

## Lesson 20: Products in the Hundredths Place

### Standards Alignments

Addressing 5.NBT.B.7, 5.NF.B.4

Building Towards 5.NF.B.7

### Teacher-facing Learning Goals

- Use diagrams and place value reasoning to interpret and evaluate products of two decimal numbers.

### Student-facing Learning Goals

- Let's multiply tenths by tenths.

### Lesson Purpose

The purpose of this lesson is for students to find products of tenths and tenths.

The purpose of this lesson is for students to find products of two decimal numbers where each decimal represents a number of tenths, using the place value reasoning and diagrams that were also useful for finding the product of a whole number and a decimal. Students explain why  $0.1 \times 0.1 = 0.01$  in the warm-up and this opens up one strategy for finding products like  $1.5 \times 0.7$ . In particular, this can be rewritten as

$$(15 \times 0.1) \times (7 \times 0.1) = (15 \times 7) \times (0.1 \times 0.1).$$

So the value of  $1.5 \times 0.7$  is 105 hundredths or 1.05. A second approach uses area diagrams which students are familiar with from earlier lessons in this unit and from when they used them to find products of fractions. Decimals are an example of fractions and these diagrams are useful in this situation as well.

### Access for:



#### Students with Disabilities

- Representation (Activity 1)



#### English Learners

- MLR8 (Activity 1)

### Instructional Routines

What Do You Know About \_\_\_\_? (Warm-up)

### Materials to Copy

- Small Grids (groups of 1): Activity 1

- Small Grids (groups of 1): Activity 2

### Lesson Timeline

Warm-up	10 min
Activity 1	15 min
Activity 2	20 min
Lesson Synthesis	10 min
Cool-down	5 min

### Teacher Reflection Question

What do you love most about math? How are you sharing that joy with your students and encouraging them to think about what they love about math?

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### Cool-down (to be completed at the end of the lesson)

 5 min

Tenths

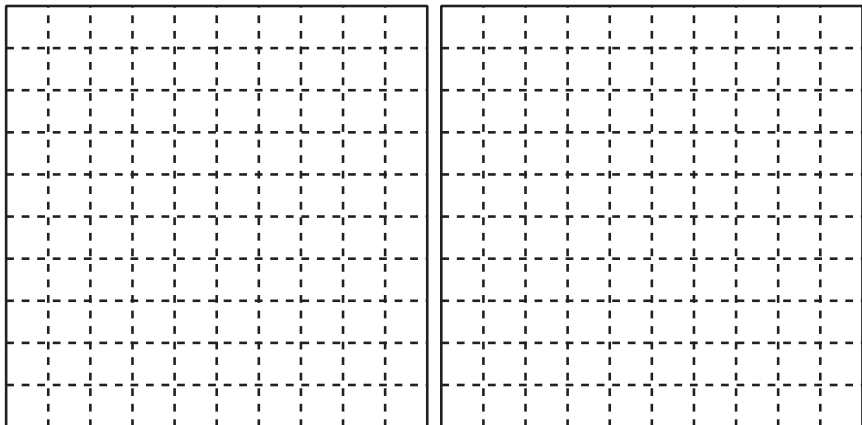
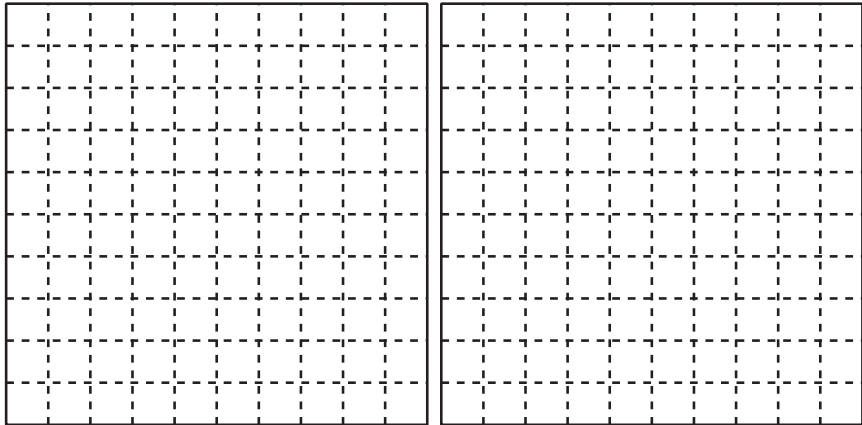
#### Standards Alignments

Addressing 5.NBT.B.7

#### Student-facing Task Statement

Find the value of each expression. Use the diagrams if they are helpful.

1.  $0.3 \times 0.6$
2.  $1.3 \times 0.6$



**Student Responses**

1. 0.18 or equivalent
2. 0.78 or equivalent