Unit 12

Multiply Decimals

Standard

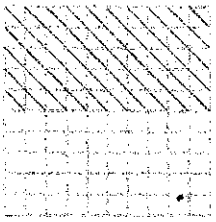
Number & Operations in Base Ten
Perform operations with multi-digit whole numbers and with decimals to hundredths.

5.NBT.7 Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Model the Skill

- Write the following problem on the board.

  0.5 x 0.9 =



- **Say:** *Today we are going to multiply decimals using a hundredths grid to model the multiplication. The grid shows one whole. What does each row show?* (one-tenth) *What does each column show?* (one-tenth) *What two decimals are we multiplying in the problem?* (0.5 and 0.9) Guide students to see how each factor is shown on the grid. **Ask:** *How many squares are shaded by both factors?* (45) *What decimal names those squares?* (0.45) *What is five-tenths of nine-tenths?* (forty-five hundredths)

- Assign students the appropriate practice page(s) to support their understanding of the skill.

Assess the Skill

Use the following problems to pre-/post-assess students' understanding of the skill.

0.2 x 0.7	0.3 x 0.07	0.3 x 0.13	0.85 x 0.1
0.4 x 1.2	0.7 x 1.3	2.4 x 1.2	2.06 x 1.24

Name _____

Find each product. Multiply as you would with whole numbers.

❶ 2.3 x 0.7

$$\begin{array}{r} {\scriptstyle 2}\\ 2.3 \\ \times\ 0.7 \\ \hline 1.61 \end{array}$$

← 1 decimal place
← 1 decimal place
← Write the decimal point in the product.

❷ 1.5 x 0.3

$$\begin{array}{r} 1.5 \\ \times\ 0.3 \\ \hline \end{array}$$

❸ 1.8 x 0.6

$$\begin{array}{r} 1.8 \\ \times\ 0.6 \\ \hline \end{array}$$

❹ 0.21 x 0.4

$$\begin{array}{r} 0.21 \\ \times\ 0.4 \\ \hline \end{array}$$

❺ 6.5 x 1.2

$$\begin{array}{r} 6.5 \\ \times\ 1.2 \\ \hline \end{array}$$

❻ 3.02 x 0.02

$$\begin{array}{r} 3.02 \\ \times 0.02 \\ \hline \end{array}$$

❼ 4.5 x 1.1

$$\begin{array}{r} 4.5 \\ \times\ 1.1 \\ \hline \end{array}$$

❽ 0.19 x 1.9

$$\begin{array}{r} 0.19 \\ \times\ 1.9 \\ \hline \end{array}$$

❾ 0.22 x 0.5

$$\begin{array}{r} 0.22 \\ \times\ 0.5 \\ \hline \end{array}$$

❿ 1.6 x 3.7

$$\begin{array}{r} 1.6 \\ \times\ 3.7 \\ \hline \end{array}$$

⓫ 8.09 x 0.1

$$\begin{array}{r} 8.09 \\ \times\ 0.1 \\ \hline \end{array}$$

⓬ 7.11 x 9.5

$$\begin{array}{r} 7.11 \\ \times\ 9.5 \\ \hline \end{array}$$

⓭ 0.06 x 0.6

$$\begin{array}{r} 0.06 \\ \times\ 0.6 \\ \hline \end{array}$$

⓮ 4.03 x 0.5

$$\begin{array}{r} 4.03 \\ \times\ 0.5 \\ \hline \end{array}$$

⓯ 0.75 x 0.8

$$\begin{array}{r} 0.75 \\ \times\ 0.8 \\ \hline \end{array}$$

⓰ 1.38 x 0.08

$$\begin{array}{r} 1.38 \\ \times\ 0.08 \\ \hline \end{array}$$

Solve.

1. What is the product of 1.1 and 3.03?

2. What is the product of 10.04 and 2.8?

3. Harley bought some fabric for $3.50 per yard. If she bought 3 yards, how much did the fabric cost?

4. One can of corn is $1.09. If Mr. Ortiz buys 4 cans of corn, how much will it cost?

5. Jillian's favorite song is 1.5 minutes long. If she plays the song 5 times in a row, how long will she be listening to the song?

6. Charlie is making pancakes. The recipe says that he will need 1.75 cups of milk. If he doubles the recipe, how many cups of milk will he need?

Circle the letter for the correct answer.

7. Mrs. Pepe buys 0.5 pound of American cheese at the deli. If the price of American cheese is $6.50 per pound, how much does she pay for the cheese?

   a) $32.50

   b) $3.25

   c) $0.325

   d) $35.20

8. If the price of salmon is $9.99 per pound, how much does a 1.5-pound piece of salmon cost?

   a) $14.99

   b) $14.45

   c) $12.45

   d) $149.85

Name _____

Find each product. Multiply as you would with whole numbers.

1. 0.5 x 3	2. 2.6 x 0.8	3. 4.39 x 2.7	4. 6.28 x 0.02
5. 4.5 x 0.2	6. 1.8 x 0.5	7. 10.73 x 1.1	8. 7.08 x 0.02
9. 3.2 x 0.6	10. 1.09 x 0.3	11. 1.7 x 0.23	12. 0.99 x 0.11
13. 5.5 x 0.3	14. 2.6 x 0.8	15. 10.09 x 0.4	16. 4.15 x 0.03
17. 8.31 x 6	18. 11.1 x 0.9	19. 2.08 x 0.03	20. 59.3 x 0.07
21. 40.5 x 0.4	22. 100.1 x 0.7	23. 4.7 x 8.6	24. 20.08 x 0.09

☆ **Tell how you found the product.**