EUREKA MATH™ TIPS FOR PARENTS

KEY CONCEPT OVERVIEW

Lessons 7 through 11 focus on multiplication. Students multiply a one-digit number by a number with up to four digits.

You can expect to see homework that asks your child to do the following:

- Draw place value disks to represent multiplication **expressions**.
- Multiply one-digit numbers by a number with up to four digits by using the **standard algorithm**, the **partial products** method, and the area model (as shown in this order in the Sample Problem below).
- Use multiplication to solve word problems.

SAMPLE PROBLEM *(From Lesson 11)*

Solve the following expression by using the standard algorithm, the partial products method, and the area model.

9×762

$$\begin{array}{r} 7\ 6\ 2 \\ \times\quad\ 9 \\ \hline 6,\ 8\ 5\ 8 \end{array}$$

$$\begin{array}{r} 7\ 6\ 2 \\ \times\quad\ 9 \\ \hline 1\ 8 \\ 5\ 4\ 0 \\ +\ 6,\ 3\ 0\ 0 \\ \hline 6,\ 8\ 5\ 8 \end{array}$$

9 × (700 + 60 + 2)

(9 × 700) + (9 × 60) + (9 × 2)

6,300 + 540 + 18 = 6,858

Additional sample problems with detailed answer steps are found in the *Eureka Math Homework Helpers* books. Learn more at GreatMinds.org.

HOW YOU CAN HELP AT HOME

- Discuss with your child the different methods for solving multiplication expressions. Ask her to explain which one she likes best and why. This will help you to understand her math thinking and help her to verbalize her thoughts.
- Write five multiplication expressions of a one-digit number times a two-, three-, or four-digit number. Before your child solves each expression, prompt him to roll a die to determine which method to use: 1 means standard algorithm, 2 means partial products, 3 means area model, 4 means his choice, 5 means you have to solve, 6 means he can use a calculator.

TERMS

Expression: Any combination of sums, differences, products, or divisions of numbers that evaluates to a number. For example, 3×4 is an expression. Expressions do not have an equal sign.

Partial products: The result of decomposing a multiplication expression into smaller parts. For example, we can decompose 24×6 into the partial products of 20×6 and 4×6.

Standard algorithm: A standard step-by-step procedure to solve a particular type of problem. For example, the process of multiplying vertically with regrouping is a standard algorithm.