Video   Practice   Tools   Games

Another Look!

Patterns can help you read and write decimals.

Decimal	Fraction	Number Name
0.1	$\frac{1}{10}$	One tenth
0.01	$\frac{1}{100}$	One hundredth
0.001	$\frac{1}{1,000}$	One thousandth

0.01 is 10 times as great as 0.001.

0.01 is $\frac{1}{10}$ as great as 0.1.

0.1 is 10 times as great as 0.01.

The value of each place-value position is 10 times the value of the place to its right and $\frac{1}{10}$ the value of the place to its left.

1. 0.08 is 10 times as great as _____.

2. 0.002 is $\frac{1}{10}$ of _____.

3. 0.5 is 10 times as great as _____.

4. 0.07 is $\frac{1}{10}$ of _____.

In **5–12**, write each decimal as a fraction.

5. 0.009

6. 0.105

7. 0.2

8. 0.025

9. 0.563

10. 0.31

11. 0.6

12. 0.004

In **13–20**, write each fraction as a decimal.

13. $\frac{8}{1,000}$

14. $\frac{63}{100}$

15. $\frac{984}{1,000}$

16. $\frac{29}{1,000}$

17. $\frac{111}{1,000}$

18. $\frac{3}{10}$

19. $\frac{6}{1,000}$
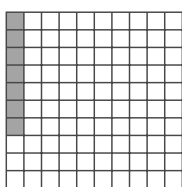
20. $\frac{5}{1,000}$

21. Number Sense Tommy is beginning a science experiment in the lab. The instructions call for 0.322 kilogram of potassium. Write 0.322 as a fraction.

22. Mt. McKinley is the highest mountain peak in North America with an elevation of 20,320 feet. What is the value of the digit 3 in 20,320?

23. Construct Arguments Jorge said that 0.029 can be written as $\frac{29}{100}$. Is he correct? Explain.

24. The area of the continent of North America is about 9,540,000 square miles. Write 9,540,000 in expanded form using exponents to show powers of 10.

25. What part of the entire square is shaded? Write your answer as a fraction and as a decimal.

26. Higher Order Thinking Write the fractions $\frac{5}{10}$, $\frac{5}{100}$, and $\frac{5}{1,000}$ as decimals. How are the decimals related?

27. 🅐🅩 **Vocabulary** Complete the sentence using one of the words below.

power   base   exponent

The number 1,000,000 is a(n) _____ of 10.

28. Algebra In three months, Harold watched a total of 40 movies. If he watched 12 movies in June and 13 movies in July, how many movies did he watch in August? Write an equation using the variable a to model your work.

☑ **Assessment Practice**

29. 0.003 is $\frac{1}{10}$ of which decimal?

(A)   0.3

(B)   0.03

(C)   0.33

(D)   0.333

30. 0.8 is 10 times as great as which decimal?

(A)   0.08

(B)   0.88

(C)   0.008

(D)   0.888