

# Multiply a Decimal by a Whole Number

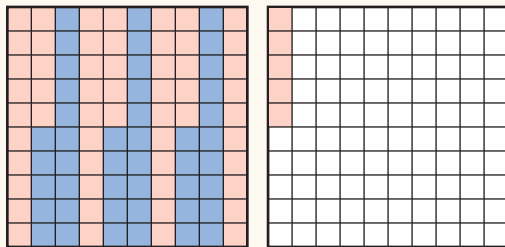


Dear Family,

This week your child is learning to multiply a decimal by a whole number.

One way your child is learning to show multiplying a decimal by a whole number is with a decimal model called a hundredths grid.

The hundredths grids below show  $7 \times 0.15$ .



Each grid represents one whole (1.0), and each square represents one hundredth (0.01). Each group of fifteen shaded squares shows 15 hundredths (0.15). The decimal model above shows 7 groups of 15 hundredths, or  $7 \times 0.15$ . The total of 105 shaded squares represents 105 hundredths, or  $\frac{105}{100}$ .

$$\frac{105}{100} = 1.05$$

So,  $7 \times 0.15 = 1.05$ .

Your child is also learning how to record the steps of multiplying a decimal by a whole number in a vertical format.

$$\begin{array}{r} 0.15 \\ \times 7 \\ \hline 35 \leftarrow 7 \text{ ones} \times 5 \text{ hundredths} = 35 \text{ hundredths} \\ + 70 \leftarrow 7 \text{ ones} \times 1 \text{ tenth} = 7 \text{ tenths} = 70 \text{ hundredths} \\ \hline 105 \text{ hundredths} = 1.05 \end{array}$$

Invite your child to share what he or she knows about multiplying decimals by whole numbers by doing the following activity together.

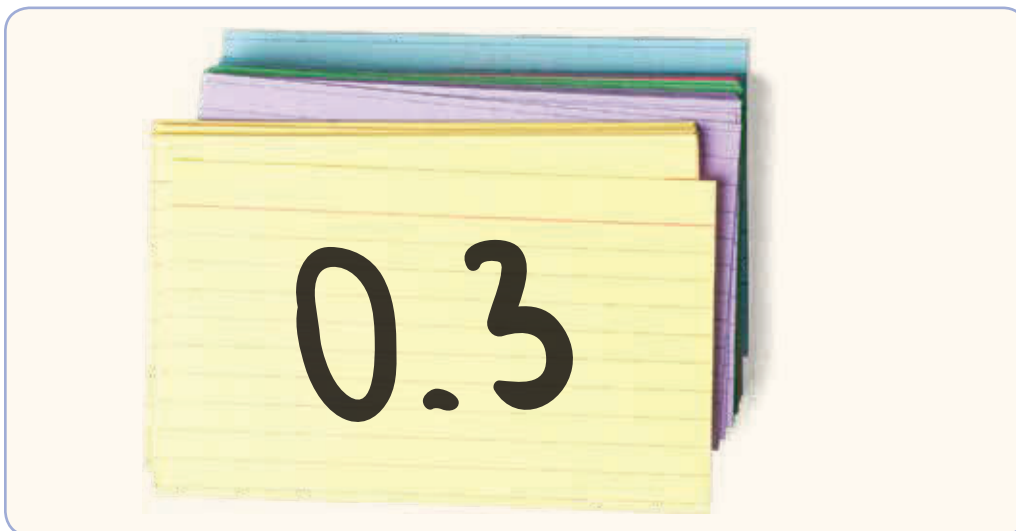
## ACTIVITY MULTIPLY WHOLE NUMBERS AND DECIMALS

Do this activity with your child to multiply a decimal by a whole number.

**Materials** calculator, eight index cards, paper, pencil

Work with your child to solve problems that involve multiplying a decimal by a whole number.

- Write one whole number on four of the index cards. (Each number should be between 2 and 9.) Place in one stack.
- Write one decimal (in tenths or hundredths) on the other four index cards. Place in a second stack.
- Give your child the paper and pencil.
- Select one card from the stack of whole numbers and one card from the stack of decimal numbers. Ask your child to multiply the whole number by the decimal.
- Have your child use any method to find the product.
- Use the calculator to check his or her answer.
- Repeat until all four whole numbers have been used.



Look for real-world examples of multiplying decimals by whole numbers with your child. For instance, you may buy 3 pounds of potatoes at a cost of \$0.73 per pound. Work together with your child to multiply to find the total cost of the potatoes. Repeat with other items that you may purchase.