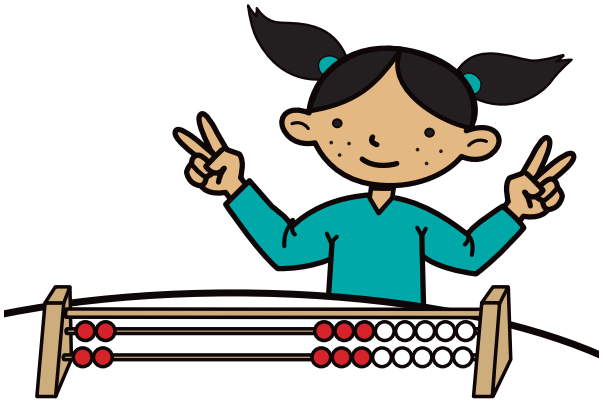
Bridges in Mathematics
Grade 1 Unit 3

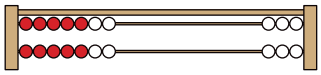
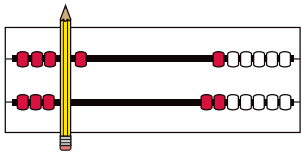
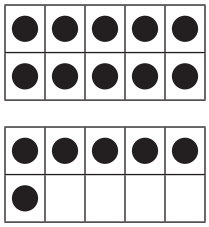
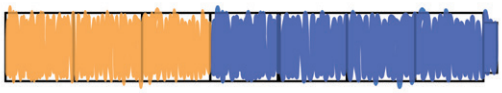
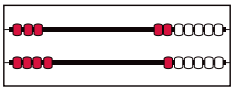
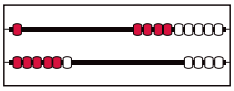
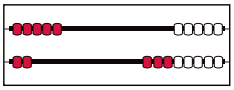
Adding, Subtracting, Counting & Comparing



In this unit, your student will:

- Practice efficient strategies to add and subtract within 10 and within 20
- Solve addition and subtraction word problems
- Compare quantities between 0 and 12
- Build an understanding of place value with tens and ones

Your student will practice these skills by solving problems such as these:

PROBLEM	COMMENTS
Using doubles How many beads can you see on the left?  The first number rack shows 7 + 7 as 2 rows of 7 beads.  The second number rack shows 4 + 3. Students can see this as a double 3 and 1 more: 3 + 3 + 1.	**Doubles facts** (1 + 1, 2 + 2 … 10 + 10) When a number is added to itself, it's called a double. Students notice things that come in pairs: car wheels, insect legs, their own eyes, hands, and feet. Doubles are one of the first fact sets students learn. Doubles facts can help students with combinations like 6 + 7. This problem can be thought of as 6 + 6 + 1. Doubles can also be used to solve related subtraction facts. If students know that 5 + 5 = 10, they can use this fact to solve 10 – 5 = 5. Later, students can use doubles to solve larger combinations, such as 50 + 50, 500 + 500, 100 – 50, and 1,000 – 500.
Adding 10 and more Find the sum. The number rack (shown in the previous problem), dimes & pennies, and 10-frames (shown here) are used as models for visualizing 10 and more facts. **10** **+ 6** 	**10 and more facts** (10 + 1, 10 + 2 … 10 + 9) When 10 is added to a single digit number, it's called a *10 and more* fact. Ten and more facts help students understand that the teen numbers, 11–19, are made up of a ten and some more ones. Knowing that quantities greater than 10 can be grouped and counted by tens and ones is essential to understanding place value.
Color in the Unifix cubes in different ways to make 7. Write an equation to match each Unifix cube train. **a**  3 + 4 = 7 **b**  4 + 2 + 1 = 7	The visual models used in Bridges helps students "see" numbers inside of larger numbers. Students use 5 as an anchor or use doubles facts to break apart numbers in more than one way. This increases their flexibility and fluency. 7 = 3 + 4  7 = 1 + 6 or 1 + 5 + 1  7 = 5 + 2 

Frequently Asked Questions About Unit 3

Q: Why are students spending time learning strategies? Why not just memorize the addition and subtraction facts?

A: Bridges develops students' fluency with math facts by equipping them with strategies that give them a solid understanding of addition and subtraction. Visual models like the number rack, 10-frames, and cubes help students create a picture of the quantity they "see" in their mind's eye. These strategies enhance number sense, so your student can work flexibly and accurately as a problem solver.

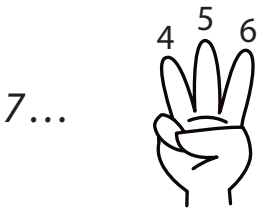
Q: My student is using fingers to solve the problems. Is this OK?

A: Fingers are a good visual model for helping students understand numbers between 1 and 10. They are also useful when counting on to add or counting back to subtract. Counting strategies require students to keep track of the number of forward or backward counts, and many use their fingers to help. As children learn other strategies and commit facts to memory, they become confident in their answers, and their reliance on fingers diminishes.

5 + 4

Student *5 ... 6, 7, 8, 9. The answer is 9.*

7 – 3



Student *7 ... 6, 5, 4. The answer is 4.*

Q: How can I support my student's learning?

A: As your student solves math problems, encourage them to explain their thinking. Ask questions such as, "What did you notice?," "How did you solve that problem?, and "Is there another way you could have solved it?" These questions can help students share their reasoning and practice using strategies they have learned at school. Remember, there are often many valid ways to approach each problem.

To further support your student in learning mathematics, you can:

- Visit mathathome.mathlearningcenter.org and work through some or all of the activities in Grade 1: Set 3 together. These activities complement the learning that takes place in the classroom during Unit 3 and provide fun ways to engage in mathematical thinking. This set also includes digital versions of games that your student has learned at school, such as Double Plus or Minus 1, Cats & Mice, and Fifty or Bust!
- Visit apps.mathlearningcenter.org and invite your child to explore the Number Rack app. Throughout this unit, students use physical number racks in the classroom.
- Read some of the following books aloud with your student. Listen as they make connections between the ideas in these picture books and the work they are doing in math:
  - *Equal Schmequal* by Virginia Kroll, illustrated by Philomena O'Neill
  - *Double the Ducks* by Stuart J. Murphy, illustrated by Valeria Petrone
  - *How Many Feet in the Bed?* by Diane Johnston Hamm, illustrated by Kate Salley Palmer
  - *Martha Blah Blah* by Susan Meddaugh
  - *Two of Everything* by Lily Toy Hong
  - *Too Many Mangos* written by Tammy Paikai, illustrated by Don Robinson