a given situation. Encourage sense making, and accept all reasonable drawings. Drawing a tape diagram to accurately represent story situations comes with time and practice.

**The sample homework responses contained in this manual are intended to provide insight into the skills expected of students and instructional strategies used in Eureka Math.*

Lesson 3


Objective: Add and subtract like units.


Homework Key


- 27, 90, 65, 92
 - 60, 83, 65, 66
 - 70, 71, 39, 75
 - 40, 45, 75, 35
- 49
 - 94
 - 47
 - 78
- 19, 19
 - 34, 33
 - 96, 96
 - 47, 57


Work Samples


1. Solve.

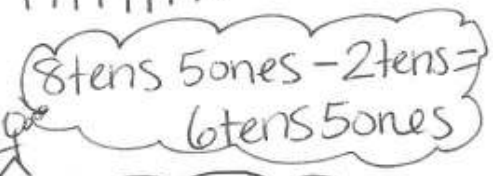
a. $20 + 7 = \underline{27}$ 

b. $80 - 20 = \underline{60}$ 

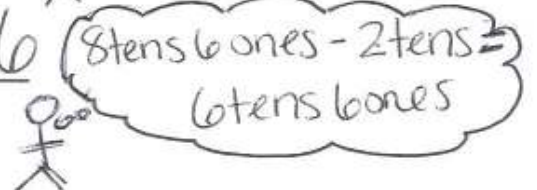
$20 + 70 = \underline{90}$ 
2 tens + 7 tens = 9 tens

$85 - 2 = \underline{83}$ 

$62 + 3 = \underline{65}$ 

$85 - 20 = \underline{65}$ 
8 tens 5 ones - 2 tens = 6 tens 5 ones

$62 + 30 = \underline{92}$ 
6 tens 2 ones + 3 tens = 9 tens 2 ones

$86 - 20 = \underline{66}$ 
8 tens 6 ones - 2 tens = 6 tens 6 ones

c. $30 + 40 = \underline{70}$

d. $70 - 30 = \underline{40}$

$31 + 40 = \underline{71}$

$75 - 30 = \underline{45}$

$35 + 4 = \underline{39}$

$78 - 3 = \underline{75}$

$45 + 30 = \underline{75}$

$75 - 40 = \underline{35}$

Lesson 4

Objective: Make a ten to add within 20.

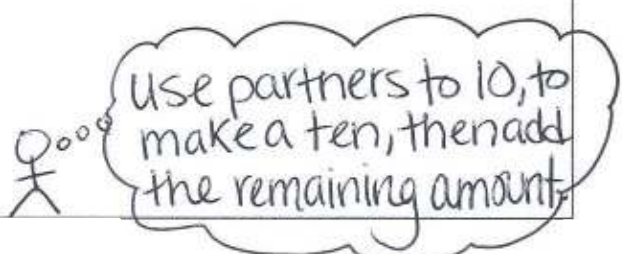
Homework Key

- 12
- 16
- 12
- 14
- 13
- 15
- 16
- 17

9. Answer provided
 $10 + 3 = 13$ and $7 + 6 = 13$
 $10 + 7 = 17$ and $9 + 8 = 17$
 $10 + 5 = 15$ and $9 + 6 = 15$
 $4 + 10 = 14$ and $6 + 8 = 14$
10. 13

Work Samples

Solve.

<p>1. $8 + 4 = \underline{12}$</p> <p>$\begin{array}{r} \\ 2 \\ \hline \end{array}$</p> <p>$8 + 2 = 10$ $10 + 2 = 12$</p>	<p>2. $9 + 7 = \underline{16}$</p> <p>$\begin{array}{r} \\ 1 \\ \hline \end{array}$</p> <p>$9 + 1 = 10$ $10 + 6 = 16$</p>
<p>3. $9 + 3 = \underline{12}$</p> <p>$\begin{array}{r} \\ 1 \\ \hline \end{array}$</p> <p>$9 + 1 = 10$ $10 + 2 = 12$</p>	<p>4. $8 + 6 = \underline{\quad}$</p> <p> Use partners to 10, to make a ten, then add the remaining amount.</p>

Lesson 5

Objective: Make a ten to add within 100.

Homework Key

1. a. 12
- b. 34
- c. 56
- d. 65
- e. 22
- f. 54
- g. 64
- h. 86

2. a. 72
- b. 93
- c. 65
- d. 85

3. 35 students; RDW approach used

Lesson 5 (continued)

Work Samples

Name _____ Date _____

1. Solve.

Use the make ten strategy.

<p>a. $9 + 3 = \underline{12}$</p> <p>$\begin{array}{c} \wedge \\ 1 \quad 2 \end{array}$</p> <p>$9 + 1 = 10$ $10 + 2 = 12$</p>	<p>b. $29 + 5 = \underline{34}$</p> <p>$\begin{array}{c} \wedge \\ 1 \quad 4 \end{array}$</p> <p>$29 + 1 = 30$ $30 + 4 = 34$</p>
<p>c. $49 + 7 = \underline{56}$</p> <p>$\begin{array}{c} \wedge \\ 1 \quad 6 \end{array}$</p> <p>$49 + 1 = 50$ $50 + 6 = 56$</p>	<p>d. $59 + 6 = \underline{65}$</p> <p>$\begin{array}{c} \wedge \\ 1 \quad 5 \end{array}$</p> <p>$59 + 1 = 60$ $60 + 5 = 65$</p>
<p>e. $18 + 4 = \underline{22}$</p> <p>$\begin{array}{c} \wedge \\ 2 \quad 2 \end{array}$</p> <p>$18 + 2 = 20$ $20 + 2 = 22$</p>	<p>f. $48 + 6 = \underline{54}$</p> <p>$\begin{array}{c} \wedge \\ 2 \quad 4 \end{array}$</p> <p>$48 + 2 = 50$ $50 + 4 = 54$</p>
<p>g. $58 + 6 = \underline{64}$</p> <p>$\begin{array}{c} \wedge \\ 2 \quad 4 \end{array}$</p> <p>$58 + 2 = 60$ $60 + 4 = 64$</p>	<p>h. $78 + 8 = \underline{86}$</p> <p>$\begin{array}{c} \wedge \\ 2 \quad 6 \end{array}$</p> <p>$78 + 2 = 80$ $80 + 6 = 86$</p>

Lesson 6

Objective: Subtract single-digit numbers from multiples of 10 within 100,

Homework Key

1. Answer provided

30, 10

40, 10

60, 10

50, 10

70, 10

2. 9

6

1

3

8

5

3. a. Answer provided

b. 21

c. 32

d. 42

e. 53

f. 63

g. 74

h. 85

4. Drawings will vary; 26

Work Samples

1. Take out ten.

$\begin{array}{c} 30 \\ / \quad \backslash \\ 20 \quad 10 \end{array}$	$\begin{array}{c} 40 \\ / \quad \backslash \\ 30 \quad 10 \end{array}$	$\begin{array}{c} 50 \\ / \quad \backslash \\ 40 \quad 10 \end{array}$
$\begin{array}{c} 70 \\ / \quad \backslash \\ 60 \quad 10 \end{array}$	$\begin{array}{c} 60 \\ / \quad \backslash \\ 50 \quad 10 \end{array}$	$\begin{array}{c} 80 \\ / \quad \backslash \\ 70 \quad 10 \end{array}$

Lesson 6 (continued)

3. Solve.

a. $20 - 9 = \underline{11}$

$$\begin{array}{r} / \quad \backslash \\ 10 \quad 10 \end{array}$$

$$10 - 9 = 1$$

$$20 + 1 = 21$$

b. $30 - 9 = \underline{21}$

$$\begin{array}{r} / \quad \backslash \\ 20 \quad 10 \end{array}$$

$$10 - 9 = 1$$

$$20 + 1 = 21$$

Decompose 30 as 20 and 10. Subtract (10 - 9) and compose the parts that are left, 20 + 1.

4. Show how $10 - 4$ helps you solve $30 - 4$.

$$\begin{array}{r} / \quad \backslash \\ 20 \quad 10 \end{array}$$

$$10 - 4 = 6$$

$$20 + 6 = 26$$

Lesson 7

Objective: Take from 10 within 20.

Homework Key

1. Answer provided

4, 10

8, 10

3, 10

6, 10

9, 10

2. 8

3

4

5

2

1

3. a. 5; 5

b. 7

c. 6

d. 4

4. 7

5. Lucy has \$6 left.

Lesson 7 (continued)

Work Samples

1. Take out ten.

$\begin{array}{c} 17 \\ \wedge \\ 7 \quad 10 \end{array}$	$\begin{array}{c} 14 \\ \wedge \\ 4 \quad 10 \end{array}$	$\begin{array}{c} 18 \\ \wedge \\ 8 \quad 10 \end{array}$
$\begin{array}{c} 13 \\ \wedge \\ 3 \quad 10 \end{array}$	$\begin{array}{c} 16 \\ \wedge \\ 6 \quad 10 \end{array}$	$\begin{array}{c} 19 \\ \wedge \\ 9 \quad 10 \end{array}$

2. Solve.

$10 - 2 = \underline{\quad}$	$10 - 7 = \underline{\quad}$	$10 - 6 = \underline{\quad}$
$10 - 5 = \underline{\quad}$	$10 - 8 = \underline{\quad}$	$10 - 9 = \underline{\quad}$

3. Solve.

<p>a. $14 - 9 = \underline{5}$</p> $\begin{array}{c} \wedge \\ 4 \quad 10 \end{array}$ <p style="text-align: right;">$10 - 9 = 1$ $1 + 4 = \underline{5}$</p>	<p>b. $15 - 8 = \underline{7}$</p> $\begin{array}{c} \wedge \\ 5 \quad 10 \end{array}$ <p style="text-align: right;">$10 - 8 = 2$ $2 + 5 = 7$</p>
<p>c. $13 - 7 = \underline{6}$</p> $\begin{array}{c} \wedge \\ 3 \quad 10 \end{array}$ <p style="text-align: right;">$10 - 7 = 3$ $3 + 3 = 6$</p>	<p>d. $12 - 8 = \underline{4}$</p> $\begin{array}{c} \wedge \\ 2 \quad 10 \end{array}$ <p style="text-align: right;">$10 - 8 = 2$ $2 + 2 = 4$</p>

Lesson 8

Objective: Take from 10 within 100.

Homework Key

1. Answer provided

24, 10

48, 10

75, 10

67, 10

86, 10

2. 9

5

8

6

3

2

3. a. 6

b. 7

c. 8

d. 7

e. 35

f. 48

g. 66

h. 83

4. Emma gave Jack 9 markers.

Work Samples

1. Take out ten.

$\begin{array}{c} 26 \\ \wedge \\ 16 \quad 10 \end{array}$	$\begin{array}{c} 34 \\ \wedge \\ 24 \quad 10 \end{array}$	$\begin{array}{c} 58 \\ \wedge \\ 48 \quad 10 \end{array}$
$\begin{array}{c} 85 \\ \wedge \\ 75 \quad 10 \end{array}$	$\begin{array}{c} 77 \\ \wedge \\ 67 \quad 10 \end{array}$	$\begin{array}{c} 96 \\ \wedge \\ 86 \quad 10 \end{array}$

2. Solve.

$10 - 1 = \underline{\quad}$	$10 - 5 = \underline{\quad}$	$10 - 2 = \underline{\quad}$
$10 - 4 = \underline{\quad}$	$10 - 7 = \underline{\quad}$	$10 - 8 = \underline{\quad}$

3. Solve.

<p>a.</p> $\begin{array}{c} 13 - 7 = \underline{6} \\ \wedge \\ 3 \quad 10 \end{array}$ <p>Just subtract $10 - 7 = 3$. Then add the parts that are left, $3 + 3 = 6$.</p>	<p>b.</p> $15 - 8 = \underline{\quad}$
<p>c.</p> $14 - 6 = \underline{\quad}$	<p>d.</p> $16 - 9 = \underline{\quad}$