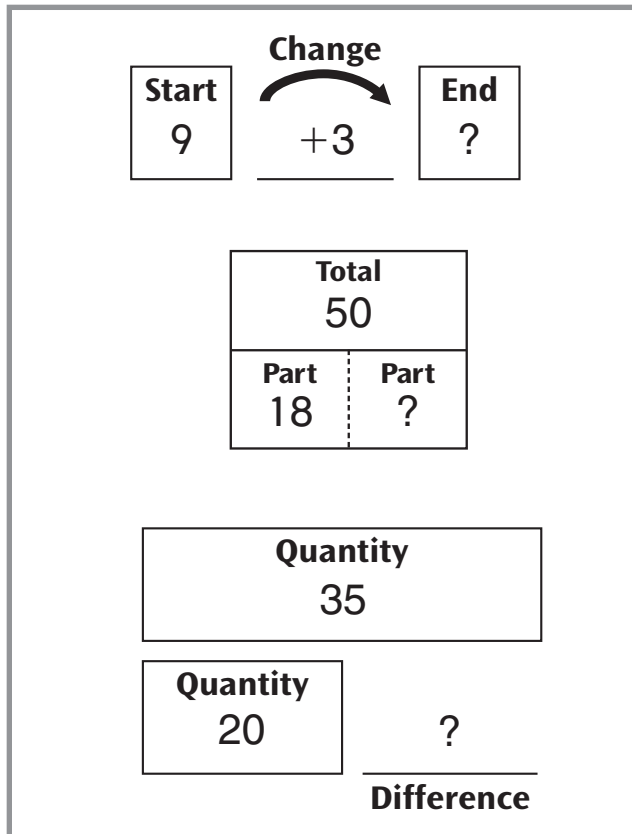
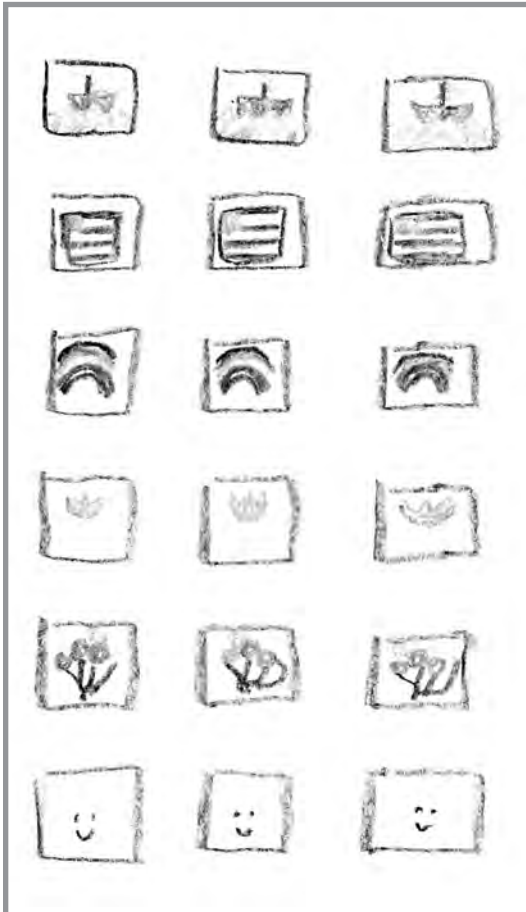




## Whole-Number Operations and Number Stories

In Unit 6, children will take another look at the addition and subtraction diagrams that were introduced in Unit 4.

Later in this unit, children will strengthen their understanding of multiplication and division as they act out number stories using manipulatives and arrays, complete diagrams to show the relationships in multiplication problems, and then begin to record corresponding number models.



above: addition and subtraction diagrams

left: A child uses an array to solve the following problem: A sheet of stamps has 6 rows. Each row has 3 stamps. How many stamps are on a sheet?

below: multiplication diagram

<b>boxes</b>	<b>marbles per box</b>	<b>marbles in all</b>
3	7	?

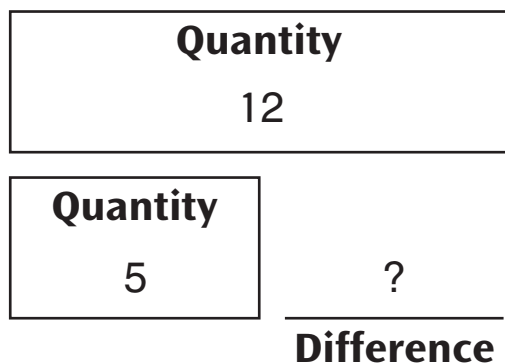
Please keep this Family Letter for reference as your child works through Unit 6.

## Vocabulary

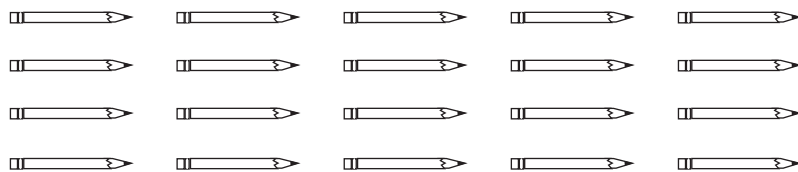
Important terms in Unit 6:

**comparison number story** A number story that involves the difference between two quantities. For example: Ross sold 12 cookies. Anthony sold 5 cookies. How many more cookies did Ross sell?

**comparison diagram** A diagram used to organize the information from a comparison number story. For example, the diagram below organizes the information from Anthony's cookie story above.



**rectangular array** An arrangement of objects into rows and columns. For example, 20 pencils could be arranged in 4 rows of 5 pencils each.



**multiples of a number** The product of the number and a counting number. For example, multiples of 2 are 2, 4, 6, 8, and 10 because  $2 \times 1 = 2$ ,  $2 \times 2 = 4$ ,  $2 \times 3 = 6$ , and so on.

**remainder** The amount left over when one number is divided by another number. For example, if 20 pencils are shared equally by 6 people, each person gets 3 pencils, and 2 are left over. The remainder is 2.

## Do-Anytime Activities

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

1. Have your child show you how making an array or making equal groups can help solve multiplication number stories. Use common objects, such as buttons or pennies, to act out the stories.
2. Also try the opposite: Draw or make arrays and multiples of equal groups. Have your child make up and solve number stories to go with them.
3. Discuss equal-sharing (division) stories. For example, use objects (such as pennies) to portray a situation like the following: We have 7 cookies to divide equally among 3 people. How many whole cookies will each person get? (2) How many cookies will be left over? (1)

## Building Skills through Games

In Unit 6, your child will practice addition, subtraction, and multiplication skills by playing the following games:

### **Three Addends**

Players draw three cards, write addition models of the numbers they've picked, and solve the problems.

### **Addition Top-It**

Each player turns over two cards and calls out their sum. The player with the higher sum then takes all the cards from that round.

### **Array Bingo**

Players roll the dice and find an *Array Bingo* card with the same number of dots. Players then turn that card over. The first player to have a row, column, or diagonal of facedown cards calls out "Bingo!" and wins the game.



### **Number-Grid Difference Game**

Players subtract 2-digit numbers using the number grid.

### **Fact Extension Game**

Players find sums of 2-digit numbers and multiples of ten.

## As You Help Your Child with Homework

As 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 this unit's Home Links.

### Home Link 6•1

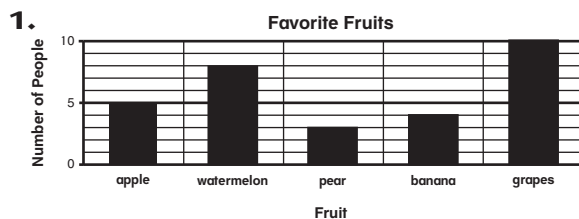
Sample answers:

- $13 + 6 + 7 = 26$
- $22 + 8 + 5 = 35$
- $15 + 9 + 25 = 49$
- $29 + 11 + 6 = 46$
- 69
- 70
- 62
- 83
- 148
- 190

### Home Link 6•2

- \$19;  $29 - 10 = 19$
- 15 fewer laps;  $20 + 15 = 35$
- June 22;  $10 + 12 = 22$
- |    |      |
|----|------|
| 4. | 90   |
|    | + 11 |
|    | ---  |
|    | 101  |
- |    |      |
|----|------|
| 5. | 40   |
|    | + 15 |
|    | ---  |
|    | 55   |
- |    |     |
|----|-----|
| 6. | 80  |
|    | + 7 |
|    | --- |
|    | 87  |

### Home Link 6•3



- grapes; pear



### Home Link 6•4

- 30
- 28
- 20

### Home Link 6•5

- 58; 41 cubes left;  $58 - 17 = 41$
- 26; 8 cubes left;  $26 - 18 = 8$
- 43; 18 cubes left;  $43 - 25 = 18$
- 39; 7 cubes left;  $39 - 32 = 7$
- 61; 14 cubes left;  $61 - 47 = 14$

### Home Link 6•6

- 4 rows; 5 Xs in each row; 20

### Home Link 6•7

- 3; 18
- 2; 8
- 10; 80

### Home Link 6•8

- 24
- 35

### Home Link 6•9

- Total = 21;  $7 \times 3 = 21$
- Total = 60;  $6 \times 10 = 60$
- 5 rows; 6 dots in each row; 30
- 3 rows; 9 squares per row; 27
- 6 rows; 6 squares in each row; 36

### Home Link 6•10

- by 2 people: 9¢ per person; 1¢ remaining  
by 3 people: 6¢ per person; 1¢ remaining  
by 4 people: 4¢ per person; 3¢ remaining