

## KEY CONCEPT OVERVIEW

In Lessons 10 through 12, students learn to multiply multi-digit whole numbers by decimal numbers, using the area model (as shown in the Sample Problem below).

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

- Estimate the product (e.g.,  $4.1 \times 226 \approx 4 \times 200 = 800$ ).
- Solve multiplication problems by using an area model.
- Solve word problems that involve multiplying multi-digit whole numbers by decimal numbers.

## SAMPLE PROBLEM (From Lesson 12)

Estimate the product. Solve by using an area model and the standard algorithm.

$$13 \times 3.12 \approx 10 \times 3 = 30$$

	300	+	10	+	2	(hundredths)
3	900		30		6	936 hundredths
+						
10	3,000		100		20	3,120 hundredths

$$9.36 + 31.20 = 40.56$$

$$\begin{array}{r} 3.12 \\ \times 13 \\ \hline 936 \\ + 3120 \\ \hline 40.56 \end{array}$$

LEARN MORE by viewing a video on using an array and an area model to solve multiplication problems. Visit [eurmath.link/arrays-area-models](http://eurmath.link/arrays-area-models).

Additional sample problems with detailed answer steps are found in the *Eureka Math Homework Helpers* books. Learn more at [GreatMinds.org](http://GreatMinds.org).

**HOW YOU CAN HELP AT HOME** 

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- Help your child practice multiplication facts. Have him bounce a basketball as he says the multiples of different numbers. For example, he can practice saying the multiples of 8 with each bounce: 0, 8, 16, 24, 32, 40, 48, 56, 64, 72, 80. Then he can say them backward: 80, 72, 64, 56, 48, 40, 32, 24, 16, 8, 0.
- Practice estimation at the grocery store. For example, say, “I want to buy 7 watermelons, and each one costs \$2.99. Estimate my total cost.” ( $7 \times \$2.99 \approx 7 \times \$3 = \$21$ )