

# School-Home Letter

Dear Family,

Throughout the next few weeks, our math class will be learning about decimal multiplication. We will also be learning how to estimate decimal products.

You can expect to see homework that involves multiplication of decimals.

Here is a sample of how your child will be taught to multiply decimals.

## Vocabulary

**decimal** A number with one or more digits to the right of the decimal point

**expanded form** A way to write numbers by showing the value of each digit

**product** The answer to a multiplication problem

## MODEL Multiply Decimals

Multiply.  $3.2 \times 4.17$

### STEP 1

Estimate.

$$3.2 \times 4.17$$

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$$3 \times 4 = 12$$

### STEP 2

Multiply as with whole numbers.

$$\begin{array}{r} \phantom{0}2 \\ \phantom{0}1 \\ 417 \\ \times 32 \\ \hline 834 \\ +12,510 \\ \hline 13,344 \end{array}$$

### STEP 3

Use the estimate to place the decimal point.

$$3.2 \times 4.17 = 13.344$$

Think: The product should be close to the estimate.

## Tips

### Placing the Decimal Point

To help place the decimal point in the product, add the number of decimal places in each factor.

For example, since 4.17 has 2 decimal places and 3.2 has 1 decimal place, the product will have  $2 + 1$ , or 3 decimal places.

## Activity

A trip to the grocery store or the gas station is a perfect opportunity to practice decimal operations. For example, "We bought 8.6 gallons of gasoline that cost \$2.95 per gallon. What was the total cost?" Work together to write a multiplication sentence with decimals that represents the situation. Then estimate before multiplying to find the exact product.