

# Investigating Decimals

Write any number that comes between the two given numbers.

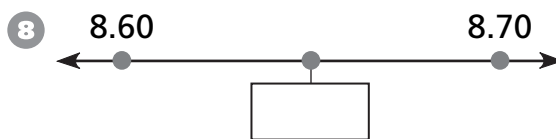
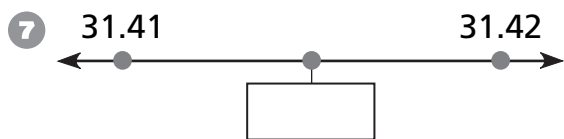
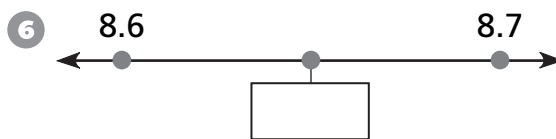
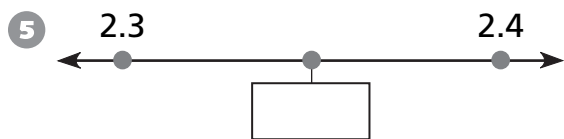
1 10 \_\_\_\_\_ 11

2 8.7 \_\_\_\_\_ 8.8

3 0.5 \_\_\_\_\_ 0.6

4 9.18 \_\_\_\_\_ 9.19

Write the number that comes halfway between the two given numbers.



## Test Prep

9 Which number could **not** be a common denominator for fractions with denominators of 6 and 8?

- A. 24
- B. 12
- C. 96
- D. 48

10 The table shows the prices for tickets to a museum. How much will it cost for a class of 23 students?

Tickets	3	7	11	15
Prices	\$8.25	\$19.25	\$30.25	\$41.25

- A. \$57.25
- B. \$62.25
- C. \$63.25
- D. \$68.50

# Comparing and Ordering Decimals

Write  $>$ ,  $<$ , or  $=$  to complete the number sentences.

1  $5.2 \bigcirc 5.18$

2  $17.04 \bigcirc 17.040$

3  $29.604 \bigcirc 29.8$

4  $63.406 \bigcirc 63.60$

5  $89.8 \bigcirc 89.088$

6  $1.976 \bigcirc 19.760$

7  $360.48 \bigcirc 360.481$

8  $46.55 \bigcirc 46.550$

9  $101.6 \bigcirc 101.59$

10 Write the numbers in order from least to greatest.



## Test Prep

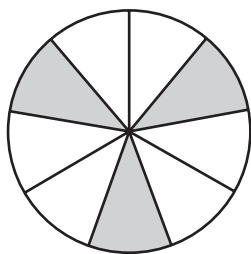
11 Which is **not** a fraction for the shaded part?

A.  $\frac{1}{3}$

B.  $\frac{2}{6}$

C.  $\frac{3}{9}$

D.  $\frac{3}{6}$



12 On Sunday, Ben started an exercise program by lifting weights. On Monday, he went for a run. He will run every third day and lift weights every fifth day. On which day of the week will he do both activities together for the first time?

A. Tuesday

C. Thursday

B. Wednesday

D. Friday

# Large and Small Numbers

Write the numbers in order from greatest to least.

1

$23,450,061$	$23,540,610$	$23,456,100$	$23,450,601$
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2

$5.5$	$5.21$	$5.1$	$5.12$	$5.8$
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3

$10.05$	$10.500$	$10.005$	$10.055$
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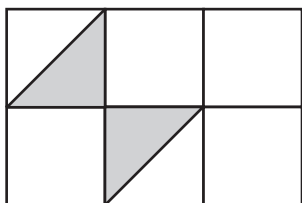


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## Test Prep

- 4 Which fraction matches the shaded part of the sketch?



- |                   |                  |
|-------------------|------------------|
| A. $\frac{2}{12}$ | C. $\frac{2}{8}$ |
| B. $\frac{2}{10}$ | D. $\frac{2}{6}$ |

- 5 A room has 31 rows of 31 chairs. One row is added, and one chair is removed from each row. Which is the only expression that does **not** show how many chairs there will be?

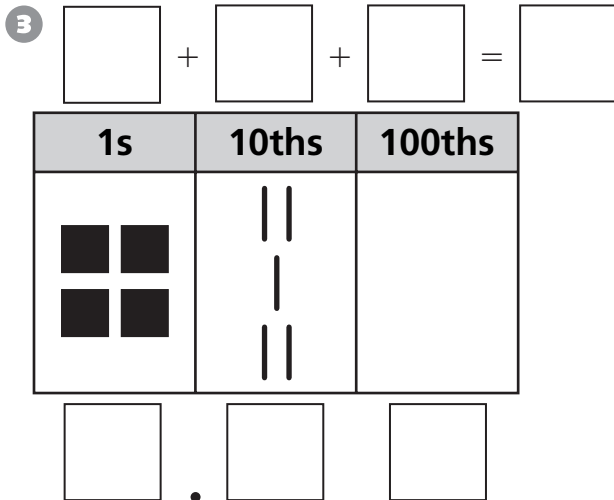
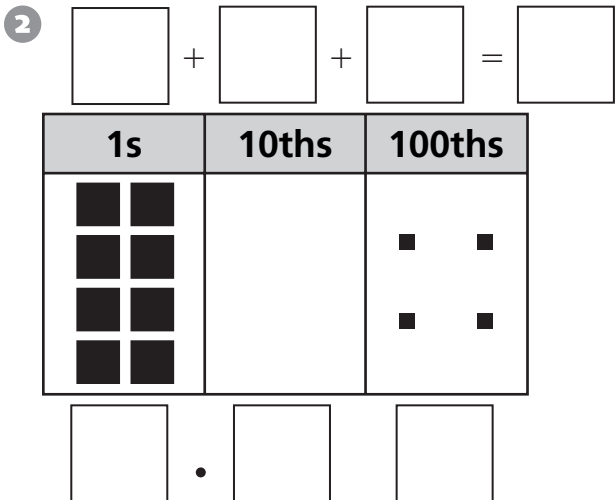
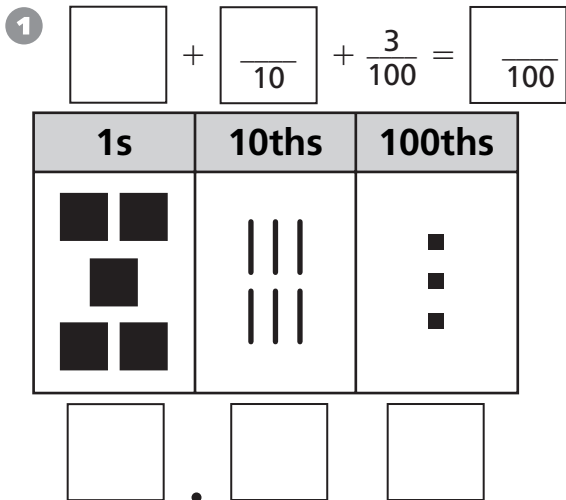
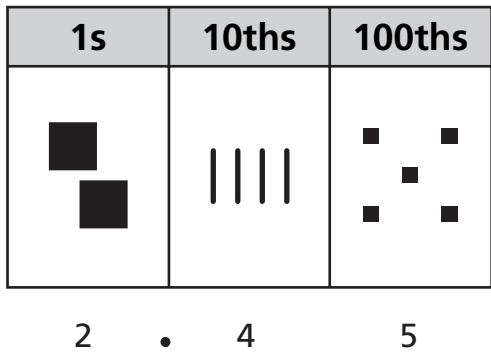
- |                               |
|-------------------------------|
| A. $(31 + 1) \times (31 - 1)$ |
| B. $31 \times 31 - 1$         |
| C. $(31 - 1) \times 31$       |
| D. $32 \times 30$             |

# Connecting Decimals to Fractions

Fill in the fraction notation (above the picture) and decimal notation (below the picture) to match the blocks.

**Example**

$$2 + \frac{4}{10} + \frac{5}{100} = 2\frac{45}{100}$$



## Test Prep

- 4 Lucie swam 50 meters in more than 31.5 seconds, but less than 31.6 seconds. Name three different answers for how long she could have taken. Explain your answer.

\_\_\_\_\_

\_\_\_\_\_

# Connecting Decimals to Other Fractions

Write equivalent fractions and decimals.

1  $\frac{1}{5} = \frac{\square}{10} = \underline{\hspace{1cm}}0.$

2  $\frac{4}{5} = \frac{\square}{10} = \underline{\hspace{1cm}}0.$

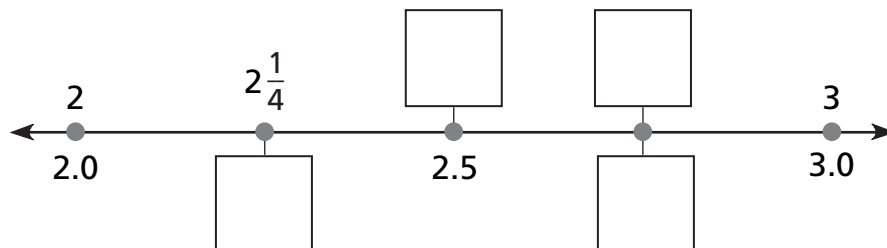
3  $\frac{1}{4} = \frac{\square}{10} = \underline{\hspace{1cm}}0.$

4  $\frac{3}{4} = \frac{\square}{100} = \underline{\hspace{1cm}}0.$

5  $\frac{1}{20} = \frac{\square}{100} = \underline{\hspace{1cm}}0.$

6  $\frac{3}{20} = \frac{\square}{100} = \underline{\hspace{1cm}}0.$

- 7 Write the mixed numbers above the number line and the matching decimals below.

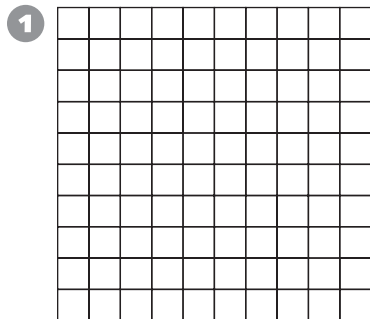


## Test Prep

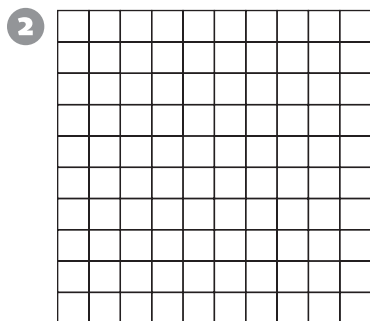
- 8 Erika has \$15.09. Which could **NOT** be true?
- A. She has 12 whole dollars, 26 tenths of a dollar, and 49 hundredths of a dollar.
  - B. She has 12 dollars, 26 dimes, and 49 pennies.
  - C. She has 12 dollars, 10 quarters, 5 dimes, and 9 pennies.
  - D. She has 15 dollars, and 9 tenths of a dollar.
- 9 Jackie has 24 markers and 40 pencils to put into bags. Each bag must have the same number of markers and the same number of pencils. What is the greatest number of bags she can fill if she uses all the markers and pencils?
- A. 2
  - B. 3
  - C. 8
  - D. 12

# Estimating Decimals Using Familiar Fractions

Make designs by shading in some of the hundredths. Record the fractions and decimals.



$$\frac{\square}{100} = 0. \underline{\hspace{2cm}}$$

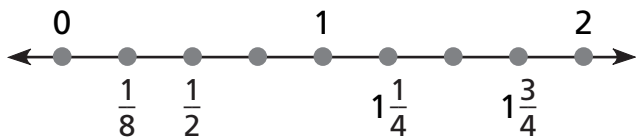


$$\frac{\square}{100} = 0. \underline{\hspace{2cm}}$$



## Test Prep

- 3 Which point is incorrectly labeled on the number line?



- A.  $\frac{1}{8}$                       C.  $1\frac{1}{4}$   
B.  $\frac{1}{2}$                          D.  $1\frac{3}{4}$

- 4 A bug is sitting at the point above  $1\frac{3}{4}$  on the number line. It starts crawling toward 0 at the rate of  $\frac{1}{4}$  unit every 10 seconds. How long will it take it to reach 0?

- A. 50 seconds  
B. 1 minute  
C. 1 minute 10 seconds  
D. 1 minute 20 seconds

# Estimating Decimals Using Rounding

Round each number to the nearest whole number.

1

42.83  $\rightarrow$  \_\_\_\_\_

2

160.09  $\rightarrow$  \_\_\_\_\_

3

109.6  $\rightarrow$  \_\_\_\_\_

Round each number to the nearest tenth.

4

2.03  $\rightarrow$  \_\_\_\_\_

5

8.75  $\rightarrow$  \_\_\_\_\_

6

16.98  $\rightarrow$  \_\_\_\_\_

Round each number to the nearest hundredth.

7

4.616  $\rightarrow$  \_\_\_\_\_

8

9.002  $\rightarrow$  \_\_\_\_\_

9

12.123  $\rightarrow$  \_\_\_\_\_



## Test Prep

- 10 Ryan bought four items that cost \$12.29, \$16.45, \$1.99, and \$9.49.

Which is the **best** estimate of the amount he paid?

- A. between \$33 and \$35
- B. between \$35 and \$37
- C. between \$37 and \$39
- D. between \$39 and \$41

- 11 A factory produced 5,712 snacks. Which is the only way the snacks **cannot** be packaged if they are all used?

- A. packages of 9
- B. packages of 6
- C. packages of 3
- D. packages of 2

# Adding with Decimals

Complete the number sentences.

$$\textcircled{1} \quad 6 + 4.6 = \underline{\hspace{2cm}}$$

$$6.7 + 4 = \underline{\hspace{2cm}}$$

$$6.7 + 4.6 = \underline{\hspace{2cm}}$$

$$67 + 46 = \underline{\hspace{2cm}}$$

$$0.67 + 0.46 = \underline{\hspace{2cm}}$$

$$\textcircled{2} \quad 5.3 + 2 = \underline{\hspace{2cm}}$$

$$5 + 2.8 = \underline{\hspace{2cm}}$$

$$\begin{array}{r} 5.3 \\ + 2.8 \\ \hline \end{array} \quad \begin{array}{r} 53 \\ + 28 \\ \hline \end{array} \quad \begin{array}{r} 0.53 \\ + 0.28 \\ \hline \end{array}$$

$$\textcircled{3} \quad 4.6 + 3 = \underline{\hspace{2cm}}$$

$$46 + 38 = \underline{\hspace{2cm}}$$

$$4 + 3.8 = \underline{\hspace{2cm}}$$

$$\begin{array}{r} 0.46 \\ + 0.38 \\ \hline \end{array} \quad \begin{array}{r} 0.046 \\ + 0.038 \\ \hline \end{array} \quad \begin{array}{r} 0.46 \\ + 3.8 \\ \hline \end{array}$$

$$4.6 + 3.8 = \underline{\hspace{2cm}}$$

$$4.6 + 0.38 = \underline{\hspace{2cm}}$$



## Test Prep

- $\textcircled{4}$  Renee's kitchen floor is a rectangle greater than 60 square feet, but less than 70 square feet in area. Each dimension of the floor is greater than 6 feet and the floor is perfectly tiled with 1-foot square tiles, none of which have been cut. What could the area be? Explain.

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# Subtracting with Decimals

Complete the number sentences.

$1 \quad 6.7 - 4 = \underline{\hspace{2cm}}$

$6 - 4.6 = \underline{\hspace{2cm}}$

$6.7 - 4.6 = \underline{\hspace{2cm}}$

$67 - 46 = \underline{\hspace{2cm}}$

$0.67 - 0.46 = \underline{\hspace{2cm}}$

$2 \quad 5.3 - 2 = \underline{\hspace{2cm}}$

$5.3 - 2.8 = \underline{\hspace{2cm}}$

$$\begin{array}{r} 53 \\ - 28 \\ \hline \end{array} \qquad \begin{array}{r} 0.53 \\ - 0.28 \\ \hline \end{array} \qquad \begin{array}{r} 5 \\ - 2.8 \\ \hline \end{array}$$

$3 \quad 4.4 - 3 = \underline{\hspace{2cm}}$

$4 - 3.3 = \underline{\hspace{2cm}}$

$4.4 - 3.3 = \underline{\hspace{2cm}}$

$44 - 33 = \underline{\hspace{2cm}}$

$0.44 - 0.33 = \underline{\hspace{2cm}}$

$4 \quad 8.2 - 6 = \underline{\hspace{2cm}}$

$8 - 6.8 = \underline{\hspace{2cm}}$

$$\begin{array}{r} 8.2 \\ - 6.8 \\ \hline \end{array} \qquad \begin{array}{r} 82 \\ - 68 \\ \hline \end{array} \qquad \begin{array}{r} 0.82 \\ - 0.68 \\ \hline \end{array}$$



## Test Prep

- 5 Seven of the 56 musicians in the Somer School band are drummers. The same fraction of the Euclid School band are drummers. Euclid has 10 drummers. How many musicians are in the Euclid School band? Explain how you found your answer.

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# Adding and Subtracting Decimals

Add or subtract.

1  $2.5 + 3.7 =$  \_\_\_\_\_

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2  $8.16 + 1.3 =$  \_\_\_\_\_

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3  $5.2 + 0.85 =$  \_\_\_\_\_

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4  $12.00 - 2.5 =$  \_\_\_\_\_

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5  $9.9 - 6.09 =$  \_\_\_\_\_

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6 
$$\begin{array}{r} 25.9 \\ - 17.82 \\ \hline \end{array}$$

7 
$$\begin{array}{r} 0.973 \\ + 3.6458 \\ \hline \end{array}$$

Estimate.

8  $5.007 + 6.8395$  \_\_\_\_\_

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12  $17.631 - 5.9$  \_\_\_\_\_

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9  $2.83 - 0.009$  \_\_\_\_\_

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13  $8.025 + 1.75$  \_\_\_\_\_

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10  $1.56 + 1.47$  \_\_\_\_\_

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14  $35.72 + 64.082$  \_\_\_\_\_

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11  $20.85 - 9.999$  \_\_\_\_\_

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15  $56.987 - 42.9$  \_\_\_\_\_

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## Test Prep

16 Explain how to determine if 0.087 is equivalent to 0.0807. \_\_\_\_\_

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# Multiplying with Decimals

First, circle the best estimate.  
Then, calculate an exact answer.

1 
$$\begin{array}{r} 6.2 \\ \times 8 \\ \hline \end{array}$$
 closer to  
48  
4.8

2 
$$\begin{array}{r} 4.6 \\ \times 0.7 \\ \hline \end{array}$$
 closer to  
28  
2.8

3 
$$\begin{array}{r} 0.53 \\ \times 6 \\ \hline \end{array}$$
 closer to  
3  
30

4 
$$\begin{array}{r} 2.41 \\ \times 3.3 \\ \hline \end{array}$$
 closer to  
60  
6

5 
$$\begin{array}{r} 0.36 \\ \times 9 \\ \hline \end{array}$$
 closer to  
0.4  
4

6 
$$\begin{array}{r} 17.3 \\ \times 0.3 \\ \hline \end{array}$$
 closer to  
50  
5

7 
$$\begin{array}{r} 29.6 \\ \times 2.1 \\ \hline \end{array}$$
 closer to  
6  
60

8 
$$\begin{array}{r} 0.67 \\ \times 16.3 \\ \hline \end{array}$$
 closer to  
1.2  
12



## Test Prep

9 Which of these sentences is true?

A.  $\frac{1}{2} > 0.6$

B.  $0.23 < \frac{1}{4}$

C.  $\frac{1}{3} < 0.3$

D.  $\frac{3}{4} > 0.812$

10 Oranges are packed 144 to a crate and apples 96 to a crate. A truck can carry 90 crates of oranges and 60 crates of apples. What is the maximum number of pieces of fruit the truck can carry?

A. 16,820

C. 17,780

B. 17,620

D. 18,720