Summative Assessment

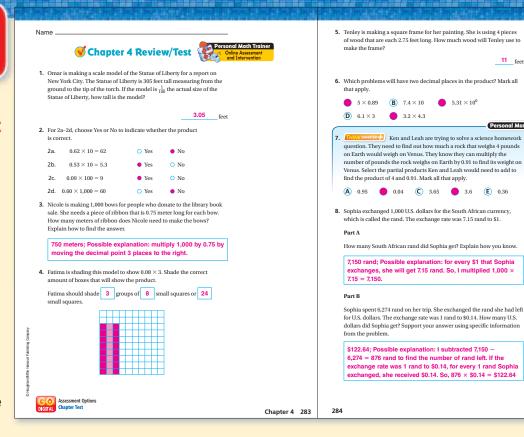Use the **Chapter Review/Test** to assess students' progress in Chapter 4.

You may want to review with students the essential question for the chapter.

Chapter Essential Question

How can you solve decimal multiplication problems?

Ask the following questions to focus students' thinking:

- **How is multiplying with decimals similar to multiplying with whole numbers?**
- **How can patterns, models, and drawings help you solve decimal multiplication problems?**
- **How do you know where to place a decimal point in a product?**
- **How do you know the correct number of decimal places in a product?**

Name _____

✓ Chapter 4 Review/Test

Personal Math Trainer
Online Assessment and Intervention

1. Omar is making a scale model of the Statue of Liberty for a report on New York City. The Statue of Liberty is 305 feet tall measuring from the ground to the tip of the torch. If the model is $\frac{1}{100}$ the actual size of the Statue of Liberty, how tall is the model?

   3.05 feet

2. For 2a–2d, choose Yes or No to indicate whether the product is correct.

   2a. $0.62 \times 10 = 62$ ○ Yes ● No
   2b. $0.53 \times 10 = 5.3$ ● Yes ○ No
   2c. $0.09 \times 100 = 9$ ● Yes ○ No
   2d. $0.60 \times 1,000 = 60$ ○ Yes ● No

3. Nicole is making 1,000 bows for people who donate to the library book sale. She needs a piece of ribbon that is 0.75 meter long for each bow. How many meters of ribbon does Nicole need to make the bows? Explain how to find the answer.

   750 meters; Possible explanation: multiply 1,000 by 0.75 by moving the decimal point 3 places to the right.

4. Fatima is shading this model to show 0.08×3. Shade the correct amount of boxes that will show the product.

   Fatima should shade **3** groups of **8** small squares or **24** small squares.

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GO DIGITAL Assessment Options Chapter Test

Chapter 4 283

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5. Tenley is making a square frame for her painting. She is using 4 pieces of wood that are each 2.75 feet long. How much wood will Tenley use to make the frame?

   11 feet

6. Which problems will have two decimal places in the product? Mark all that apply.

   ● 5×0.89 Ⓑ 7.4×10 ● 5.31×10^0
   Ⓓ 6.1×3 ● 3.2×4.3

   Personal Math Trainer

7. **THINK SMARTER+** Ken and Leah are trying to solve a science homework question. They need to find out how much a rock that weighs 4 pounds on Earth would weigh on Venus. They know they can multiply the number of pounds the rock weighs on Earth by 0.91 to find its weight on Venus. Select the partial products Ken and Leah would need to add to find the product of 4 and 0.91. Mark all that apply.

   Ⓐ 0.95 ● 0.04 Ⓒ 3.65 ● 3.6 Ⓔ 0.36

8. Sophia exchanged 1,000 U.S. dollars for the South African currency, which is called the rand. The exchange rate was 7.15 rand to $1.

   Part A

   How many South African rand did Sophia get? Explain how you know.

   7,150 rand; Possible explanation: for every $1 that Sophia exchanges, she will get 7.15 rand. So, I multiplied 1,000 × 7.15 = 7,150.

   Part B

   Sophia spent 6,274 rand on her trip. She exchanged the rand she had left for U.S. dollars. The exchange rate was 1 rand to $0.14. How many U.S. dollars did Sophia get? Support your answer using specific information from the problem.

   $122.64; Possible explanation: I subtracted 7,150 − 6,274 = 876 rand to find the number of rand left. If the exchange rate was 1 rand to $0.14, for every 1 rand Sophia exchanged, she received $0.14. So, 876 × $0.14 = $122.64

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284

✓ Data-Driven Decision Making ▲ 3 2 1 RtI   Chapter 4

Based on the results of the Chapter Review/Test use the following resources to review skills.

Item	Lesson	Standard	Content Focus	Personal Math Trainer	Intervene with
1–3	4.1	5.NBT.A.2	Use patterns in the placement of the decimal point to multiply by a power of 10.	5.NBT.2	**R—4.1**
4	4.2	5.NBT.B.7	Use models to find the product of a decimal and a whole number.	5.NBT.7	**R—4.2**
5, 7, 8	4.3	5.NBT.B.7	Use place value to multiply a decimal and a whole number.	5.NBT.7	**R—4.3**
6, 17, 18	4.7	5.NBT.B.7	Use place value to determine the placement of a decimal in a product.	5.NBT.7	**R—4.7**
9–11	4.4	5.NBT.B.7	Multiply decimals to hundredths by whole numbers.	5.NBT.7	**R—4.4**
12–14, 16	4.5	5.NBT.B.7	Solve decimal multiplication problems.	5.NBT.7	**R—4.5**
15	4.6	5.NBT.B.7	Use models to find the product of two decimals to hundredths.	5.NBT.7	**R—4.6**
19–22	4.8	5.NBT.B.7	Multiply two decimals.	5.NBT.7	**R—4.8**

Key: R—Reteach (in the *Chapter Resources*)

9. Trevor is reading a book for a book report. Last week, he read 35 pages of the book. This week, he read 2.5 times as many pages as he read last week. How many pages of the book has Trevor read this week? Show your work.

```
   35          Check students' work.
 × 2.5
  175
+ 700          87.5 pages
  87.5
```

10. Jonah drives his car to and from work. The total length of the trip to and from work is 19.2 miles. In August, Jonah worked 21 days. How many miles in all did Jonah drive to and from work that month? Show your work.

```
   19.2        Jonah drove 403.2 miles in August.
 ×   21        Check students' work.
   192
+ 3840
  403.2
```

11. Use the numbers in the boxes to complete the number sentences. A number may be used more than once.

8.99	89.9	899

$29 \times 31 =$ **899**

$29 \times 3.1 =$ **89.9**

$0.29 \times 31 =$ **8.99**

$2.9 \times 31 =$ **89.9**

12. GO DEEPER Melinda, Zachary, and Heather went to the mall to shop for school supplies. Melinda spent $14.25 on her supplies. Zachary spent $2.30 more than Melinda spent. Heather spent 2 times as much money as Zachary spent. How much did Heather spend on school supplies?

$ **33.10**

13. The cost of admission to the Baytown Zoo is $10.50 for each senior citizen, $15.75 for each adult, and $8.25 for each child.

Part A

A family of 2 adults and 1 child plan to spend the day at the Baytown Zoo. How much does admission for the family cost? Explain how you found your answer.

$39.75; Possible explanation: I will find the cost of the two adult tickets by multiplying $2 \times \$15.75 = \$31.50$. Then, I will add the cost of the child's ticket. $\$31.50 + \$8.25 = \$39.75$

Part B

Describe another way you could solve the problem.

Possible description: I could add the cost of the three tickets. $\$15.75 + \$15.75 + \$8.25 = \$39.75$

Part C

What if 2 more tickets for admission are purchased? If the two additional tickets cost $16.50, determine what type of tickets the family purchases. Explain how you can determine the answer without calculating.

Two additional children's tickets are purchased. Possible explanation: Since senior citizen tickets cost about $10 each, then 2 tickets would cost about $20, which is too much. Adult tickets cost about $16 each, so 2 adult tickets would cost about $32, which is too much. Children's tickets cost about $8, and 2 tickets would be about $16 which is correct.

14. At a tailor shop, it costs $6.79 to shorten a pair of pants and 4 times as much to mend a dress. Choose the answer that correctly completes the statement.

| $19.47 |
| $27.16 |
| $33.95 |

It would cost Lisa _____ to shorten one pair of pants and mend one dress.

(answer circled: $33.95)

15. Shade the model to show 0.5×0.3. Then find the product.

$0.5 \times 0.3 =$ **0.15**

16. Mr. Evans is paid $9.20 per hour for the first 40 hours he works in a week. He is paid 1.5 times that rate for each hour after that.

Last week, Mr. Evans worked 42.25 hours. He says he earned $388.70 last week. Do you agree? Support your answer.

I disagree. Possible explanation: the earnings for 40 hours are $9.20 \times 40 = \$368$. $9.20 \times 1.5 = \$13.80$, which is the rate for each hour over 40. $\$13.80 \times 2.25 = \$31.05$. I added $\$31.05 + \$368 = \$399.05$. $\$399.05 > \$388.70$.

17. Explain how an estimate helps you to place the decimal point when multiplying 3.9×5.3.

Possible explanation: The estimate, $4 \times 5 = 20$, helps me know that the decimal point should be placed so that the answer is close to 20.

18. On Saturday, Ahmed walks his dog 0.7 mile. On the same day, Latisha walks her dog 0.4 times as far as Ahmed walks his dog. How far does Latisha walk her dog on Saturday?

0.28 mile(s)

19. For 19a–19d select True or False for each statement.

19a. The product of 1.5 and 2.8 is 4.2. ● True ○ False

19b. The product of 7.3 and 0.6 is 43.8. ○ True ● False

19c. The product of 0.09 and 0.7 is 6.3. ○ True ● False

19d. The product of 0.79 and 1.5 is 1.185. ● True ○ False

20. A builder buys 24.5 acres of land to develop a new community of homes and parks.

Part A

The builder plans to use 0.25 of the land for a park. How many acres will he use for the park?

6.125 acres

Part B

He buys a second property that has 0.62 times as many acres as the first property. How many acres of land are in the second property? Show your work.

```
   24.5        The second property has 15.190 or 15.19 acres
 × 0.62        of land.
   490
+ 14700
  15.190
```

21. Joaquin lives 0.3 miles from Keith. Layla lives 0.4 as far from Keith as Joaquin. How far does Layla live from Keith? Write an equation to solve.

$0.3 \times 0.4 = 0.12$ miles

22. Brianna is getting materials for a chemistry experiment. Her teacher gives her a container that has 0.15 liter of a liquid in it. Brianna needs to use 0.4 of this liquid for the experiment. How much liquid will Brianna use?

0.06 liter

Performance Assessment Task
Chapter 4

See the *Chapter Resources* for a Performance Task that assesses students' understanding of the content of this chapter.

For each task, you will find sample student work for each of the response levels in the task scoring rubric.

Performance Assessment Tasks may be used for portfolios.

Be sure to assign students Exercise 7 in the Personal Math Trainer. It features an animation or video to help students model and solve the problem.