Whole Number Operations and Measurement and Data

In Unit 7 children revisit combinations of 10 and answer questions like: "What must I add to 4 to get to 10?" They extend this idea to larger numbers and answer questions like: "What must I add to 47 to get to 50?" and "What must I add to 28 to get to 40?"



I need to add a number to 28 to get to 40.

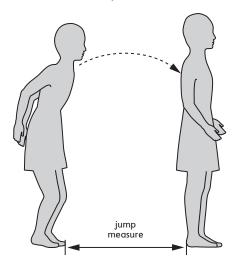
What number, added to 8, will give me 10?

It's 2, so 28 + 2 = 30. What number, added to 30, will give me 40? It's 10, because 30 + 10 = 40.

Finally, 2 + 10 = 12, so I have to add 12 to get to 40.

Children also discuss strategies for solving addition problems that have more than two addends, such as 14 + 2 + 6 + 12.

In later lessons in this unit, children use two length units—meters and yards—to measure longer lengths and distances, and they develop personal references for these units to use when estimating lengths. Children also collect real-life data and display it in tables and graphs. For example, children collect data by measuring the lengths of their standing jumps. Then they display their data on a line plot.



Please keep this Family Letter for reference as your child works through Unit 7.

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Vocabulary Important terms in Unit 7:

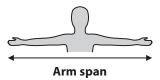
multiple of 10 A product of 10 and a counting number. The multiples of 10 are 10, 20, 30, 40, and so on.

personal reference A convenient approximation for a standard unit of measurement. *For example:* For many people the distance from the tip of the thumb to the first joint is approximately 1 inch.

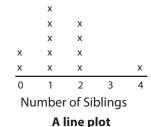
yard A U.S. customary unit of length equal to 3 feet, or 36 inches.

meter The basic metric unit of length from which other metric units of length are derived. One meter is equal to 100 centimeters, or 1.000 millimeters.

arm span The distance from fingertip to fingertip of outstretched arms.



line plot A sketch of data in which check marks, Xs, or other symbols above a labeled line show the frequency of each value.



Do-Anytime Activities

To work with your child on the concepts taught in this unit and previous units, try these interesting and rewarding activities:

- **1.** If you have a calculator at home, practice making multiples of 10 from given numbers or breaking apart multiples of 10. *For example*:
 - Enter 33. What needs to be done to display 50? (Add 17.)
 - Enter 70. What needs to be done to display 62? (Subtract 8.)
 - Enter 57. What needs to be done to display 90 (Add 33)
 - Enter 78. What needs to be done to display 50 (Subtract 28)
- **2.** Ask your child to estimate lengths or distances in your home in yards or in meters. To estimate, ask your child to imagine how many yardsticks or metersticks might fit along a length or a distance. Then measure with a yardstick or a meterstick to check the estimates.
- **3.** Collect a simple set of data from family and friends. For example, measure how high they can reach with their fingertips while standing flat on the floor. Display the data in a tally chart, on a line plot, or both.

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Building Skills through Games

In Unit 7 your child will practice mathematical skills by playing the following games:

Hit the Target

Players choose a 2-digit multiple of 10 (such as 10, 20, or 30) as a target number. One player chooses a starting number less than or larger than the target number, which the second player enters into a calculator. The second player tries to change it to the target number by adding or subtracting numbers on the calculator.

Basketball Addition

This game is played by two teams of three to five players each. Players score points by rolling a 20-sided die and recording the number (or rolling three 6-sided dice and recording the sum). The team score is determined by adding the scores of all the players on each team. The team that scores more points than the other wins the game.

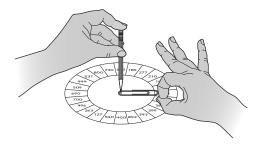


Beat the Calculator

One player is the Caller, who names two 1-digit numbers. Another player is the Brain, who adds the two numbers mentally. A third player is the Calculator, who adds the numbers with a calculator. The Brain tries to find the sum faster than the Calculator.

Addition/Subtraction Spin

Players spin a spinner to determine a 3-digit number. Then they roll a die to see if they should add 10 or 100 to the 3-digit number or subtract 10 or 100 from it. Players do the computation mentally.



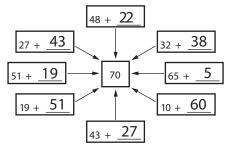
As You Help Your Child with Homework

When your child brings home assignments, you may want to go over the instructions together, clarifying them as necessary. The answers listed below will guide you through the Unit 7 Home Links.

Home Link 7-1

- **1.** 6; 7; 5; 9; 2
- **2.** 6; 7; 5; 9; 8

3.



Home Link 7-2

- **1.** Sample model: 13 + 7 + 6 = 26
- **2.** Sample model: 8 + 22 + 5 = 35
- **3.** Sample model: 25 + 15 + 9 = 49
- **4.** Sample model: 29 + 11 + 6 + 4 = 50
- **5.** 69
- **6.** 70
- **7.** 62
- **8.** 83
- **9.** 169
- **10.** 204

Home Link 7-3

- **1.** 35; 25; Team A
- 2. 30; 35; Team B
- **3.** 29; 40; Team B
- **4.** 45; 59; Team B

Home Link 7-4

- **1–3.** Answers vary.
- **4.** 94
- **5.** 67
- **6.** 34
- **7.** 54

Home Link 7-5

- **1.** Answers vary.
- 2. Answers vary.
- **3.** More centimeters; Sample answer: Centimeters are shorter, so it takes more of them to measure the same height.

- **4.** 2
- **5.** 50
- **6.** 93
- **7.** 41

Home Link 7-6

- 1-4. Answers vary.
- **5.** 60
- **6.** 75
- **7.** 43
- **8.** 8

Home Link 7-7

- **1.** 57, 60, 62, 64, 64, 68, 71, 72
- **2.** 57 inches
- **3.** 72 inches
- **4.** 15 inches

- **5.** 98
- **6.** 29

Home Link 7-8

- 1. 2 players
- 2. 0 players
- 3. 57 inches tall
- 4. 63 inches tall
- 5. 9 players
- **6.** 59 inches
- **7.** 39
- **8.** 67
- **9.** 19
- **10.** 61

Home Link 7-9

Favorite Vegetables Picture Graph

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<u>Carrots</u> <u>Peas</u> <u>Corn</u> <u>Other</u>

Name of Vegetable

KEY: Each 🙂 = 1 child

- **1.** 26
- **2.** 67
- **3.** 2
- **4.** 42