HOME LINK
10·12

Unit 11: Family Letter

Whole-Number Operations Revisited

In the beginning of Unit 11, children will solve addition and subtraction stories with dollars and cents. Children will use estimation to examine their answers and determine whether the answers make sense.

Children will also review the uses of multiplication and division and begin to develop multiplication and division fact power, or the ability to automatically recall the basic multiplication and division facts.

Children will work with shortcuts, which will help them extend known facts to related facts. For example, the **turn-around rule for multiplication** shows that the order of the numbers being multiplied (the factors) does not affect the product; 3×4 is the same as 4×3. Children will also learn what it means to multiply a number by 0 and by 1. Working with patterns in a Facts Table and in fact families will also help children explore ways of learning multiplication and division facts.

×, ÷	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

Multiplication/Division Facts Table

Please keep this Family Letter for reference as your child works through Unit 11.
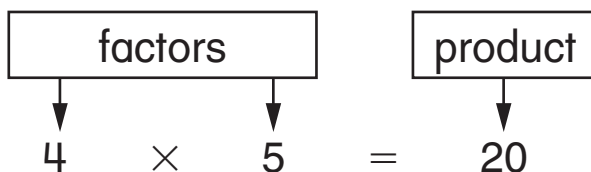
Vocabulary

Important terms in Unit 11:

multiplication diagram A diagram used in *Everyday Mathematics* to model situations in which a total number is made up of equal-sized groups. The diagram contains a number of groups, a number in each group, and a total number.

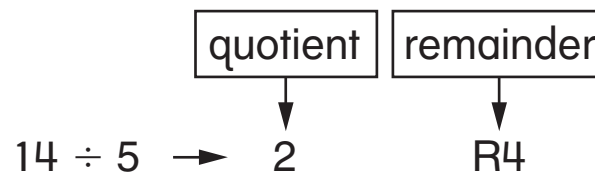| rows	_____ per row	_____ in all

Number model: _____ × _____ = _____

factor Each of the two or more numbers in a product.

factors		product

$$4 \quad \times \quad 5 \quad = \quad 20$$

product The result of multiplying two numbers, called *factors*.

quotient The result of dividing one number by another.

quotient	remainder

$$14 \div 5 \rightarrow 2 \qquad R4$$

turn-around rule A rule for solving addition and multiplication problems saying it doesn't matter in which order the numbers are written. For example, if you know that $6 + 8 = 14$, then, by the turn-around rule, you also know that $8 + 6 = 14$.

range The difference between the largest (maximum) and smallest (minimum) numbers in a set of data. For example, the range of the data below is $38 - 32 = 6$.

$$32 \quad 32 \quad 34 \quad 35 \quad 35 \quad 37 \quad 38$$

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. Review common multiplication shortcuts. Ask, for example: *What happens when you multiply a number by 1? By 0? By 10?* Use pennies to show that 2×3 pennies is the same as 3×2 pennies.

2. At a restaurant or while grocery shopping, work together to estimate the bill.

3. Take turns making up multiplication and division number stories to solve.

Building Skills through Games

In Unit 11, your child will practice multiplication skills, mental arithmetic, and predicting the outcome of events by playing the following games:

Beat the Calculator

A "Calculator" (a player who uses a calculator to solve the problem) and a "Brain" (a player who solves the problem without a calculator) race to see who will be first to solve multiplication problems.

Hit the Target

Players choose a 2-digit multiple of ten as a "target number." One player enters a "starting number" into a calculator and tries to change the starting number to the target number by adding a number to it on the calculator. Children practice finding differences between 2-digit numbers and higher multiples of tens.

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.

Name That Number

Each player turns over a card to find a number that must be renamed using any combination of five faceup cards.

Soccer Spin

Players pick which spinner will best help them make a goal.

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 11·1

1. $2.22   **2.** $4.06   **3.** $3.34   **4.** $1.64

Home Link 11·2

1. glue stick; $0.14   **2.** glitter; $0.58

3. coloring pencils; $1.12

4. coloring pencils; $1.84

5. $0.11   **6.** $2.22

Home Link 11·3

1. 31; $70 - 40 = 30$ **2.** 23; $50 - 30 = 20$

3. 29; $90 - 60 = 30$ **4.** 17; $30 - 10 = 20$

5. 16; $30 - 20 = 10$

Home Link 11·4

1. 18 tennis balls; $6 \times 3 = 18$

2. 32 buns; $4 \times 8 = 32$

Home Link 11·5

1. 6 packages; $18 \div 3 \rightarrow 6$ R0

2. 6 cards; $25 \div 4 \rightarrow 6$ R1

Home Link 11·6

1. 12   **2.** 12   **3.** 10

4. 9 • • • • • • • • • •
          • • • • • • • • • •

5. 14 • • • • • • •
           • • • • • • •

6. 12 • • • • •
           • • • • •

7. 2 nickels = 10 cents; $2 \times 5 = 10$

    6 nickels = 30 cents; $6 \times 5 = 30$

8. 4 dimes = 40 cents; $4 \times 10 = 40$

    7 dimes = 70 cents; $7 \times 10 = 70$

9. double 6 = 12; $2 \times 6 = 12$

    double 9 = 18; $2 \times 9 = 18$

Home Link 11·7

2. a. 99   **b.** 502   **c.** 0   **d.** 0

4. 55   **5.** 26

Home Link 11·9

1. $5 \times 7 = 35$ **2.** $3 \times 6 = 18$

    $7 \times 5 = 35$ $6 \times 3 = 18$

    $35 \div 5 = 7$ $18 \div 3 = 6$

    $35 \div 7 = 5$ $18 \div 6 = 3$

3. $4 \times 6 = 24$ **4.** $5 \times 6 = 30$

    $6 \times 4 = 24$ $6 \times 5 = 30$

    $24 \div 4 = 6$ $30 \div 5 = 6$

    $24 \div 6 = 4$ $30 \div 6 = 5$