

ADDING AND SUBTRACTING DECIMALS



a 12 day CCSS-aligned unit

CCSS: 5.NBT.1, 5.NBT.2, 5.NBT.3a, 5.NBT.4, 5.NBT.7

**ready-to-go, scaffolded
student materials**

ADDING AND SUBTRACTING DECIMALS UNIT

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student friendly + real-world application

ADDING DECIMALS - PART I
STUDENT HANDOUT

Name _____
Date _____ Pd _____

Luna and Ava want to put their extra change together to buy something at the cafeteria vending machine. Luna has \$0.54 and Ava has \$0.31. Describe how each of the models represents the total amount of money the girls have to spend at the vending machine.

MODEL #1:

MODEL #2:

In 1-4, estimate the sum and explain your reasoning. Then use the models to find the sum.

1. $0.58 + 0.73$	2. $1.15 + 0.37$
ESTIMATE:	ESTIMATE:
MODEL:	MODEL:
3. $6.17 + 1.62$	4. $14.76 + 10.44$
ESTIMATE:	ESTIMATE:
MODEL AND SOLVE:	MODEL AND SOLVE:

scaffolded concepts

ADDING DECIMALS - PART II
INDEPENDENT PRACTICE

Name _____
Date _____ Pd _____

Solve the problem on card A. Draw a line from the arrow on card A to its solution in the corner of a card in column #2. Then solve the corresponding problem. Continue showing the path from each card to its solution in the opposite column until you end at the solution on card A.

A 291.58 $38.72 + 77.4$ →	B 130.595 Mrs. Baker had a container filled with 212.316 ounces of flour. She poured a 79.264-ounce bag of flour into the container. How many ounces of flour are in the container?
C 275.71 Caroline filled a large glass pitcher with 34.82 ounces of lemonade and 87.9 ounces of tea. How many ounces of liquid are in the glass pitcher?	D 116.12 $149.5 + 108.718$
E 286.48 $89.92 + 40.675$	F 122.72 Mr. Halsted's utility bill was \$208.56 in June. His utility bill in July was \$77.92 more than it was in June. How much was Mr. Halsted's utility bill in July?
G 258.218 Aaron's cell phone apps are using 72.15 GB of storage space. His photos are using 48.79 more GB of storage space than the apps. How many GB of storage space are Aaron's photos using?	H 120.94 $78.35 + 197.36$
COLUMN #1	COLUMN #2

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self-checking practice

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unit study guide + assessments



quizzes



editable unit test

DECIMAL CONCEPTS QUIZ

Name _____ Date _____ Pd _____

Answers

1. What number has the same value as $0.083 + 10^2$?
 - a. 83
 - b. 0.0083
 - c. 0.00083
 - d. 83,000
2. Which of the following comparisons is true?
 - a. $7.115 > 7.203$
 - b. $8.32 > 8.279$
 - c. $6.02 = 6.020$
 - d. $5.005 < 5.05$

Answer the questions below. Be sure to show your work.

3. Write the numeral represented by (6 × 1,000) + (2 × 100) + (7 × 1) + (4 × 0.1)

4. Nadir and Zachary solved the problem $40.37 \times 10 = 403.7$.
 NADIR
 $40.37 \times 10 = 403.7$

5. Spencer purchased an airline ticket for \$3.804. How is this number written in expanded form?
 BRITTON
 $3 + 0.9 + 0.02$
 MOL
 three ninety thousandths

ADDING AND SUBTRACTING DECIMALS UNIT REVIEW

Name _____ Date _____ Pd _____

Solve each of the problems below. Be sure to ask questions if you need more help with a topic.

I CAN USE PLACE VALUE TO REPRESENT THE VALUE OF DIGITS IN DECIMALS.

1. Use the given representation in each row of the table to complete the missing columns.

NUMBER	WORDS
	two hundred and forty-six thousandths
15.07	

2. Circle the name of the student who correctly represented the number 3.804. Then, rewrite the other representation correctly.

BRITTON: $3 + 0.9 + 0.02$
 MOL: three ninety thousandths

I CAN MULTIPLY AND DIVIDE WITH DECIMALS.


4. Apply your understanding of multiplication and division with decimals on the left with its solution on the right.

- i. 0.035×10^3
- ii. $335,000 \div 10^2$
- iii. $3,350 \times 10^4$

PLACE VALUE WITH DECIMALS STUDENT HANDOUT

Name Answer Key Date _____ Pd _____

Sasha is going to buy a chair for her office and plans to pay using cash. Sasha owes the seller \$343 for the chair and will pay with hundreds, tens and ones.



- Using the least amount of bills as possible, list the number of each bill Sasha will need.
 Sasha will need 3 \$100 bills, 2 \$20 bills, and 3 \$1 bills.
- Represent the cost of the chair using expanded notation. How do the 3s in the cost differ?
 $(3 \times 100) + (4 \times 10) + (3 \times 1)$
 The first 3 represents 3 hundreds and the second 3 represents 3 ones.

Place value describes the numerical value that a digit has based on its position/placement.

Use the chart at the right to consider the value of digits to both the left and the right of the decimal by filling in the numerical value of each position.

THOUSANDS	HUNDREDS	TENS	ONES	.	TENTHS	HUNDRETHS	THOUSANDTHS
1,000	100	10	1	.	0.1	0.01	0.001
1,000	100	10	1	.	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1,000}$

Observe how the value in the ones place compares to the tens place. Next, compare the tens place to the hundreds place. Then summarize the patterns to complete the sentences below:

- The value of any digit is 10 times greater than the value of the digit to its right.
- The value of any digit is $\frac{1}{10}$ the value of the digit to its left.

In 1-3, apply your understanding of place value to write each number using expanded notation.

NUMBER	EXPANDED FORM
96.02	$(9 \times 10) + (6 \times 1) + (2 \times 0.01)$
1,362.75	$(1 \times 1,000) + (3 \times 100) + (6 \times 10) + (2 \times 1) + (7 \times 0.1) + (5 \times 0.01)$
3.804	$(3 \times 1) + (8 \times 0.1) + (4 \times 0.001)$

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answer keys included

