Unit 5, Lesson 17

Multiply Decimals and Whole Numbers

Let's multiply whole numbers by tenths and hundredths.

Warm-up

True or False: Place Value Products

Decide if each statement is true or false. Be prepared to explain your reasoning.

- $100 \times 0.01 = 1$

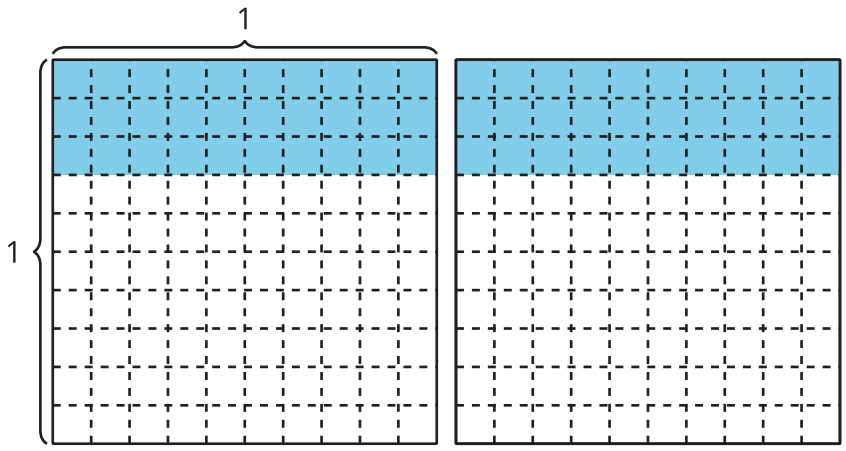
- $10 \times 0.1 = 0.01$

- $10 \times 0.01 = 0.1$

Activity 1

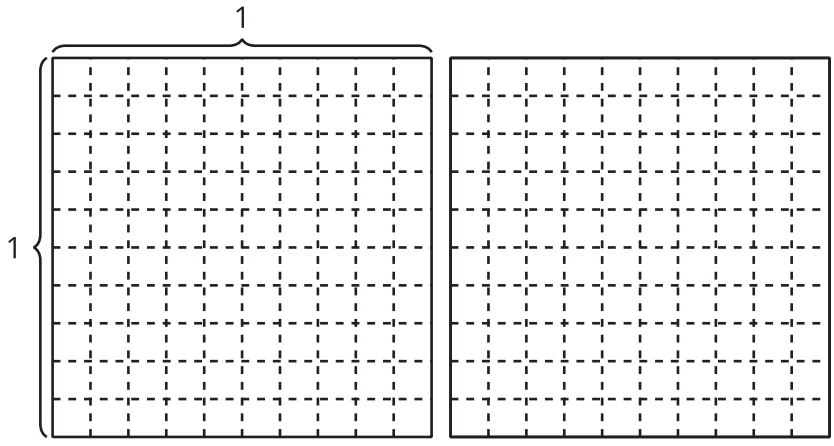
Multiply Decimals by Whole Numbers

How many do you see?

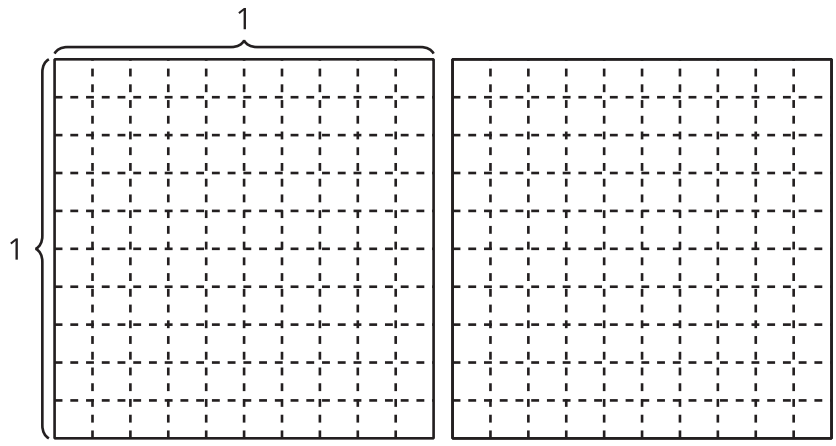


Find the value of each expression in a way that makes sense to you. Explain or show your reasoning. Use the diagrams if they are helpful.

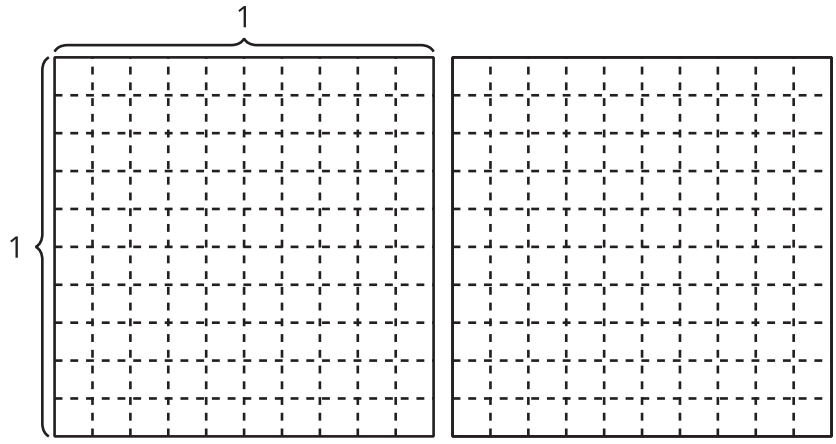
1. 2×0.7



2. 2×0.08



3. 2×0.78



Activity 2

Using Whole Number Products

1. Find the value of each expression. Explain or show your reasoning.

   a. 3×0.5

   b. 5×0.3

   c. 7×0.02

2. Kiran writes this explanation to describe the strategy he used to multiply a whole number by some tenths:

   "I just turn the numbers into whole numbers, multiply them, and call them tenths."

   Fill in the blanks to show how Kiran's strategy works.

   $6 \times 0.7 = 6\times$ _____ tenths = _____ tenths = 4.2

   $6 \times 0.07 = 6\times$ _____ hundredths = _____ hundredths = _____