

Decimal and Whole Number Multiplication Thin Slice

Draft H.Rigatti, March 2023, Gr5 Lesson 15

Prep:

- Plastic sleeves with base ten blocks for each vertical board
- Copy the slices page file for each vertical board group.
 - Create thin slices by cutting into strips: #1 as one strip, #2 as one strip, #3 as one strip, #4-10 as one strip and #11-15 as one strip
- Copy one copy of the notes sheet per student (maybe on colored paper); keep in workbook or folder
- Copy the Check Your Understanding (half sheet per student)

Vertical Boards:

- Put students in VRG at VNPS.
- Learning Target - Today, you are going to multiply whole numbers and decimals.
- #1. Ask them to keep all their work on their board for all of it and not erase. Consolidation discussion.
 - Consider a gallery walk, especially if all groups didn't figure it out. Have the class meet you around one of the boards if it is particularly well done/clear.
 - What answers did you get? How do you know? Students share out. (Teacher strategically calls on approximately two groups.)
 - What strategies did you use? Look for evidence of...
 - repeated addition? visual models?
- #2. Tell them not to erase each one yet. Leave on the boards. Consolidation discussion.
 - Consider a gallery walk, especially if all groups didn't figure it out. Have the class meet you around one of the boards if it is particularly well done/clear.
 - What patterns do you notice? Students share out. Look for evidence of...
 - patterns and reasoning? estimating?
- #3. Tell them not to erase each one yet. Leave on the boards. Consolidation discussion:
 - The number of digits to the right of the decimal point in the product is _____
number of digits to the right of the decimal point in the factors.
- Do slices #4-10. Do not erase. (You don't have to wait for them to finish every problem...)
 - Check over their work. Ask them to explain their thinking.
- Given them slices #11-15. Let them go now to try it. Check their work as they go (do not erase without being checked)
 - Consolidation discussion after #15 with each group (You don't have to wait for them to finish every problem...)
 - What is the pattern?
 - How did you use that pattern to figure out the next one? (What might you write down in your notes to your future forgetful self?)
 - What happens when you multiply a whole number and a decimal?

Notes to My Future Forgetful Self:

- Have students take notes. Let them do it and put what they think is helpful. The bottom of the notes has more additional practice.

Check Your Understanding

- Give them a quick check to see how it went.

#1	$7 \times 5 = \underline{\hspace{2cm}}$ $7 \times 0.5 = \underline{\hspace{2cm}}$ $7 \times 0.05 = \underline{\hspace{2cm}}$ How do you know?
#2	$4 \times 13 = \underline{\hspace{2cm}}$ $4 \times 1.3 = \underline{\hspace{2cm}}$ $4 \times 0.13 = \underline{\hspace{2cm}}$ What patterns do you see? Will that always happen?
#3	$12 \times 6 = \underline{\hspace{2cm}}$ $1.2 \times 6 = \underline{\hspace{2cm}}$ $0.12 \times 6 = \underline{\hspace{2cm}}$ What makes sense in the blank? Will that always happen? <ul style="list-style-type: none"> The number of digits to the <u>right of the decimal point</u> in the product is _____ number of digits to the <u>right of the decimal point</u> in the factor.
#4	$3 \times 0.6 =$
#5	$5 \times 0.04 =$
#6	$0.6 \times 3 =$
#7	$0.2 \times 4 =$
#8	$5 \times 0.8 =$
#9	$0.09 \times 3 =$
#10	$0.51 \times 3 =$

#11	Harrison bought 4 pounds of grapes. Each pound of grapes costs \$1.78. How much money did Harrison spend on grapes?
#12	Sam swims for 1.7 hours each day at practice. He practices once per day. How many hours will Sam swim in 5 days?
#13	<p>The area model below can be used to find the product of 3 and 2.17. Complete the area model and find the product.</p> <div data-bbox="272 835 1523 997"> <p>The area model consists of a large rectangle divided into three equal-width sections. Above the first section is the number 2, above the second is 0.1, and above the third is 0.07. To the left of the first section is the number 3.</p> </div> <p>$3 \times 2.17 = \dots\dots\dots$</p>
#14	A person's hair grows 1.3 centimeters in 1 month. How much does a person's hair grow in 9 months?
#15	<p>Which product has a value of 9.8?</p> <p>A) 14×7</p> <p>B) 1.4×7</p> <p>C) 0.14×7</p> <p>D) 4.8×2</p>

Multiply Decimals and Whole Numbers Notes

Name_____

L15

Write down four things (one in each box) for your future forgetful self.

Try It!

Solve.

$9 \times 0.05 = \underline{\hspace{2cm}}$

$3.2 \times 6 = \underline{\hspace{2cm}}$

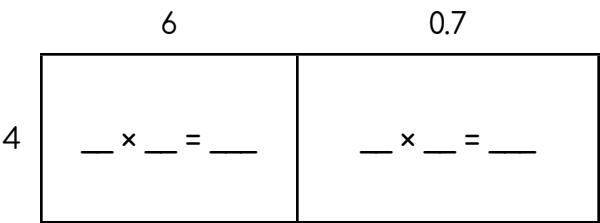
$4.1 \times 8 = \underline{\hspace{2cm}}$

$7 \times 6.3 = \underline{\hspace{2cm}}$

$10 \times 51.8 = \underline{\hspace{2cm}}$

$12 \times 0.06 = \underline{\hspace{2cm}}$

What is 4×6.7 ? Show using an area model.



Pedro buys 6 boxes of cereal for \$4.25 each. How much money does he spend?

Multiply Whole Numbers and Decimals: Check Your Understanding Name_____

L15

19.2 x 6 = _____	Lara buys 12 bananas for \$.28 each. How much does Lara spend on bananas?
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Solve. What is 8.3 x 5?

	8	0.3
5	__ x __ = __	__ x __ = __

Multiply Whole Numbers and Decimals: Check Your Understanding Name_____

L15

19.2 x 6 = _____	Lara buys 12 bananas for \$.28 each. How much does Lara spend on bananas?
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Solve. What is 8.3 x 5?

	8	0.3
5	__ x __ = __	__ x __ = __