

# LETTER HOME

## Adding Larger Numbers

Date: \_\_\_\_\_

Dear Family Member:

To be able to compute, students need to have flexibility with our number system. In this unit, students build on their understandings of place value to develop strategies and methods to add multidigit numbers. Students use this understanding to invent and learn a variety of strategies to solve problems. They also learn estimation strategies to check the reasonableness of their answers and start to analyze problems to identify the most efficient strategy for solving it.

You can help your child with adding multidigit whole numbers using the following ideas:

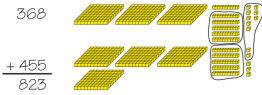
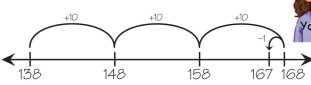
**Read Together.** The following books compliment the content of this unit and can be used to talk about addition.

- *The 500 Hats of Bartholomew Cubbins* by Dr. Seuss
- *Henry Huggins* by Beverly Cleary
- *A Million Fish . . . More or Less* by Patricia McKissack

**Estimate Sums.** Ask your child to estimate the cost of two or three items on your grocery bill.

**Strategy Menus.** Encourage your child to use the Addition Strategies Menu created and referenced in this unit as they are working. The following menu can be found in the *Student Guide* Reference section.

### Addition Strategies Menu 3 digits

<p><b>Using Base-Ten Pieces</b></p>  <p>Trade 7 flats, 11 skinnies and 13 bits for 8 flats, 2 skinnies, and 3 bits</p> <p><i>Peter</i></p>	<p><b>Finding Friendly Numbers</b></p> <p><math>138 + 29</math></p> <p><math>140 + 30 = 170</math> 170 is a reasonable estimate</p> <p><i>Levi</i></p>
<p><b>Using Expanded Form</b></p> <p><math>368 = 300 + 60 + 8</math> <math>+ 455 = 400 + 50 + 5</math> <math>700 + 110 + 13 = 823</math></p> <p><i>Tara</i></p>	<p><b>Number Line or Counting On</b></p> <p><math>138 + 29</math></p> <p><math>138 + 30 - 1 = 167</math></p>  <p><i>Yolanda</i></p>
<p><b>Using the All-Partials Method</b></p> <p><math display="block">\begin{array}{r} 368 \\ + 455 \\ \hline 700 \\ 110 \\ 13 \\ \hline 823 \end{array}</math></p> <p><i>Josh</i></p>	<p><b>Your Own Strategy</b></p>
<p><b>Using the Compact Method</b></p> <p><math display="block">\begin{array}{r} \phantom{1} \\ 368 \\ + 455 \\ \hline 823 \end{array}</math></p> <p><i>Julia</i></p>	

**Play the Digits Game.** Play the Digits Game as a family. A player chooses a playing board that is a template for an addition problem. Cards are drawn one at a time from a deck of 0-9 Digit Cards. After each draw, players write a digit in a box on the playing board trying to find the largest sum correctly. Directions are in Lesson 5 in the *Student Activity Book*.

## Math Facts and Mental Math

This unit continues the review of the subtraction facts and development of the multiplication facts. Help your child using the activities below.

**Subtraction Facts.** Students begin a review of all the subtraction facts to maintain and increase proficiency and to learn to apply subtraction strategies to larger numbers.

Unit	Groups	Facts	Strategies Used	Focus
2	1	12 – 9, 12 – 10, 13 – 9, 13 – 10, 13 – 4, 15 – 9, 15 – 10, 15 – 6, 19 – 10,	Using Tens Thinking Addition	Development of mental strategies and number sense
	2	14 – 10, 14 – 9, 14 – 5, 17 – 10, 17 – 9, 11 – 9, 16 – 9, 16 – 7, 16 – 10		
3	3	10 – 4, 9 – 4, 11 – 4, 10 – 8, 11 – 8, 9 – 5, 10 – 6, 11 – 6, 11 – 5,	Making Tens Thinking Addition	
	4	10 – 7, 9 – 7, 11 – 7, 10 – 2, 9 – 2, 9 – 3, 10 – 3, 11 – 3, 9 – 6		
4	5	7 – 3, 7 – 5, 7 – 2, 11 – 2, 8 – 6, 5 – 3, 8 – 2, 4 – 2, 5 – 2,	Counting Thinking Addition	
	6	6 – 4, 6 – 2, 13 – 5, 8 – 5, 8 – 3, 13 – 8, 12 – 8, 12 – 4, 12 – 3		
5	7	14 – 7, 14 – 6, 14 – 8, 12 – 6, 12 – 7, 12 – 5, 10 – 5, 13 – 7, 13 – 6,	Using Doubles Thinking Addition	
	8	15 – 7, 16 – 8, 17 – 8, 18 – 9, 18 – 10, 8 – 4, 7 – 4, 6 – 3, 15 – 8		
6		Review all		Use strategies fluently
7		Review Groups 1–4		
8		Review Groups 5–8		

**Figure 1:** Development of subtraction facts in Grade 3

You can help your child review these facts using the flash cards the teacher sends home or by making a set of flash cards from index cards or scrap paper. Study the facts in small groups each night. As your child goes through the flash cards, put the cards into three stacks: Facts I Know Quickly, Facts I Can Figure Out, and Facts I Need to Learn.

For the Facts I Need to Learn, work on strategies for figuring them out.

For the Facts I Can Figure Out, use the flash cards to practice the facts for fluency.

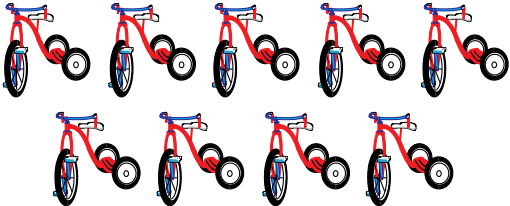
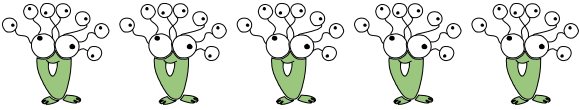
For the Facts I Know Quickly, help your child use strategies to solve problems like these using mental math: 110–4 (practices 10–4), 215–7 (Practices 15–7), 310–12, (practices 10–2)

See the Letter Home in Units 2–5 for more specific examples and strategies.

**Multiplication Facts.** Students work on developing number sense for the multiplication facts for the 9s in this unit. This will help them remember the facts as they develop proficiency. Ask your child to write a story, draw a picture, and complete number sentences for one or two facts each night. Follow these examples:

**Example:**  $3 \times 9 = \square$

**Example:**  $9 \times \square = 45$

<p>There are 3 wheels on each of 9 tricycles. There are 27 wheels.</p>  <p>3 wheels <math>\times</math> 9 tricycles = 27 wheels</p>	<p><math>9 \times \square = 45</math></p>  <p>Each monster has 9 eyes. If there are 45 eyes on the monsters there are 5 monsters.</p>
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Thank you for taking time to talk with your child about what he or she is doing in math.

Sincerely,