Understanding Decimals

Name _____ Class _____ Date _____

GET STARTED

1. 4,763

Thousands	Hundreds	Tens	Ones
_____	_____	_____	

2. 1,324.1

Whole Number **Decimal**

Thousands	Hundreds	Tens	Ones	Decimal Point	Tenths
1	3	2	4	.	1

Decimal Point

_____ thousands _____
_____ hundreds _____
_____ tens _____
_____ ones _____
_____ tenths _____

3. 0.4

Ones	Decimal Point	Tenths
	.	

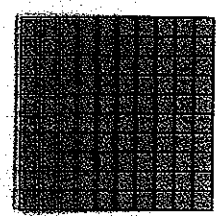
_____ ones _____
_____ tenths _____

4. 1.24

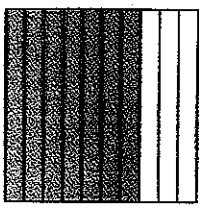
Ones	Decimal Point	Tenths	Hundredths
	.		

_____ ones _____
_____ tenths _____
_____ hundredths _____

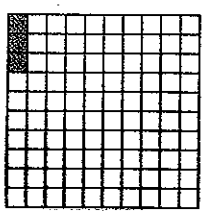
BUILD THE CONCEPT



1 whole



7 tenths



3 hundredths

_____ + _____ + _____ = _____

The decimal grids represent the decimal _____.

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TRY IT TOGETHER

Write the place value and value of each green digit.

5. 0.07

_____; _____

6. 2.04

_____; _____

7. 12.34

_____; _____

8. 141.6

_____; _____

WORK ON YOUR OWN

HOW TO

Understand Decimals Through the Hundredths Place

Using Symbols	Using Words
1. 125.97 1 hundred: 100 2 tens: 20 5 ones: 5 9 tenths: 0.9 7 hundredths: 0.07	Use the location of the **digits in the** number to name the place value **and value** of the digit.
2. 125.97 97 — decimal part	Everything to the right of the decimal point is the decimal part of the number.
3. 125.97 125 — whole number part	Everything to the left of the decimal point is the whole number part of the number.

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Reading and Writing Decimals

Name _____ Class _____ Date _____

GET STARTED

1. 4.75

Ones	Decimal Point	Tenths	Hundredths
	.		

_____ ones _____

_____ tenths _____

_____ hundredths _____

2. 1.6

_____ and _____ tenths

3. 2.54

_____

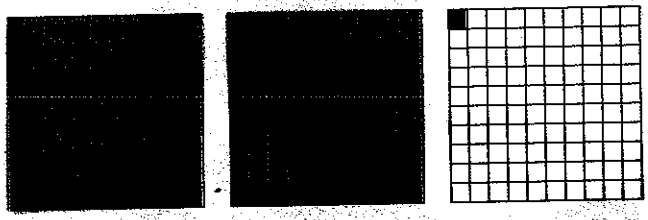
4. four and thirty-seven hundredths

_____ . _____

5. ten and six hundredths

_____ . _____

BUILD THE CONCEPT



Using digits: _____

Using words: _____

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TRY IT TOGETHER

Write each decimal using digits.

6 thirty-four hundredths ____ . ____

7 four and nine hundredths _____

Write each decimal using words.

8 5.27 _____ and _____

9 3.8 _____

WORK ON YOUR OWN

HOW TO

Write a Decimal Using Digits

Using Symbols	Using Words
1. fifty-eight and six tenths **58**	Write the whole number using digits. If there is no whole number, write 0 followed by a decimal point and skip to Step 3.
2. **58.**	Write a decimal point in place of the word *and*.
3. **58.6**	Write the numbers to the right of the decimal point using digits. If necessary, write the correct number of 0s to show place value.

Write a Decimal Using Words

Using Symbols	Using Words
1. 23.06 **twenty-three**	Write the whole number using words. If there is no whole number, skip to Step 3.
2. **twenty-three and**	Write the word *and* for the decimal point.
3. **twenty**-three and **six hundredths**	Write the number to the right of the word ***and*** followed by the place value using **words. Use** the place value of the last digit.

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Comparing and Ordering Decimals

Name _____ Class _____ Date _____

GET STARTED

1 **a.** 875 862 _____

_____

b. 235, 153, 253 _____

_____

_____

greatest to least:

_____, _____, _____

2 **a.** 2.5 2.7

2	.	5
2	.	7

b. 0.26 0.2

	.		
	.		

3 0.6, 0.78, 0.4

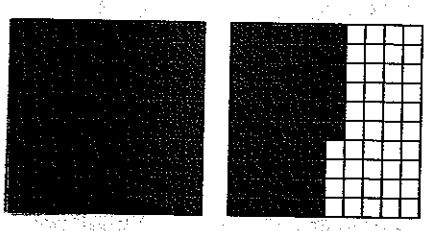
	.		
	.		
	.		

_____, _____, _____

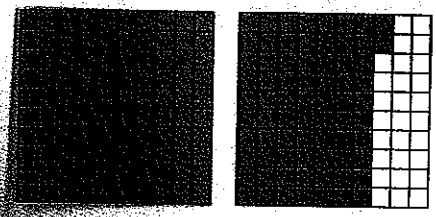
greatest least

BUILD THE CONCEPT

Lee bought two packages of meat. The first package weighed 1.56 pounds. The second package weighed 1.72 pounds. Which package weighed more?



Package 1
1.56 pounds



Package 2
1.72 pounds

1.56 ☐ 1.72

Package _____ weighed more.

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Compare. Write >, <, or =.

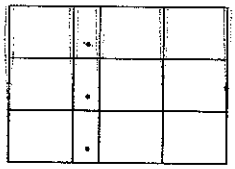
4. 128.35 ___ 112.35

5. 5.15 ___ 5.3

Order the set of numbers from least to greatest.

6. 0.57, 0.38, 0.52

_____, _____, _____



Order the set of numbers from greatest to least.

7. 0.84, 8.51, 0.8

_____, _____, _____

WORK ON YOUR OWN

HOW TO

Compare and Order Decimals

Using Symbols	Using Words
1. Order 4.1, 3.24, 4.09. 4.10 3.24 4.09	Write the numbers vertically. Line up the decimal points. If necessary, write 0s at the end of numbers so they all have the same number of digits.
2. Compare 4.10 and 4.09. 4.10 $1 > 0$ 4.09 So, $4.1 > 4.09$. 3.24 is the least number.	Find the greatest place value where the digits differ. The number with the greater digit in this place is the greater number.
3. **least to greatest:** 3.24, 4.09, 4.1 **greatest to least:** 4.1, 4.09, 3.24	Continue comparing the remaining numbers. Order the decimals from least to greatest or greatest to least.

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Rounding Decimals

Name _____ Class _____ Date _____

GET STARTED

1. 1,832 _____

2. 1,812 _____

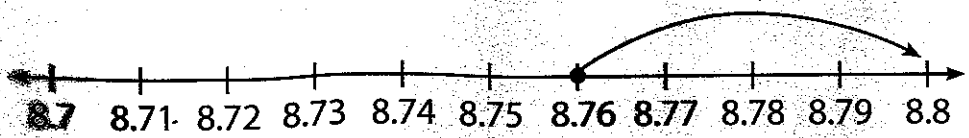
3. 3.295 _____

4. 0.295 _____

5. 26.295 _____

BUILD THE CONCEPT

Use the number line to round 8.76 to the nearest tenth.



8.76 is between _____ and _____.

8.76 is closer to _____.

8.76 rounded to the nearest tenth is _____.

TRY IT TOGETHER

Round each decimal to the place indicated.

6. 0.809 _____

7. 9.829 _____

8. 9.829 _____

9. 0.99 _____

WORK ON YOUR OWN

HOW TO

Round Decimals

Using Symbols	Using Words
1. 1.237 hundredths	Determine the place value of the indicated digit.
2. 1.237 7 > 5	Determine whether the digit to the right of the underlined place value is greater than, less than, or equal to 5.
3. 1.24	If the digit is greater than or equal to 5, round the underlined digit up by 1. If the digit is less than 5, keep the underlined digit the same. Drop the numbers after the underlined digit because trailing zeros do not have to be written after the decimal point.

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Adding Decimals with the Same Number of Decimal Places

Name _____ Class _____ Date _____

GET STARTED

1. **a.** $\begin{array}{r} 134 \\ +\ 252 \\ \hline \end{array}$ **b.** $\begin{array}{r} 357 \\ +\ 464 \\ \hline \end{array}$

2. **a.** $\begin{array}{r} 1.34 \\ +\ 2.52 \\ \hline \end{array}$ **b.** $\begin{array}{r} 3.57 \\ +\ 4.64 \\ \hline \end{array}$

3. $77.2 + 7.6$

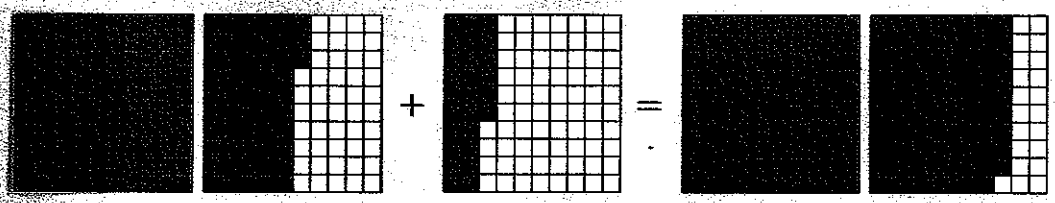
$+$ _____

4. $\$12.64 + \$8.38$

$+$ _____

BUILD THE CONCEPT

Use the decimal grids to find the sum of 1.53 and 0.26.



1.53 + 0.26 = _____

TRY IT TOGETHER

Find each sum. Regroup as needed.

5. 12.98 + 14.65

   +

6. $5.57 + $1.98

   +

7. 4.3 + 2.4

   +

8. $20.31 + $2.45

   +

WORK ON YOUR OWN

HOW TO

Add Decimals with the Same Number of Decimal Places

Using Symbols	Using Words
1. 3.41 + 1.78 3.41 + 1.78	Write the problem vertically. Line up the decimal points.
2. 3.41 + 1.78 9	Add the digits in the column with the least place value. Regroup as needed.
3. $\overset{1}{}$3.41 + 1.78 19	Move left and add the digits in the next column. Regroup as needed.
4. $\overset{1}{}$3.41 + 1.78 5.19	Repeat Step 3 until all the columns have been added. Write the decimal point in the answer below the decimal points in the problem.

Adding Decimals with a Different Number of Decimal Places

Name _____ Class _____ Date _____

GET STARTED

1. 4.835
   2.004
   + 0.961

2. 7 = _____

3. 1.2 + 3

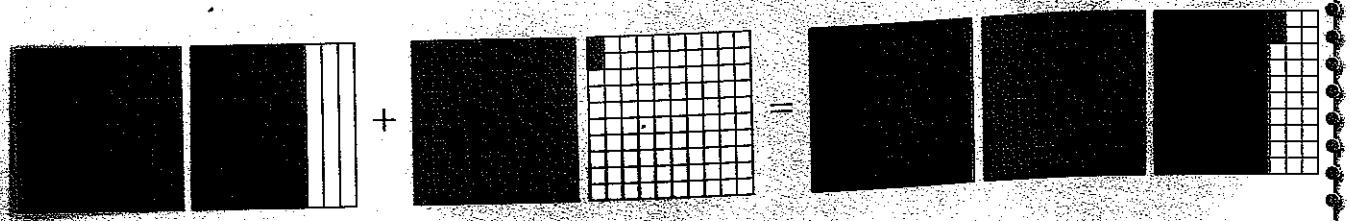
   1.2
   + 3.

4. 3.156 + 0.72 + 2

   3.156
   0.72
   + 2 .

BUILD THE CONCEPT

Use the decimal grids to find the sum of 1.7 and 1.02.



1.7 = _____ + 1.02 = _____

TRY IT TOGETHER

Find each sum. Regroup as needed.

5 0.3 + 25.31 + 6.73

$$\begin{array}{r} 0.3 \\ 25.31 \\ +\ 6.73 \\ \hline \end{array}$$

6

$$\begin{array}{r} 7 \\ 8.63 \\ +\ 0.8 \\ \hline \end{array}$$

7 35.54 + 96 + 4.298

$$+ \_\_\_\_\_$$

WORK ON YOUR OWN

Add Decimals with a Different Number of Decimal Places

HOW TO

Using Symbols	Using Words
1. 1.489 + 2.1 + 6 1.489 2.1 + 6.	Write the problem vertically. Line up the decimal points, adding decimal points to whole numbers.
2. 1.489 2.100 + 6.000	Make all the addends have the same number of decimal places by writing 0s to the right.
3. 1.489 2.100 + 6.000 **9589**	Add the digits in the column with the least place value. Regroup as needed. Add the digits in the next column to the left. Regroup as needed. Repeat until all the columns have been added.
4. So, 1.489 + 2.1 + 6 = 9.589	Bring the decimal point straight down in the answer.

Estimating Decimal Sums

Name _____ Class _____ Date _____

GET STARTED

1. 6.888
   1.861
   + 2.246

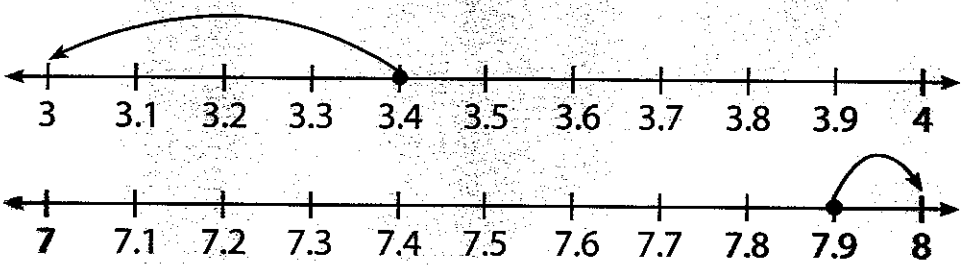
2. 6.888 → _____
   1.861 → _____
   2.246 → _____

3. 6.888 → 6.9
   1.861 → 1.9
   2.246 → + 2.2

4. 2.34 + 0.34 + 7.56
   2.34 →
   0.34 →
   7.56 → +

BUILD THE CONCEPT

Use the number lines to round each decimal to the nearest whole number. Then find the estimated sum of 3.4 and 7.9.



3.4 is between 3 and 4. 3.4 is closer to _____.

7.9 is between 7 and 8. 7.9 is closer to _____.

_____ + _____ = _____

The sum of 3.4 and 7.9 estimated to the nearest whole number is _____.

TRY IT TOGETHER

Round each number to the nearest whole number. Estimate each sum.

5. 6.0 →
   15.8 →
   3.3 → + ____

6. 32.45 + 21.6
   + ____

Round each number to the nearest tenth. Estimate each sum.

7. 0.165 →
   1.000 →
   0.353 → + ____

8. 10.341 + 11.116 + 9.204
   + ____

WORK ON YOUR OWN

HOW TO

Estimate Decimal Sums

Using Symbols	Using Words
1. Estimate the sum to the nearest whole number. 1.2 + 4.61 + 3.41	Identify the place to which the addends will be rounded.
2. 1.2 → 1 4.61 → 5 3.41 → + 3	Round the addends. Drop the decimal and any trailing zeros after the decimal unless adding money amounts.
3. 1 + 5 + 3 = 9 So, the sum of 1.2, 4.61, and 3.41 estimated to the nearest whole number is 9.	Add the rounded numbers.

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Subtracting Decimals with the Same Number of Decimal Places

Name _____ Class _____ Date _____

GET STARTED

1 **a.** 436
− 115

b. 64
− 28

2 **a.** 4.36
− 1.15

b. 6.4
− 2.8

3 6.05 − 4.20

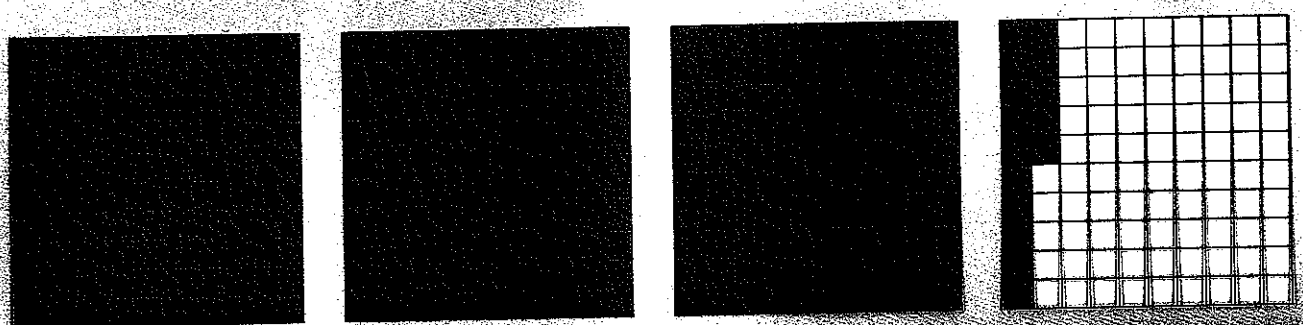
6.05
− 4.20

4 $2.43 − $1.26

_____
− _____

BUILD THE CONCEPT

Use the decimal grids to find the difference of 3.15 and 1.07.



3.15 − 1.07 = _____

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TRY IT TOGETHER

Find each difference. Regroup as needed.

5. $\begin{array}{r} 3.2 \\ -\ 2.4 \\ \hline \end{array}$

6. $\begin{array}{r} \$1.52 \\ -\ \$0.43 \\ \hline \end{array}$

7. $28.7 - 13.5$

$\_\_\_\_\_$

8. $7.32 - 6.15$

$\_\_\_\_\_$

WORK ON YOUR OWN

Subtract Decimals with the Same Number of Decimal Places

HOW TO

Using Symbols	Using Words
1. $8.54 - 4.16$ $\begin{array}{r} 8.54 \\ -\ 4.16 \\ \hline \end{array}$	Write the problem vertically. Line up the decimal points.
2. $\begin{array}{r} {}^{4}\not{8}.{}^{14}\not{5}\not{4} \\ -\ 4.16 \\ \hline 8 \end{array}$	Subtract the digits in the column with the least place value. Regroup as needed.
3. $\begin{array}{r} {}^{4}\not{8}.{}^{14}\not{5}\not{4} \\ -\ 4.16 \\ \hline 4.38 \end{array}$	Repeat Step 2 from right to left until all columns have been subtracted. Write a decimal point lined up under the decimals in the problem.
So, $8.54 - 4.16 = 4.38$	

Subtracting Decimals with a Different Number of Decimal Places

Name _____ Class _____ Date _____

GET STARTED

1. 87.34 − 2.19

$$\begin{array}{r} 87.34 \\ -\ 2.19 \\ \hline \end{array}$$

2. 30.57 − 8.469

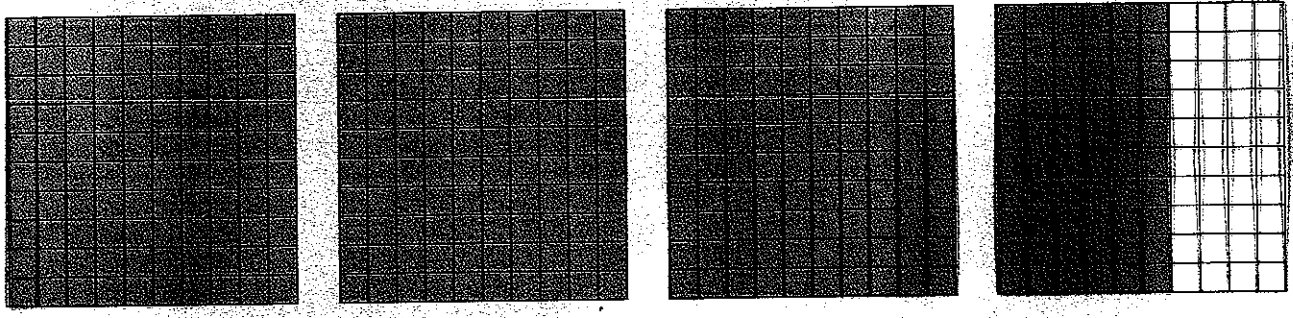
$$\begin{array}{r} 30.570 \\ -\ 8.469 \\ \hline \end{array}$$

3. 9 − 3.17

$$\begin{array}{r} 9. \\ -\ 3.17 \\ \hline \end{array}$$

BUILD THE CONCEPT

Use the decimal grids to find the difference of 3.6 and 1.09.



3.6 − 1.09 = _____

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