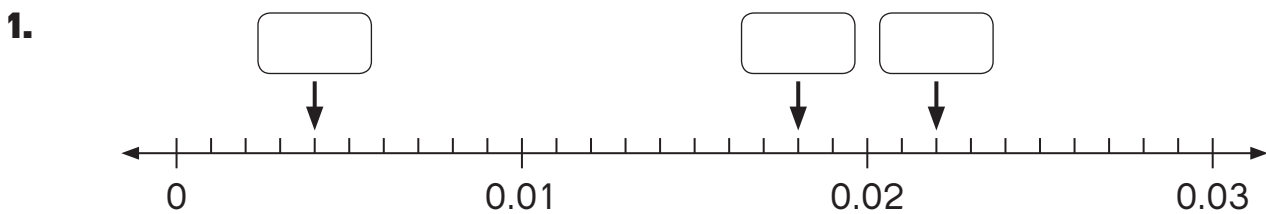
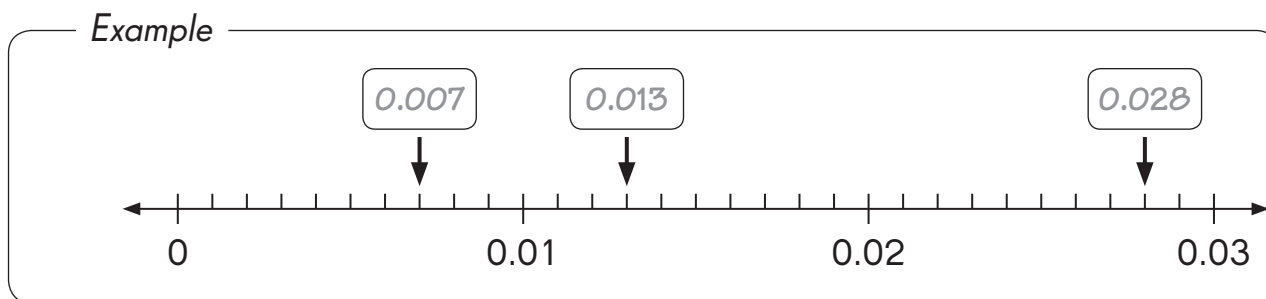


CHAPTER
8

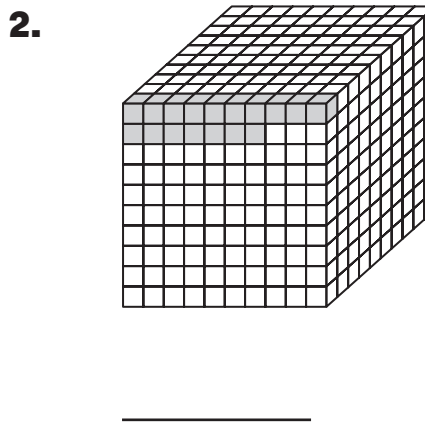
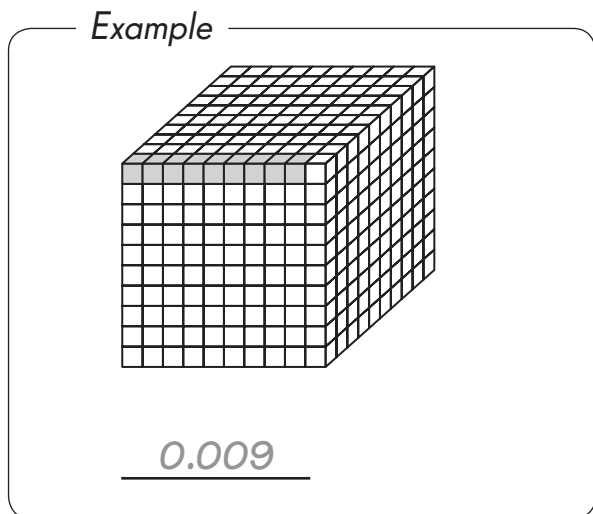
Decimals

Worksheet 1 Understanding Thousandths

Write the decimal shown by each arrow.



Find the decimal that the shaded part represents.

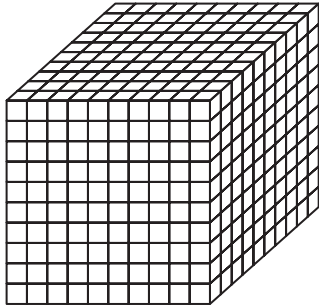


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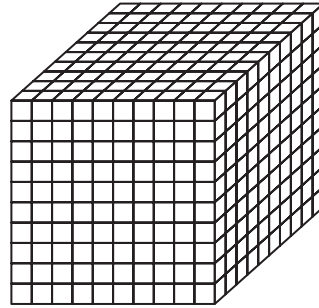
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Shade the correct number of cubes to show each decimal.

3. 0.004



4. 0.028



Complete the place-value chart to show the decimal.

Example

0.016

Ones	Tenths	Hundredths	Thousandths
		●	●●● ●●●

5. 0.258

Ones	Tenths	Hundredths	Thousandths

Name: _____

Date: _____

Write the decimal shown in the place-value chart.

Example

Ones	Tenths	Hundredths	Thousandths
		○ ○ ○	○ ○ ○ ○

0.034

6.

Ones	Tenths	Hundredths	Thousandths
○	○ ○ ○ ○	○ ○	○ ○ ○

Complete.

Example

33 hundredths = 3 tenths 3 hundredths

7. 70 thousandths = _____ hundredths

8. 5 tenths 4 hundredths = _____ thousandths

9. 6 hundredths = _____ thousandths

10. 375 thousandths = _____ hundredths _____ thousandths

Name: _____

Date: _____

Complete.

Example

$$4 \text{ hundredths } 9 \text{ thousandths} = \underline{0.049}$$

11. 10 hundredths 7 thousandths = _____

12. 2 hundredths 15 thousandths = _____

13. 38 hundredths 13 thousandths = _____

14. 3 hundredths 8 thousandths = _____

Write each fraction as a decimal.

Example

$$\frac{16}{1000} = \underline{0.016}$$

$\frac{16}{1000}$ is equivalent to 0.016.



15. $\frac{7}{1000} =$ _____

16. $\frac{219}{1000} =$ _____

17. $\frac{35}{1000} =$ _____

18. $\frac{1476}{1000} =$ _____

Name: _____

Date: _____

Write each mixed number as a decimal.

Example

$$3\frac{16}{1000} = \underline{3.016}$$

19. $2\frac{5}{1000} =$ _____

20. $4\frac{391}{1000} =$ _____

21. $3\frac{56}{1000} =$ _____

22. $1\frac{108}{1000} =$ _____

**4.052 can be written in expanded form as 4 ones and 0 tenths
5 hundredths 2 thousandths.**

Write each decimal in expanded notation.

23. $2.815 =$ _____ ones and _____ tenths _____ hundredth
_____ thousandths

24. $2.409 =$ _____ ones and _____ tenths _____ hundredths
_____ thousandths

25. $7.093 =$ _____ ones and _____ tenths _____ hundredths
_____ thousandths

Name: _____

Date: _____

**6.359 can be written in expanded form as $6 + 0.3 + 0.05 + 0.009$.
Write each decimal in expanded notation.**

26. $4.273 =$ _____ $+$ _____ $+$ _____ $+$ _____

27. $1.503 =$ _____ $+$ _____ $+$ _____

28. $9.017 =$ _____ $+$ _____ $+$ _____

2.478 can be written in expanded form as $2 + \frac{4}{10} + \frac{7}{100} + \frac{8}{1000}$.

Write each decimal in expanded notation.

29. $3.165 = 3 + \frac{\square}{10} + \frac{\square}{100} + \frac{\square}{1000}$

30. $5.294 =$ _____ $+$ $\frac{2}{\square}$ $+$ $\frac{9}{\square}$ $+$ $\frac{4}{\square}$

31. $4.758 =$ _____ $+$ $\frac{\square}{10}$ $+$ $\frac{5}{\square}$ $+$ $\frac{\square}{1000}$

32. $6.094 =$ _____ $+$ $\frac{\square}{100}$ $+$ $\frac{4}{\square}$

33. $7.506 =$ _____ $+$ $\frac{\square}{10}$ $+$ $\frac{\square}{\square}$

Name: _____

Date: _____

Fill in the blanks.

In 4.702:

- 34.** The digit 7 is in the _____ place.
- 35.** The digit 4 is in the _____ place.
- 36.** The digit 2 is in the _____ place.
- 37.** The digit 0 is in the _____ place.

In 6.908:

- 38.** The value of the digit 9 is _____.
- 39.** The value of the digit 0 is _____.
- 40.** The value of the digit 8 is _____.
- 41.** The value of the digit 6 is _____.

In 7.035:

- 42.** The digit 3 stands for _____.
- 43.** The digit 0 is in the _____ place.
- 44.** The digit 5 is in the _____ place.
- 45.** The value of the digit 7 is _____.

Name: _____

Date: _____

Solve.

- 46.** The digit 9 stands for 9 ones.
The digit 7 is in the tenths place.
The value of the digit 4 is 0.04.
The digit 2 is in the thousandths place.
What is the decimal?

- 47.** The value of the digit 8 is 0.8.
The digit 1 stands for 1 hundredth.
The digit 5 is in the ones place.
The value of the digit 4 is 0.004.
Find the decimal.

Worksheet 2 Comparing and Rounding Decimals

Use the place-value chart to compare the decimals.
Which decimal is greater?

Example

	Ones	Tenths	Hundredths	Thousandths
0.054	0	0	5	4
0.54	0	5	4	0

Compare the ones. Are they the same? Yes / No Yes

Compare the tenths. Are they the same? Yes / No No

5 tenths > 0 tenths

0.54 is greater than 0.054.

1.

	Ones	Tenths	Hundredths	Thousandths
0.108				
0.12				

Compare the ones. Are they the same? Yes / No _____

Compare the tenths. Are they the same? Yes / No _____

Compare the hundredths. Are they the same? Yes / No _____

_____ hundredths > _____ hundredths

_____ is greater than _____.

Name: _____

Date: _____

Write the greater decimal.

- 2. 3.4 or 3.9 _____
- 3. 16.23 or 16.71 _____
- 4. 105.67 or 105.01 _____
- 5. 3.03 or 3.19 _____
- 6. 99.89 or 98.98 _____
- 7. 0.859 or 0.891 _____
- 8. 133.2 or 132.0 _____

**Use the place-value chart to compare the decimals.
Which decimal is the least?**

Example

	Ones	Tenths	Hundredths	Thousandths
2.375	2	3	7	5
2.357	2	3	5	7
2.385	2	3	8	5

Compare the ones. Are they the same? Yes / No Yes

Compare the tenths. Are they the same? Yes / No Yes

Compare the hundredths. Are they the same? Yes / No No

8 hundredths > 7 hundredths > 5 hundredths

The least decimal is 2.357.

Name: _____

Date: _____

9.

	Ones	Tenths	Hundredths	Thousandths
4.857		•		
4.852		•		
4.854		•		

Compare the ones. Are they the same? Yes / No _____

Compare the tenths. Are they the same? Yes / No _____

Compare the hundredths. Are they the same? Yes / No _____

Compare the thousandths. Are they the same? Yes / No _____

_____ thousandths > _____ thousandths > _____ thousandths

The least decimal is _____.

**Use the place-value chart to compare the decimals.
Which decimal is the greatest?**

Example

	Ones	Tenths	Hundredths
3.17	3	• 1	7
3.08	3	• 0	8
3.42	3	• 4	2

Compare the ones. Are they the same? Yes / No Yes

Compare the tenths. Are they the same? Yes / No No

4 tenths > 1 tenth > 0 tenths

The greatest decimal is 3.42.

Name: _____

Date: _____

10.

	Ones	Tenths	Hundredths	Thousandths
5.273		•		
5.291		•		
5.248		•		

Compare the ones. Are they the same? Yes / No _____

Compare the tenths. Are they the same? Yes / No _____

Compare the hundredths. Are they the same? Yes / No _____

_____ hundredths > _____ hundredths > _____ hundredths

The greatest decimal is _____.

Cross out the greatest decimal and circle the least.

11. 1.49 1.418 1.814

12. 0.37 0.312 0.366

13. 8.01 8.108 8.181

14. 21.71 27.1 21.07

15. 2.59 2.81 2.95

16. 7.12 7.22 7.17

17. 0.604 0.641 0.601

Name: _____

Date: _____

Order the decimals from least to greatest.

19. 0.103, 0.311, 0.131 _____

20. 5.14, 0.15, 1.44 _____

21. 7.013, 7.131, 7.033 _____

22. 9.090, 9.900, 9.009 _____

23. 0.081, 0.118, 0.180 _____

24. 3.963, 3.936, 3.639 _____

25. 9.449, 4.949, 9.494 _____

26. 6.02, 2.06, 0.62 _____

Use the place-value chart to order the decimals from greatest to least.

Example

	Ones		Tenths	Hundredths	Thousandths
0.426	0	•	4	2	6
0.5	0	•	5	0	0
0.19	0	•	1	9	0

Compare the ones. Are they the same? Yes / No Yes

Compare the tenths. Are they the same? Yes / No No

0.5, 0.426, 0.19
 greatest least

Name: _____

Date: _____

27.

	Ones	Tenths	Hundredths	Thousandths
2.396		.		
1.431		.		
2.302		.		

Compare the ones. Are they the same? Yes / No _____

Compare the tenths. Are they the same? Yes / No _____

Compare the hundredths. Are they the same? Yes / No _____

_____, _____, _____
greatest, _____, least

Order the decimals from greatest to least.

28. 21.12, 12.21, 12.12 _____

29. 0.101, 0.011, 0.110 _____

30. 4.63, 4.36, 4.06 _____

Show the location of each decimal by drawing an X on the number line. Then round the decimal to the nearest hundredth.

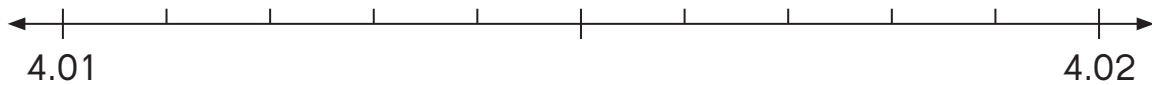
31.
0.14 0.15

0.148 rounded to the nearest hundredth is _____.

Name: _____

Date: _____

32.



4.013 rounded to the nearest hundredth is _____.

Round each decimal to the nearest whole number, nearest tenth, and nearest hundredth.

	Decimal	Rounded to the Nearest		
		Whole Number	Tenth	Hundredth
33.	0.147			
34.	2.564			
35.	6.325			

Fill in the blanks.

36. I am thinking of a decimal. It is 2.77 when rounded to the nearest hundredth. It is smaller than 2.77. What could this decimal be?

37. 1 square meter is equal to 1.195 square yards. Round 1.195 square yards to the nearest hundredth.

Name: _____

Date: _____

Worksheet 3 Rewriting Decimals as Fractions and Mixed Numbers

Rewrite each decimal as a fraction or mixed number in simplest form.

Example

$$0.007 = \frac{7}{1000}$$

1. 0.8 = _____
2. 5.9 = _____
3. 6.04 = _____
4. 0.47 = _____
5. 0.072 = _____
6. 7.015 = _____
7. 2.436 = _____
8. 2.037 = _____
9. 4.008 = _____
10. 16.15 = _____
11. 0.754 = _____

Name: _____

Date: _____

12. $0.005 =$ _____

13. $4.36 =$ _____

14. $0.02 =$ _____

15. $12.06 =$ _____

16. $11.008 =$ _____

17. $15.052 =$ _____

18. $17.814 =$ _____

19. $19.3 =$ _____

20. $9.405 =$ _____

21. $0.108 =$ _____

22. $4.7 =$ _____

23. $0.3 =$ _____

24. $1.345 =$ _____

25. $0.539 =$ _____