Lesson 1-3

Wednesday, August 14, 2019 10:11 AM

Decimals to Thousandths

MB 17

Name _____

Solve

Lesson 1-3
Decimals to Thousandths

Solve & Share Jennie is training for a race. On Tuesday she finished her sprint 0.305 second faster than she did on Monday. How can you explain the meaning of 0.305? ***Solve this problem any way you choose.***

I can ...
read and write decimals to the thousandths.

I can also look for patterns to solve problems.

You can use structure. Use what you know about place value to help solve the problem. Show your work!

0.305 is a decimal number between 0 and 1. The whole number is broken into 1,000 equal parts and 305 of those parts are used.

$\frac{305}{1000} = 0.305$; Three hundred five thousandths

Look Back! Construct Arguments Gabriel says that there are 5 hundredths in 0.305. Do you agree or disagree? Explain.

Disagree; there is a zero in the hundredths place. The 5 is in the thousandths place.

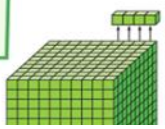
Digital Resources at PearsonRealize.com Topic 1 | Lesson 1-3 17

Learn Glossary

Essential Question How Can You Read and Write Decimals to the Thousandths?

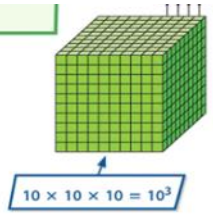
A

A box is filled with 1,000 cubes. Amy picks out 4 cubes. How can you represent 4 out of 1,000 cubes as a decimal?



You can write 4 out of 1,000 as the fraction $\frac{4}{1,000}$.

as a decimal?



B The number name for $\frac{4}{1,000}$ is four thousandths. A decimal place-value chart can help you determine the decimal. Notice that the thousandths place is three places to the right of the decimal point.

ones		tenths	hundredths	thousandths
0	.	0	0	4

So, $\frac{4}{1,000}$ can be represented by the decimal 0.004.

C How can $\frac{444}{1,000}$ be represented by a decimal? $\frac{444}{1,000}$ is read as *four hundred forty-four thousandths* and represented by the decimal 0.444.

ones		tenths	hundredths	thousandths
0	.	4	4	4

$\times 10$ $\times \frac{1}{10}$

The value of the digit 4 in the hundredths place has 10 times the value of the digit 4 in the thousandths place and $\frac{1}{10}$ the value of the digit 4 in the tenths place.

Convince Me! Reasoning How is 0.004 the same as and different from 0.444?

They both have the digit 4 in the thousandths place. 0.444 has 4's in the tenths and hundredths places and 0.004 does not.

Name _____

Practice Buddy Tools Assessment

Guided Practice

Do You Understand?

1. **Be Precise** If four cubes are pulled from the box on the previous page, how would you write the fraction representing the cubes that are left? the decimal representing the cubes that are left?

$\frac{996}{1000}$ 0.996

2. **Reasoning** 0.3 is 10 times as great as what decimal? 0.003 is $\frac{1}{10}$ of what decimal?

0.3 is 10x greater than 0.03.

0.003 is $\frac{1}{10}$ of 0.03

Do You Know How?

In **3–6**, write each decimal as a fraction.

3. 0.001 = $\frac{1}{1000}$ 0.05 = $\frac{5}{100}$

5. 0.512 = $\frac{512}{1,000}$ 0.309 = $\frac{309}{1000}$

In **7–10**, write each fraction as a decimal.

7. $\frac{2}{1,000}$ = 0.002 $\frac{34}{100}$ = 0.34

9. $\frac{508}{1,000}$ = 0.508 $\frac{99}{100}$ = 0.99

Complete # 11, 15, 19, 23, 31 & 34

11. 0.007 $\frac{7}{1000}$

11. 0.007 $\frac{7}{1,000}$

15. 0.832 $\frac{832}{1,000}$

19. $\frac{434}{1,000}$ 0.434

23. $\frac{309}{1,000}$ 0.309

31. **Higher Order Thinking** Kelly said that $\frac{97}{1,000}$ can be written as 0.97. Is she correct? Explain. No. Kelly wrote $\frac{97}{100}$. She forgot the zero in the tenths place. She should have written 0.097.

34. 0.04 is 10 times as great as which decimal?

Ⓐ 0.4

Ⓑ 0.1

Ⓒ 0.004

Ⓓ 0.001