

Objectives

- Develop an understanding of decimals: hundredths
- Rename 10 hundredths as 1 tenth
- Read and write decimals to the Hundredths place

Teacher Materials

- Money Kit
- Place Value Kit
- Decimal Place Value Pocket Chart Kit
- Fact family flashcards: 7-8-15, 6-9-15, and previously memorized facts

Student Materials

- Place Value Kit
- Decimal Place Value Pocket Chart Kit

Practice and Review**Count sets of money**

Display amounts of money using the Money Kit. Choose students to count aloud the amounts and other students to write the amounts for display. Remind the students to write a 0 to the left of the decimal point when the total amount is less than \$1.00 (e.g., \$0.78).

Fact families: 7-8-15, 6-9-15

Use fact family flashcards to review the addition and subtraction facts in these fact families and those from previous lessons.

Introduce the Lesson

There is more water than land on the surface of the earth. If the earth were divided into 10 parts, approximately 7 parts or 7 tenths would be water.

Teach for Understanding**Develop an understanding of hundredths****Rename 10 hundredths as 1 tenth**

1. Distribute the Place Value Kits. Display the red back of 1 hundred and the orange back of 1 ten. Remind the students that the large red square will represent 1 one and that the orange strip will represent 1 tenth.
2. Demonstrate as you guide the students in placing 10 orange tenths on the large red one. Lead in counting each tenth as you place it on the one: *1 tenth, 2 tenths, . . . 10 tenths*. Display the orange Tenth Square.
 - **Why are 10 tenths and 1 equal?** *because 10 smaller units equal 1 of the next larger unit; elicit that the 1 one was divided into 10 smaller units, and the 10 smaller units equal 1 one.*
 - **What do you think you can do to the tenths to make smaller units?** *Divide each tenth into 10 smaller units.*
3. Point out the purple back of each small red one. Instruct each student to place purple squares next to each other on 1 tenth until the tenth is covered.

- **How many purple squares did you need to equal 1 tenth?** *10*
Direct attention to the Tenth Square.
 - **Since you need 10 tenths to make 1 one and you need 10 purple squares to make 1 tenth, how many purple squares do you think you need to cover the 1 one? How do you know?** *Elicit 100; 10 rows of 10 purple squares equal 100 purple squares.*
Display the purple Hundredths Square.
 - **Since it takes 100 purple squares to equal 1 one, what do you think these smaller purple units are called?** *Elicit hundredths.*
4. Display the white Hundredths Mat. Demonstrate as you guide the students in placing 10 hundredths in the first column on the left of their white Hundredths Mat. Lead in counting each hundredth as you place it on the mat: *1 hundredth, 2 hundredths, . . . 10 hundredths*.
 - **How many hundredths equal 1 tenth?** *10*
Instruct each student to remove the 10 hundredths from his mat and replace it with 1 tenth. Demonstrate.
 5. Direct the students to clear their mats and display 17 hundredths on the left of the mat. Demonstrate each step.
 - **How many hundredths are shown?** *17 hundredths*
 - **How could you rename 17 hundredths?** *1 tenth and 7 hundredths*
Instruct the students to replace the column of 10 hundredths with 1 tenth.
Repeat the procedure for 21 hundredths *2 tenths and 1 hundredth*, 35 hundredths *3 tenths and 5 hundredths*, and 13 hundredths *1 tenth and 3 hundredths*.

Read and write a decimal to the Hundredths place

1. Distribute the Decimal Place Value Pocket Charts and display your Decimal Place Value Pocket Chart. Write *Standard Form* above your pocket chart and *Word Form* to the right of it.
 - **What pattern do you notice on this chart?** *Answers will vary, but elicit that the names of the places to the left and the right of the Ones place are similar as you move away from the Ones place.*
Remind the students that the Ones place is the center of the number system and that the Tens and Tenths, Hundreds and Hundredths, and so on, are balanced on either side of the Ones place.
2. Direct attention to the decimal point on the chart.
 - **What is the purpose of the decimal point?** *Possible answers: It marks the Ones place; it separates the whole numbers from the numbers that represent parts of a whole.*
 - **Which places on the pocket chart are used to represent whole numbers?** *the places to the left of the decimal point: Ones, Tens, Hundreds*
 - **Which places represent the parts of a whole?** *the places to the right of the decimal point: Tenths and Hundredths*
3. Write *one hundredth* for display below the *Word Form* heading. Explain that you can write this word form as a decimal because hundredths is a decimal place value that represents part of a whole.
Display 1 hundredth on the Hundredths Mat.
 - **How do you think you can “write” 1 hundredth in your pocket chart?** *Elicit by placing 1 in the Hundredths place and 0 in the Tenths and Ones places.*
Demonstrate as you guide the students in “writing” 1 hundredth in their pocket charts. Remind them that when there are no ones in a decimal, a zero is written in

Decimals

0.36
thirty-six hundredths

and

1.16
one and sixteen hundredths

Ones	Tenths	Hundredths
1	1	6

The decimal point marks the Ones place.

Write the decimal.

1. 0.48

2. 0.03

3. 0.30

4. 0.54

5. 0.87

6. 0.29

7. 0.07

8. 0.40

Color to show the decimal.

9. 0.27

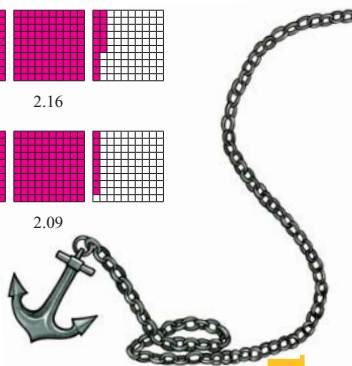
10. 2.16

11. 1.41

12. 2.09

Write the number in **standard form**.

13. eight and thirty-four hundredths = 8.34
14. five hundredths = 0.05



Write the decimal.

1. 0.57

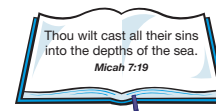
2. 0.05

3. 0.70
or 0.7

4. 0.12

5. 0.7

6. 0.5



Color to show the decimal.

7. 2.51

8. 1.32

Write the number in **standard form**.

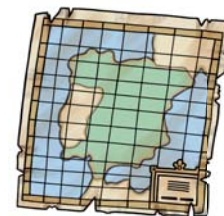
9. eight hundredths = 0.08
10. six tenths = 0.6
11. two and nine tenths = 2.9
12. seventy-three hundredths = 0.73

Round to the place with the greatest value.
Write the number.

13. 44,005 40,000
14. 173,850 200,000
15. 2,555 3,000

Draw a line to match the **standard form** to the **expanded form**.

16. 8,527 — 80,000 + 5,000 + 200 + 70 + 1
17. 805,217 — 800,000 + 5,000 + 200 + 10 + 7
18. 85,271 — 80,000 + 500 + 20 + 1
19. 80,521 — 8,000 + 500 + 20 + 7



Complete **Daily Review** on page 27.

the Ones place but the zero is not read. When writing a decimal such as 1 hundredth, you write a zero in a decimal place that has no value to correctly show the value of the entire number.

- Write 0.01 beside its word form. Lead the students in reading the decimal: *one hundredth*.
- Follow the same procedure for *three hundredths* **0.03**, *five hundredths* **0.05**, and *nine hundredths* **0.09**.
- Write *seventeen hundredths* below *Word Form* and display 17 hundredths on the Hundredths Mat.
 - Can you “write” 17 hundredths in the Hundredths place of your pocket chart? *no* Why? You can only write 1 digit in a place. What must you do? Rename 10 hundredths as 1 tenth. Demonstrate removing 10 of the 17 hundredths and placing 1 tenth in their place.
 - How do you think you can “write” 17 hundredths in your pocket chart? Elicit by placing 7 in the Hundredths place, 1 in the Tenths place, and 0 in the Ones place. Demonstrate as you guide the students in “writing” 17 hundredths in their pocket charts. Write 0.17 beside its word form. Read the decimal together: *seventeen hundredths*.
- Repeat the procedure for *twenty-five hundredths* **0.25**, and *thirty-one hundredths* **0.31**.
- Guide the students in completing numbers 1–8 on Worktext page 17.
- Display 2 large ones and also 11 hundredths on your Hundredths Mat. Direct the students to do the same.
 - What decimal is shown? **2 and 11 hundredths**

- Guide the students in renaming 10 of the hundredths as 1 tenth: 2 ones, 1 tenth, and 1 hundredth.
 - How can you write 2 and 11 hundredths in your pocket chart? Elicit that, because 10 hundredths were renamed as 1 tenth, you can put 2 in the Ones place, 1 in the Tenths place, and 1 in the Hundredths place.
- Write *two and eleven hundredths* below *Word Form* and 2.11 beside its word form. Point to the 2 and 11 as you lead in reading the decimal; emphasize the word *and*.
- Direct each student to write the standard form for 2 and 11 hundredths in his pocket chart.
 - What does this decimal represent? **2 ones and 11 hundredths or 2 ones, 1 tenth, 1 hundredth**
- Repeat the procedure for 5 and 34 hundredths **5.34** and 1 and 5 hundredths **1.05**.
- Guide the students in completing numbers 9–16 on Worktext page 17.

Worktext pages 17–18, 27 (h)