Represent Decimal Multiplication

I Can) use models to represent multiplication of decimals.

5.NSO.2.5 Mathematical Thinking & Reasoning MTR.1.1, MTR.2.1, MTR.3.1, MTR.4.1, MTR.5.1, MTR.6.1, MTR.7.1

Number Sense & Operations 5.NSO.2.4,

Florida's B.E.S.T.

Investigate

Materials color pencils

The distance from Oliana's house to her school is 0.8 mile. Oliana rides her bike 0.7 of the distance and walks the rest of the way. How far does Oliana ride her bike to school?

You can use a decimal square to multiply decimals.

Multiply. 0.7 × 0.8

- **A.** Draw a square with 10 equal columns.
 - What decimal value does each column represent? ______
- **B.** Using a color pencil, shade columns on the grid to represent the distance to Oliana's school.
 - The distance to the school is 0.8 mile.

How many columns did you shade? ____

- **C.** Divide the square into 10 equal rows.
 - What decimal value does each row represent?
- **D.** Using a different color, shade rows that overlap the shaded columns to represent the distance to school that Oliana rides her bike.
 - What part of the distance to school does Oliana ride

her bike?

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- How many rows of the shaded columns did you shade?
- **E.** Count the number of squares that you shaded twice.

There are ______ squares. Each square represents ______.

Record the value of the squares as the product. $0.7 \times 0.8 =$ _____

So, Oliana rides her bike for _____ mile.



CHAPTER 6 Lesson **1**

Draw Conclusions

1. Explain how dividing the decimal square into 10 equal columns and rows shows that tenths multiplied by tenths is equal to hundredths.

2. MTR Why is the part of the model representing the product less than either factor?

Make Connections

You can use decimal squares to multiply decimals greater than 1.

Multiply. 0.3×1.4

STEP 1

Shade columns to represent 1.4.

How many tenths are in 1.4?

STEP 2

Shade rows that overlap the shaded columns to represent 0.3.

How many rows of the shaded

columns did you shade? _____

STEP 3

Count the number of squares that you shaded twice. Record the product at the right.

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0.3 × 1.4 = _____



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