



Decimal Operations

15 full days of math lesson plans, PowerPoints, & activities

Unit 4 Lesson 5 Homework

Unit 4 Lesson 5 Problem Set

Directions: Use the standard algorithm to find the difference.

1. $\begin{array}{r} 6.43 \\ - 5.26 \\ \hline \end{array}$	2. $\begin{array}{r} 4.32 \\ - 2.08 \\ \hline \end{array}$	3. $\begin{array}{r} 9.23 \\ - 4.5 \\ \hline \end{array}$
4. $\begin{array}{r} 12.35 \\ - 7.6 \\ \hline \end{array}$	5. $\begin{array}{r} 25.44 \\ - 18.54 \\ \hline \end{array}$	6. $\begin{array}{r} 24.37 \\ - 7.68 \\ \hline \end{array}$
7. $5.63 - 3.9 = \underline{\hspace{2cm}}$	8. $19.43 - 13.88 = \underline{\hspace{2cm}}$	

Warm Up

Solve.

$$\begin{array}{r} .16 \\ \times 3 \\ \hline \end{array}$$

Fact Fluency

QUICK THINK!

Whisper-shout the product.

Division with Models

There are 5 groups of 9 hundredths in 45 hundredths.

$$.45 \div .09 = \underline{5}$$

DIVISION WITH MODELS

45 hundredths separated into 9 hundredths

$$.45 \div .09 = 5$$

MULTIPLYING DECIMALS

Multiply to make a whole. Then, multiply to come back to the original number.

$$\begin{array}{r} 6.4 \times 10 = 64 \\ \times 7 \\ \hline \end{array}$$

PRODUCT

the answer to a

$$7 \times 6 = 42$$

STANDARD ALGORITHM

the common step-by-step process to solve a

$$\begin{array}{r} 20 \\ 5 \overline{)100} \\ - 100 \\ \hline \end{array}$$

ESTIMATE

when we roughly calculate a number

a burger and fries cost about \$10

UNIT 4: OPERATIONS WITH DECIMALS *at a glance*

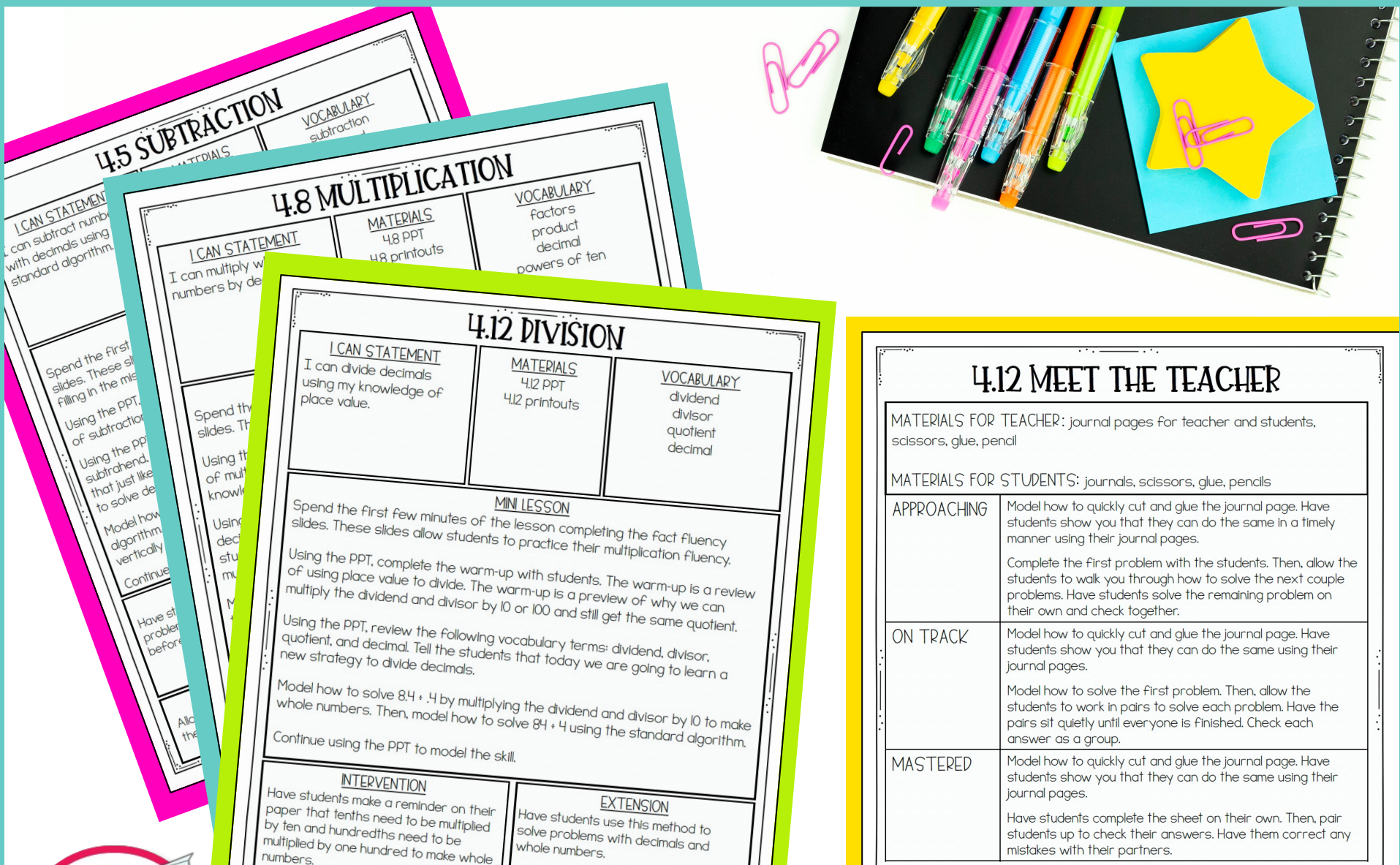
Day 1 Addition with Base Ten Blocks	Day 2 Addition with the Standard Algorithm	Day 3 Subtraction with Base Ten Blocks	Day 4 Subtraction with the Standard Algorithm	Day 5 Subtraction with the Standard Algorithm
Day 6 Review	Day 7 Multiplication with Models	Day 8 Multiplying Decimals by Whole Numbers	Day 9 Multiplying Decimals by Decimals	Day 10 Division with Models
Day 11 Division with Models	Day 12 Division with the Standard Algorithm	Day 13 Division with the Standard Algorithm	Day 14 PBL	Day 15 Assessment

THIS UNIT COVERS THE FOLLOWING COMMON CORE MATH STANDARD: 5.NBT.7

Notes:



Includes a pacing guide so you can see the whole unit at a glance.



4.5 SUBTRACTION

VOCABULARY
subtraction

4.8 MULTIPLICATION

VOCABULARY
factors
product
decimal
powers of ten

4.12 DIVISION

I CAN STATEMENT
I can divide decimals using my knowledge of place value.

MATERIALS
4.12 PPT
4.12 printouts

VOCABULARY
dividend
divisor
quotient
decimal

MINI LESSON

Spend the first few minutes of the lesson completing the fact fluency slides. These slides allow students to practice their multiplication fluency.

Using the PPT, complete the warm-up with students. The warm-up is a review of using place value to divide. The warm-up is a preview of why we can multiply the dividend and divisor by 10 or 100 and still get the same quotient.

Using the PPT, review the following vocabulary terms: dividend, divisor, quotient, and decimal. Tell the students that today we are going to learn a new strategy to divide decimals.

Model how to solve $84 \div 4$ by multiplying the dividend and divisor by 10 to make whole numbers. Then, model how to solve $84 \div 4$ using the standard algorithm.

Continue using the PPT to model the skill.

INTERVENTION

Have students make a reminder on their paper that tenths need to be multiplied by ten and hundredths need to be multiplied by one hundred to make whole numbers.

EXTENSION

Have students use this method to solve problems with decimals and whole numbers.

4.12 MEET THE TEACHER

MATERIALS FOR TEACHER: journal pages for teacher and students, scissors, glue, pencil

MATERIALS FOR STUDENTS: journals, scissors, glue, pencils

APPROACHING

Model how to quickly cut and glue the journal page. Have students show you that they can do the same in a timely manner using their journal pages.

Complete the first problem with the students. Then, allow the students to walk you through how to solve the next couple problems. Have students solve the remaining problem on their own and check together.

ON TRACK

Model how to quickly cut and glue the journal page. Have students show you that they can do the same using their journal pages.

Model how to solve the first problem. Then, allow the students to work in pairs to solve each problem. Have the pairs sit quietly until everyone is finished. Check each answer as a group.

MASTERED

Model how to quickly cut and glue the journal page. Have students show you that they can do the same using their journal pages.

Have students complete the sheet on their own. Then, pair students up to check their answers. Have them correct any mistakes with their partners.

Engaging whole & small group lessons are done for you, making prep & planning a breeze.

Multiplication with Models

We need to shade 6 groups of 7 hundredths.

$$6 \times .07 = \underline{\quad}$$

Multiplication with Models

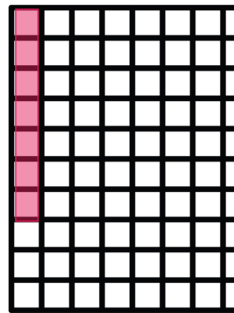
First, shade one group of 7 hundredths.

$$6 \times .07 = \underline{\quad}$$

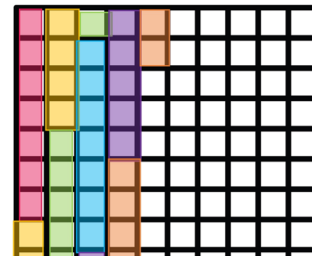
Multiplication with Models

What is the product?

$$6 \times .07 = \underline{.42}$$



NOT SO WIMPY TEACHER



Deliver great lessons with step-by-step PowerPoints for teaching math skills.



MULTIPLICATION

With the Powers of Ten

$$\begin{array}{r} 5.4 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 4.8 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 3.82 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 18.7 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 4.53 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 7.64 \\ \times 5 \\ \hline \end{array}$$

REVIEW board game

How to Play:

- The first player picks up the first question card and answers it.
- Other players use the answer using the board.

CARD 1:
Add.
$$\begin{array}{r} .49 \\ + .28 \\ \hline \end{array}$$


CARD 19:
The Clarks put in a swimming pool in their yard. The pool was originally 8.5 meters long, but they renovated it. It is now 12.35 meters long. How many meters did they add?

START/FINISH
LOSE A TURN
UP 5 SPACES
GO AGAIN
UP 4 SPACES
BACK 2 SPACES
BACK SPACES
TURN AGAIN


NOT SO WIMPY TEACHER



UNIT FOUR TASK CARDS DECIMAL OPERATIONS



During a school fundraiser, Jacob sold 15.25 boxes of chocolates and 8.5 boxes of cookies. How many boxes of treats did Jacob have in total?

$$\begin{array}{r} 19.43 \\ + 13.89 \\ \hline \end{array}$$




Get students excited with targeted, hands-on math activities & interactive notebooks.

RECIPE OF THE WEEK




It's almost time to record the final segment! Your reporters ran to the store to get ingredients for the popular "Recipe of the Week" segment. Use the ad to answer the questions on the next page.

MINI MARKET WEEKLY AD

Frosting  \$1.65	Sugar  \$4.79	Flour 	Chocolate Chips 	Marshmallows 
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SPORTS REPORT

Your sports reporter wants to report on the school's baseball team for the sports segment of the news. He has a roster with some of the players' batting averages, but the names are missing! Use the clues below to fill in the roster, then answer the questions.

	Name: _____ Batting Average: .314
	Name: _____ Batting Average: .192
	Name: _____ Batting Average: .198

- Jackie's batting average is higher than .254 but lower than .290.
- River's batting average is lower than Casey's.
- Ryan has the highest batting average.
- Casey's batting average is lower than Ryan's, but higher than Jackie's.
- Only one person has a batting average higher than Jesse.

BREAKING NEWS

Your fifth-grade class has been put in charge of producing your school's weekly student news show! The class has split into groups to produce five different segments for the show.

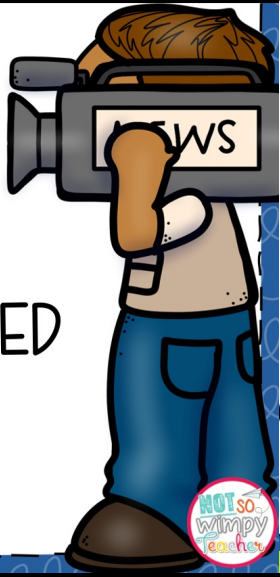
You will be creating segments for your show that cover local and global weather reports, sports, and entertainment. You'll finish your show with a live baking demonstration.

Grab your reporter's notebook and your math skills because the show will begin in 3...2...1...

PBL ACTIVITY

OPERATIONS WITH DECIMALS

A NEWS SHOW-THEMED PROJECT-BASED LEARNING ACTIVITY



ENTERTAINMENT NEWS

Your reporter is reporting on the new movie premiering Friday! To complete the segment, students must solve the problem on it. Find the answer to each problem.

B $.72 \div .09 =$	C $5 \overline{)75}$
E $.05 \times .9 =$	F $.48 \div .08 =$
H $.72 \div .12 =$	I $12.4 \times 4 =$
K $6 \overline{)354}$	L $7.6 \times .5 =$



Includes an engaging standards-based math PBL that your students will love.

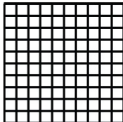


Name: _____

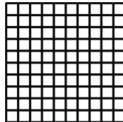
Unit 4 Lesson 7 Problem Set

Directions: Use the models to find the product.

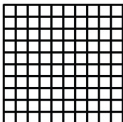
1. $5 \times .04 =$ _____



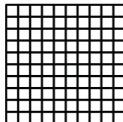
2. $7 \times .12 =$ _____



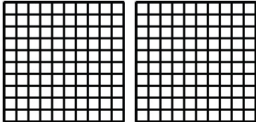
3. $.3 \times .9 =$ _____



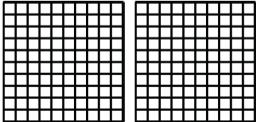
4. $0.4 \times 0.8 =$ _____



5. $8 \times .2 =$ _____



6. $12 \times .3 =$ _____



7. Would multiplying .4 by .3 give you a product greater than one or less than one?


NOT SO WIMPY TEACHER

Name: _____

Unit 4 Lesson 3 Exit Ticket

Directions: Draw models to subtract.

Key: $\square = 1$ whole $| = 1$ tenth $\bullet = 1$ hundredth

Example: $.42 =$ 

1. $6.03 - 2.44$

2. $8.58 - 4.9$

Name: _____

Homework

product.

2.
$$\begin{array}{r} .5 \\ \times .5 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 23 \\ \times .4 \\ \hline \end{array}$$

6.
$$\begin{array}{r} .6 \\ \times .3 \\ \hline \end{array}$$

Name: _____

Unit 4 Lesson 4 Exit Ticket Answer Key

Directions: Use the standard algorithm to find the difference.

1.
$$\begin{array}{r} .8 \\ - .5 \\ \hline .3 \end{array}$$

2.
$$\begin{array}{r} 57 \\ - 39 \\ \hline 18 \end{array}$$

3.
$$\begin{array}{r} 7.0 \\ - 5.8 \\ \hline 1.2 \end{array}$$

4. $5.33 - 2.8 = 2.53$



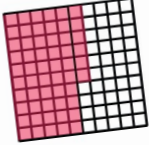
Includes problem sets, homework, and exit tickets for each day.

Unit 4 Assessment A1

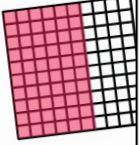
Name: _____

Directions: Use the models to find the product.

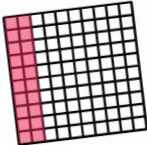
14. $8 \times .07 = \underline{.56}$




15. $.15 \times 4 = \underline{.6}$



16. $.5 \times .4 = \underline{.2}$



17. $15 \times 7 = \underline{10}$



Directions: Solve.

18.
$$\begin{array}{r} .09 \\ \times .4 \\ \hline .036 \end{array}$$

20.
$$\begin{array}{r} .44 \\ \times .2 \\ \hline .088 \end{array}$$

Unit 4 Decimal Operations Pre-assessment

Name: _____

Directions: Solve each problem.

1.
$$\begin{array}{r} 728 \\ + 398 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 5402 \\ + 2559 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 54283 \\ + 23644 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 625 \\ - 273 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 7204 \\ - 3645 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 89392 \\ - 72355 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 55 \\ \times 7 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 47 \\ \times 88 \\ \hline \end{array}$$

9.
$$5 \overline{) 539}$$

Assessment

Name: _____

olve.

2. $.5 + .34 =$

3. $.45 + .28 =$

5.
$$\begin{array}{r} 55.3 \\ + 47.6 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 9.34 \\ + 8.2 \\ \hline \end{array}$$

7. $.56 - .4 =$

9. $.45 - .37 =$

12.
$$\begin{array}{r} 8.22 \\ - 4.69 \\ \hline \end{array}$$

res. He purchased a toy for \$5.68. How

Skill	Adding Decimals	Subtracting Decimals	Using Models to Multiply Decimals	Multiplying Two Decimals	Multiplying Decimals by Whole Numbers	Using Models to Divide Decimals	Dividing Decimals by Decimals	Estimating and Dividing Decimals by Whole Numbers	
Student	1-6	7-13	14-17	18-21	22-25	26-29	30-33	34-37	TOTAL
	___ / 6	___ / 7	___ / 4	___ / 4	___ / 4	___ / 4	___ / 4	___ / 8	___ / 37
	___ / 6	___ / 7	___ / 4	___ / 4	___ / 4	___ / 4	___ / 4	___ / 8	___ / 37
	___ / 6	___ / 7	___ / 4	___ / 4	___ / 4	___ / 4	___ / 4	___ / 8	___ / 37
	___ / 6	___ / 7	___ / 4	___ / 4	___ / 4	___ / 4	___ / 4	___ / 8	___ / 37
	___ / 6	___ / 7	___ / 4	___ / 4	___ / 4	___ / 4	___ / 4	___ / 8	___ / 37
	___ / 6	___ / 7	___ / 4	___ / 4	___ / 4	___ / 4	___ / 4	___ / 8	___ / 37
	___ / 6	___ / 7	___ / 4	___ / 4	___ / 4	___ / 4	___ / 4	___ / 8	___ / 37
	___ / 6	___ / 7	___ / 4	___ / 4	___ / 4	___ / 4	___ / 4	___ / 8	___ / 37



Track student progress with pre- & post-assessments and recording sheet.

Unit 4 Lesson 13 Problem Set

Directions: Estimate the product using the standard algorithm.

1. Estimation Equation

4) 4.52

3. Estimation Equation

5) 18

5. Estimation Equation

4.7 MULTIPLICATION WITH MODELS

I CAN STATEMENT
I can multiply numbers with decimals using models.

MATERIALS
4.7 ppt
4.7 printouts

VOCABULARY
Factors
product
decimal

MINI LESSON
Spend the first few minutes of the lesson completing the fact fluency slides. These slides allow students to practice their multiplication fluency.

Using the PPT, complete the warm-up with students. The warm-up is a review of subtracting decimals.

Using the PPT, introduce the vocabulary terms factors and product. Then, review the term decimal. Tell the students that today we are going to be using models to multiply decimals.

Model how to find the product of $6 \times .07$ using a hundredths grid. Tell the students that the problem reads as 6 groups of 7 hundredths. Tell the students that we can use the grid to draw a model of the problem.

Continue using the PPT to show students how to use models to multiply decimals.

INTERVENTION
Encourage students to use different colors on their models.

EXTENSION
Challenge the students to solve each problem without a model.

DIVIDEND
the total in a division

$42 \div 6 = 7$

QUOTIENT
the answer to a division problem

$42 \div 6 = 7$

QUOTIENT
the answer to a division problem

$42 \div 6 = 7$

UNIT 4: OPERATIONS WITH DECIMALS *at a glance*

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Day 11 Division with Models	Day 12 Division with the Standard Algorithm	Day 13 Division with the Standard Algorithm	Day 14 PBL	Day 15 Assessment



Teach with confidence; each day is fully planned for you with all the tools you need!