

Name \_\_\_\_\_

**Decimals and Place Value****Essential Question** How can you use place value to read, write, and represent decimals?**CONNECT** Decimals, like whole numbers, can be written in standard form, word form, and expanded form.**UNLOCK the Problem** REAL WORLD

One of the world's tiniest frogs lives in Asia. Adult males range in length from about 1.06 to 1.28 centimeters, about the size of a pea.

You can use a place-value chart to help you understand decimals. Whole numbers are to the left of the decimal point in the place-value chart, and decimal amounts are to the right of the decimal point. The value of each place is one-tenth of the place to its left.

**Key** Use a place-value chart.

Write each of the decimals on a place-value chart. Be sure to line up each place and the decimal point.

ONES		TENTHS	HUNDREDTHS
1	.	0	6
1	.	2	8

The place-value position of the digit 8 in 1.28 is hundredths. The value of the digit 8 in 1.28 is 8 hundredths, or  $8 \times \frac{1}{100}$  or 0.08.

You can also write 1.28 in word form and expanded form.

**Word form:** one and twenty-eight hundredths

**Expanded form:**  $1 + 0.2 + 0.08$

- What decimals do you see in the problem?  
\_\_\_\_\_
- The numbers 1.06 and 1.28 are between which two whole numbers?  
\_\_\_\_\_

**Math Talk** Explain why 1.28 is not one and twenty-eight tenths in word form.

**Try This!** Use place value to read and write the decimal.

**Standard Form:** \_\_\_\_\_

**Word Form:** three and forty-six hundredths

**Expanded Form:**  $3 + \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$

## Share and Show



1. Write the decimal 4.06 in word form and expanded form.

**Word Form:** \_\_\_\_\_

**Expanded Form:** \_\_\_\_\_

Read and write the decimal in two other forms.

2. five and two tenths

\_\_\_\_\_

3.  $6 + 0.8 + 0.09$

\_\_\_\_\_

\_\_\_\_\_

## On Your Own

Read and write the decimal in two other forms.

4. seven and three hundredths:

\_\_\_\_\_

5.  $2 + 0.3 + 0.01$

\_\_\_\_\_

\_\_\_\_\_

Write the value of the underlined digit.

6. 4.56

\_\_\_\_\_

7. 5.09

\_\_\_\_\_

8. 7.4

\_\_\_\_\_

9. 1.32

\_\_\_\_\_

## Problem Solving



10. James is 1.63 meters tall. Write James's height in word form.

**Explain** how you found your answer.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

11. Ani was told to write the number four and eight hundredths. She wrote 4.8. **Explain** whether or not you think Ani is correct. If you think she is not correct, write the number correctly.

\_\_\_\_\_

\_\_\_\_\_