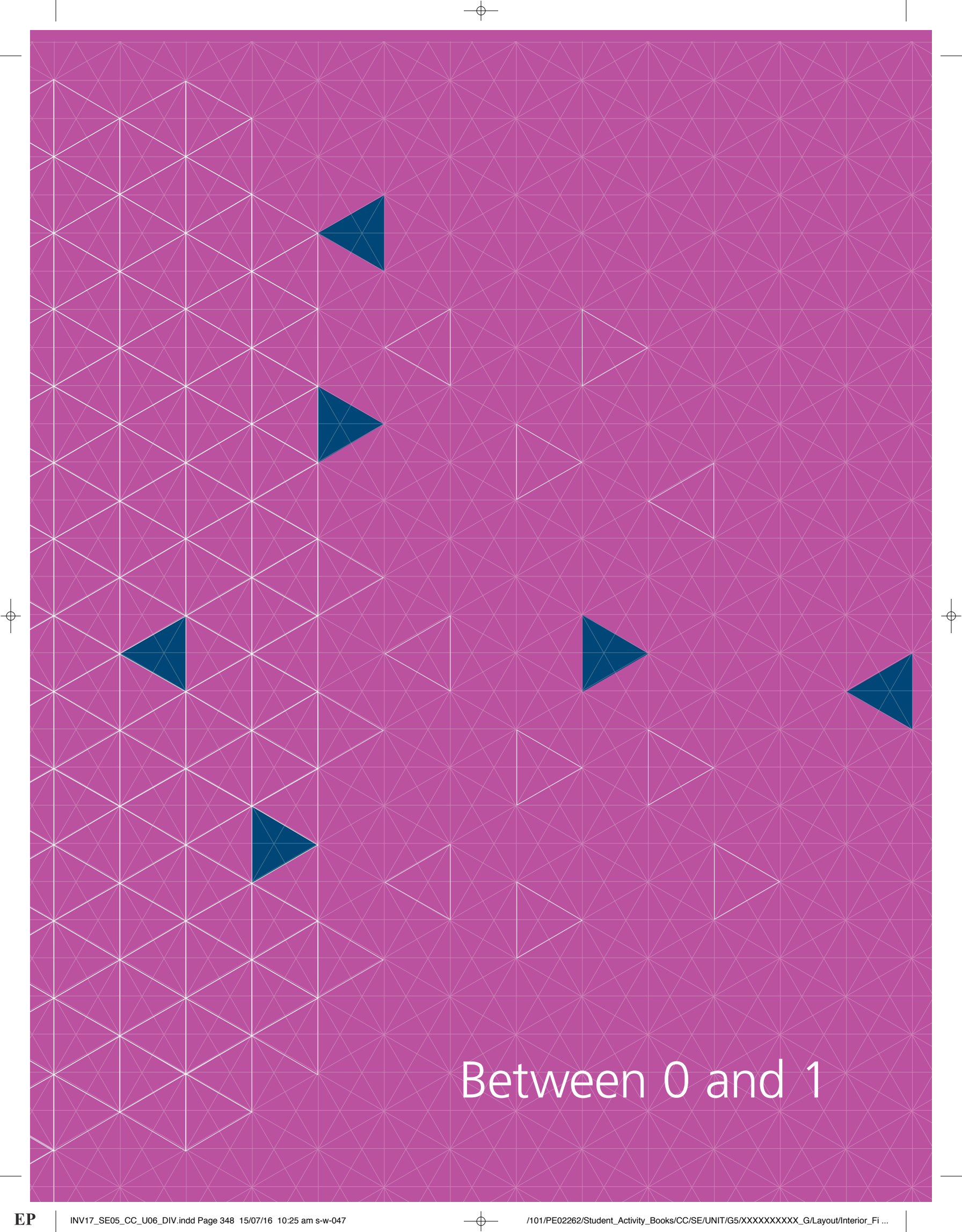


UNIT 6

Between 0 and 1



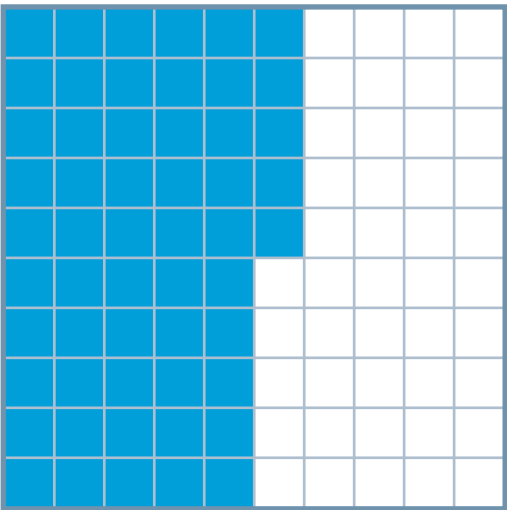
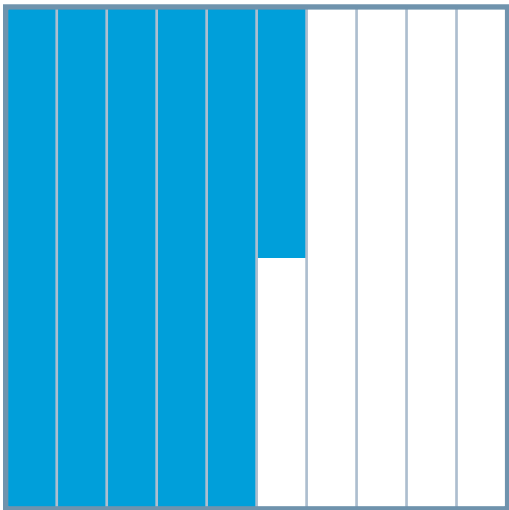
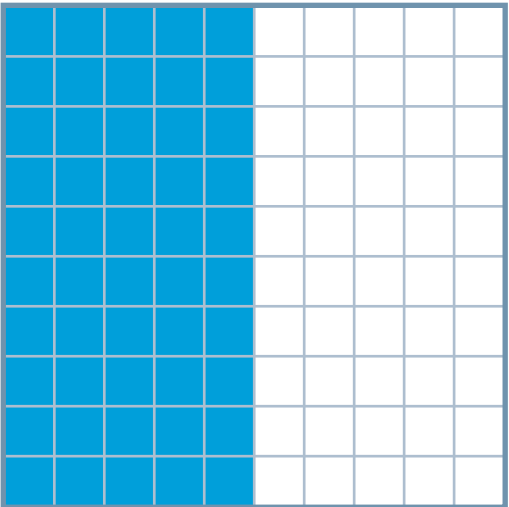
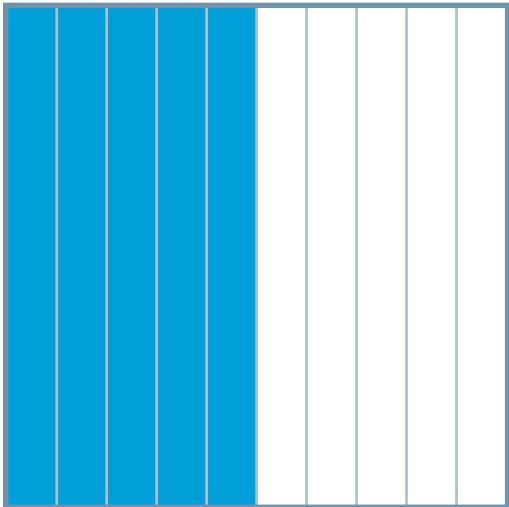
Between 0 and 1



NAME

DATE

Tenths and Hundredths





NAME _____

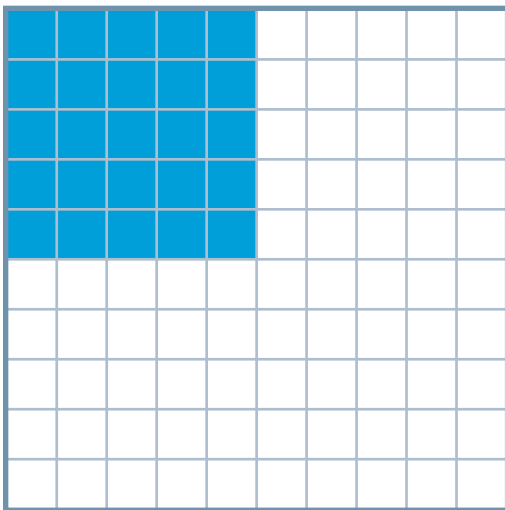
DATE _____

(PAGE 1 OF 3)

How Much of the Garden Is Planted?

The shaded part of each square in Problems 1–10 shows how much of that garden is planted. Under each square, write how much is shaded, using a fraction and a decimal. Write more than one fraction and one decimal if you can.

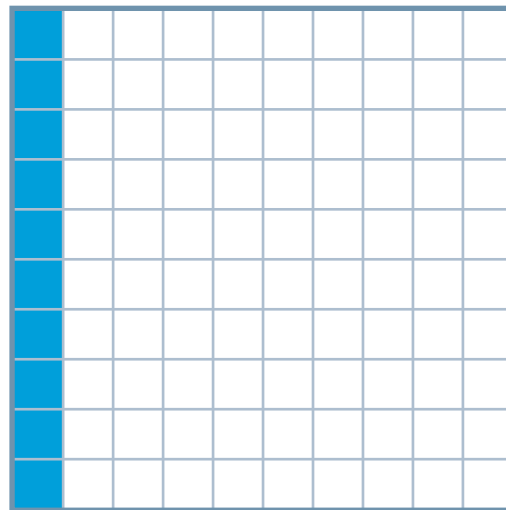
1



Fractions:

Decimals:

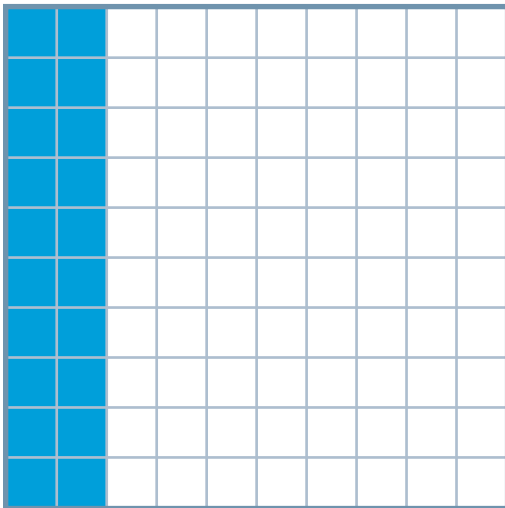
2



Fractions:

Decimals:

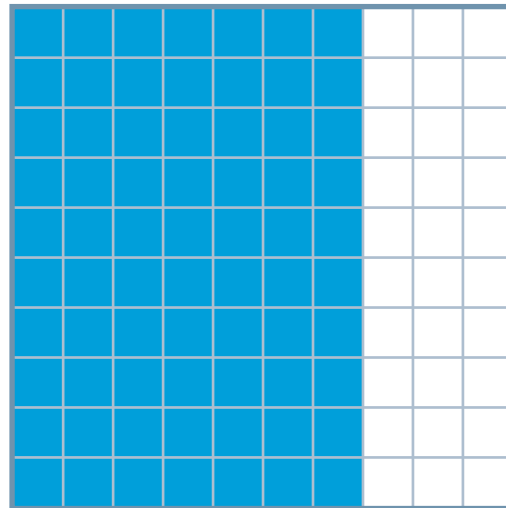
3



Fractions:

Decimals:

4



Fractions:

Decimals:



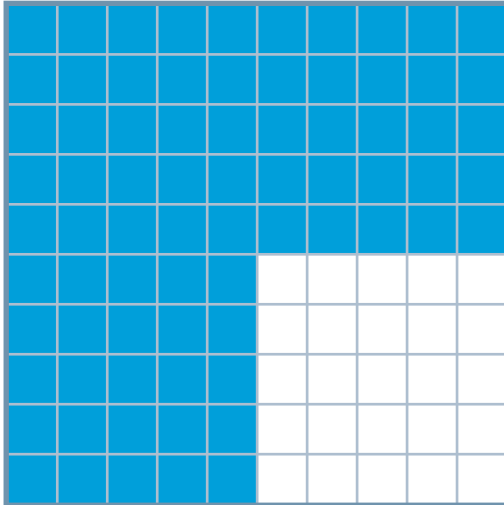
NAME _____

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(PAGE 2 OF 3)

How Much of the Garden Is Planted?

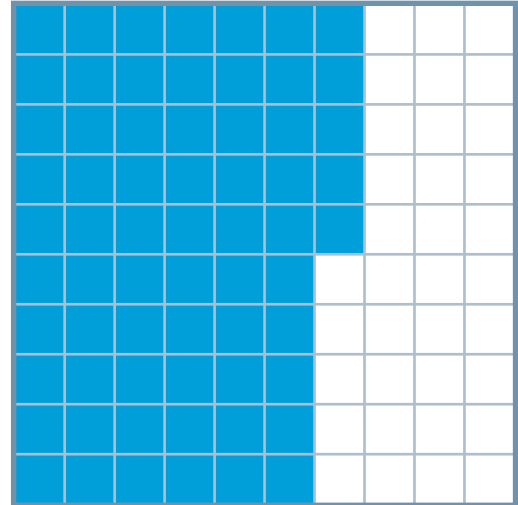
5



Fractions:

Decimals:

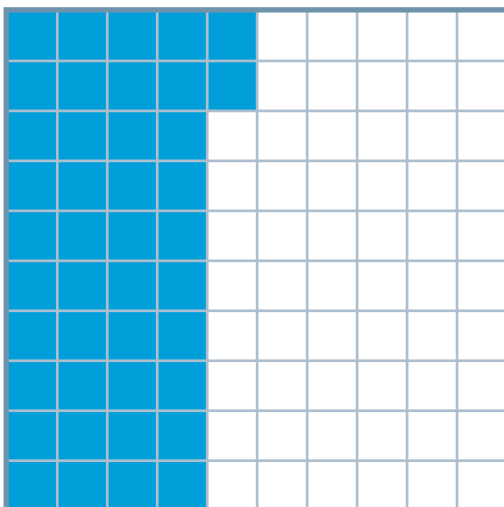
6



Fractions:

Decimals:

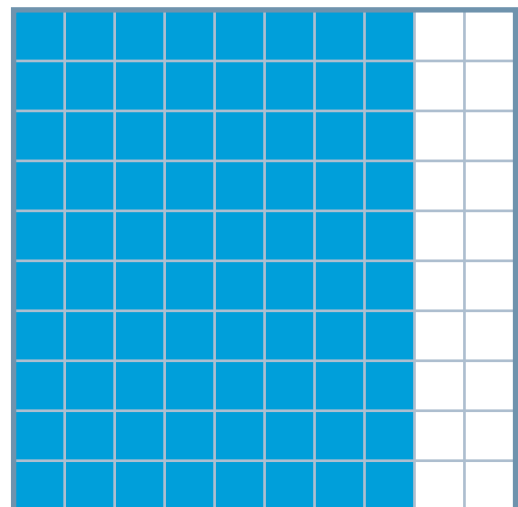
7



Fractions:

Decimals:

8



Fractions:

Decimals:



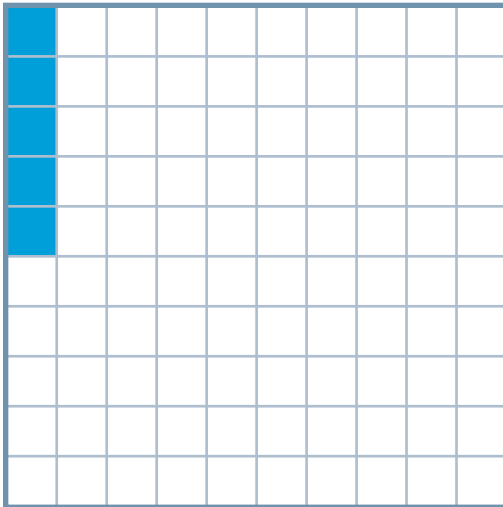
NAME _____

DATE _____

(PAGE 3 OF 3)

How Much of the Garden Is Planted?

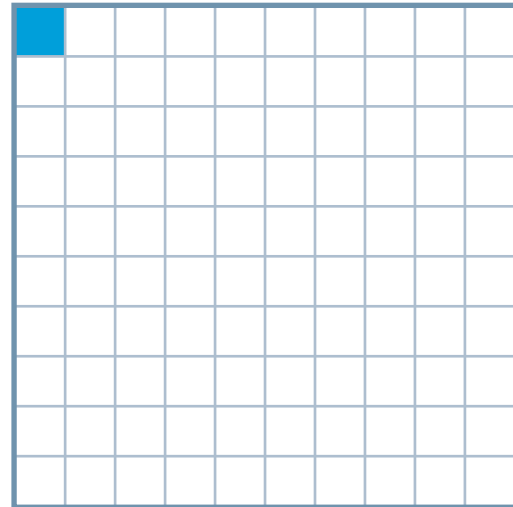
9



Fractions:

Decimals:

10



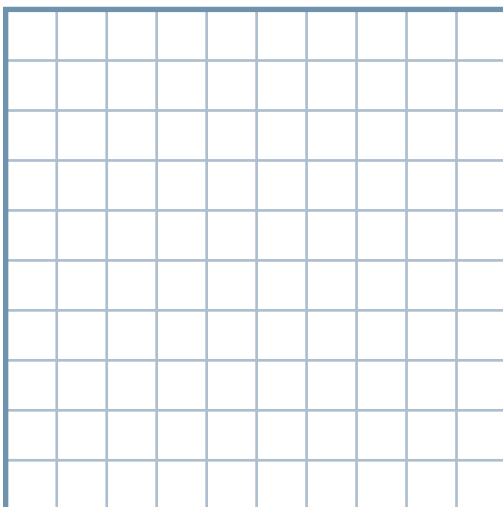
Fractions:

Decimals:

For Problems 11 and 12, shade in the described part and answer the question.

11

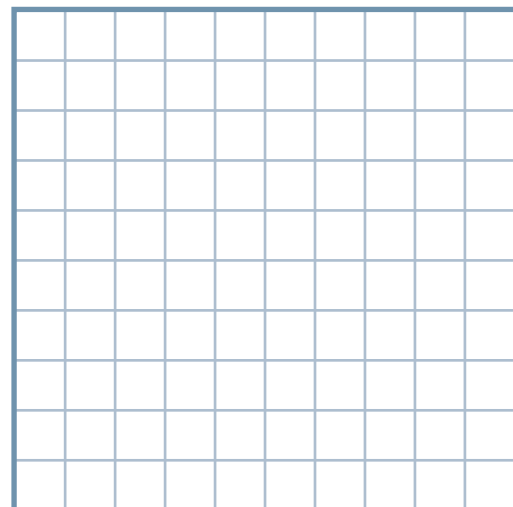
In this garden, 0.40 is planted with beans. Shade in the part planted with beans.



What are other ways you know to write this amount?

12

In this garden, 0.98 is planted with onions. Shade in the part planted with onions.



What are other ways you know to write this amount?



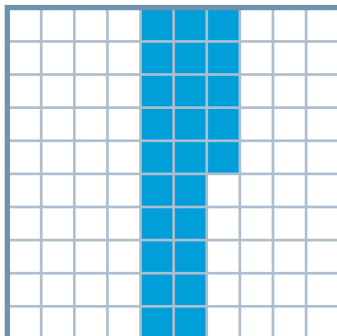
NAME _____

DATE _____

How Much Is Shaded?

Look at the shaded part of each grid. Under each grid, write what part is shaded using a fraction and a decimal. Write more than one fraction and one decimal if you can.

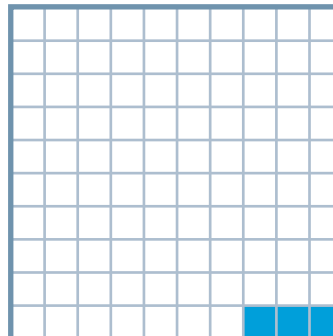
1



Fractions:

Decimals:

2

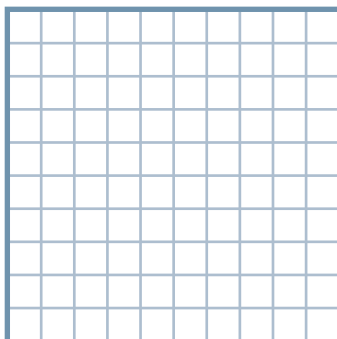


Fractions:

Decimals:

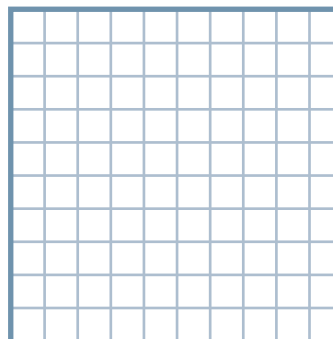
3

Shade in 0.80. What are other ways you know to write this amount?



4

Shade in 0.43. What are other ways you know to write this amount?



5

Which number is **not** equivalent to 0.64?

Ⓐ $\frac{64}{100}$

Ⓑ 0.064

Ⓒ 0.640

NOTE

Students identify shaded parts of a grid and name them with fractions and decimals.

MWI Decimals to Thousandths; Equivalent Decimals and Fractions



NAME _____

DATE _____

Solving Division Problems

1

a. Write a story problem that can be represented with $19 \overline{)665}$.

b. Solve $19 \overline{)665}$. Show your solution clearly.

2

a. Write a story problem that can be represented with $1,152 \div 24$.

b. Solve $1,152 \div 24$. Show your solution clearly.

Ongoing Review

3

Which number is **not** a multiple of 15?

(A) 250

(B) 300

(C) 345

(D) 600

NOTE

Students practice solving division problems.

MWI Division Strategies: 2-Digit Divisors



NAME _____

DATE _____

(PAGE 1 OF 2)

About the Mathematics in This Unit

Dear Family,

Our class is starting a new mathematics unit about decimals called *Between 0 and 1*. In this unit, students investigate the meaning of decimals. They develop an understanding of the relationships between fractions and decimals, and they use knowledge of number relationships and a variety of representations and models to compare and order decimals and to add and subtract decimals.

Throughout the unit, students work toward these goals:

Benchmarks/Goals	Examples												
Write, compare, and round decimals to thousandths.	What is the order of these decimals from least to greatest? 0.7, 0.333, 0.45 <i>To solve this problem, I thought about tenths.</i> <i>0.7 is seven tenths.</i> <i>0.333 is a little more than three tenths.</i> <i>0.45 is between four tenths and five tenths.</i>  $0.333 < 0.45 < 0.7$												
Add and subtract decimals.	A jeweler has 3 small pieces of gold that weigh 2.2 grams, 1.06 grams, and 1.425 grams. How much gold does the jeweler have in all? <table><tr><td>Estimate</td><td>Solution</td></tr><tr><td>2.2 is close to 2.</td><td>$2 + 1 + 1 = 4$</td></tr><tr><td>1.06 is close to 1.</td><td>$0.2 + 0.4 = 0.6$</td></tr><tr><td>1.425 is close to $1\frac{1}{2}$.</td><td>$0.06 + 0.02 = 0.08$</td></tr><tr><td></td><td>$+ 0.005$</td></tr><tr><td></td><td><u>4.685</u></td></tr></table> The answer should be about $4\frac{1}{2}$ or about 4.5.	Estimate	Solution	2.2 is close to 2.	$2 + 1 + 1 = 4$	1.06 is close to 1.	$0.2 + 0.4 = 0.6$	1.425 is close to $1\frac{1}{2}$.	$0.06 + 0.02 = 0.08$		$+ 0.005$		<u>4.685</u>
Estimate	Solution												
2.2 is close to 2.	$2 + 1 + 1 = 4$												
1.06 is close to 1.	$0.2 + 0.4 = 0.6$												
1.425 is close to $1\frac{1}{2}$.	$0.06 + 0.02 = 0.08$												
	$+ 0.005$												
	<u>4.685</u>												



NAME

DATE

(PAGE 2 OF 2)

About the Mathematics in This Unit

In our math class, students spend time discussing problems in depth and are asked to share their reasoning and solutions. It is most important that students accurately and efficiently solve math problems in ways that make sense to them. At home, encourage your child to explain his or her math thinking to you. Please look for more information and activities about *Between 0 and 1* that will be sent home in the coming weeks.



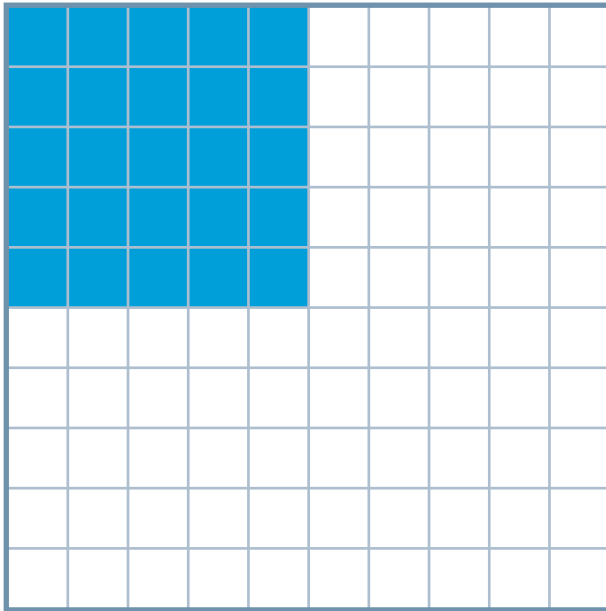
NAME _____

DATE _____

(PAGE 1 OF 2)

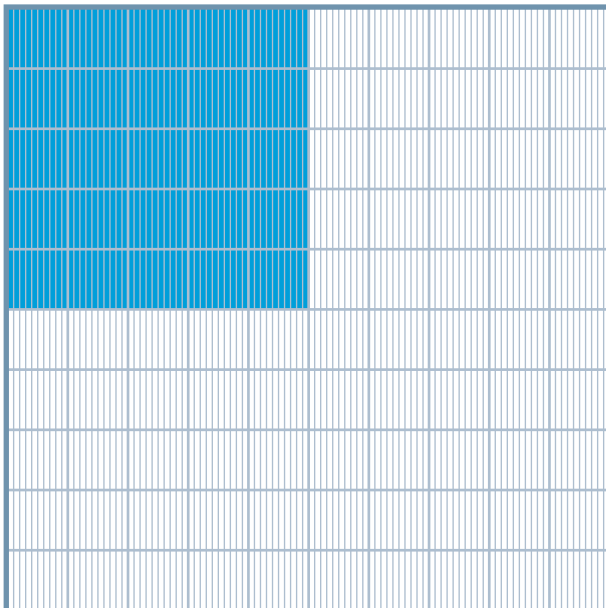
Hundredths and Thousandths

Look at the shaded part of each grid. Next to each grid, write what part is shaded using a fraction and a decimal. Write more than one fraction and one decimal if you can.



Fractions: _____

Decimals: _____



Fractions: _____

Decimals: _____



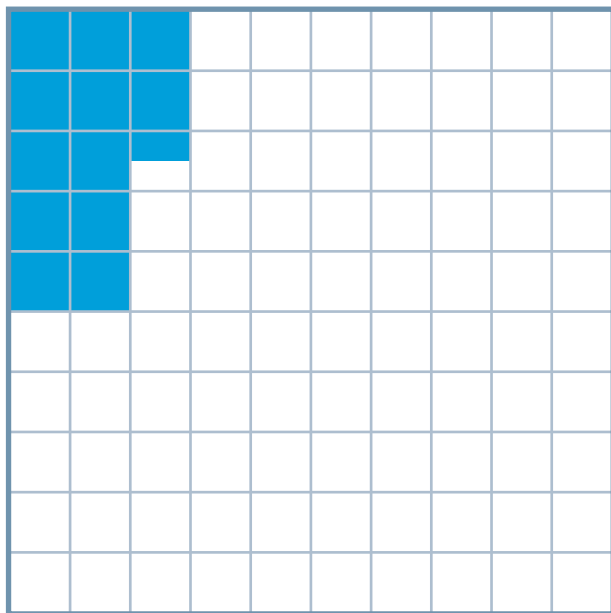
NAME _____

DATE _____

(PAGE 2 OF 2)

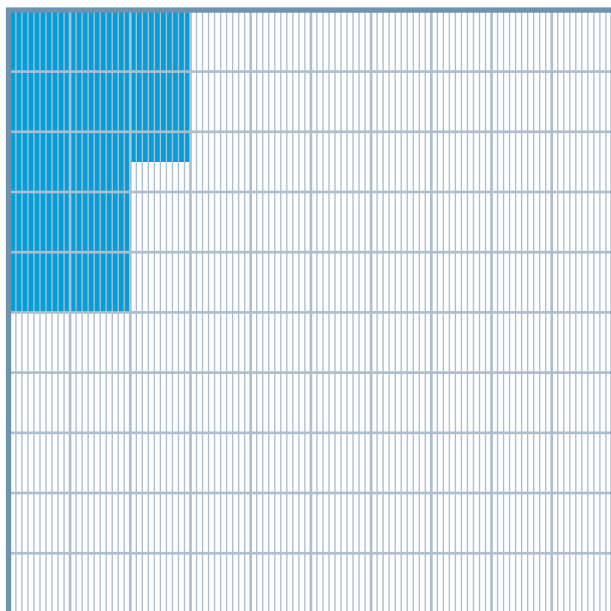
Hundredths and Thousandths

Look at the shaded part of each grid. Next to each grid, write what part is shaded using a fraction and a decimal. Write more than one fraction and one decimal if you can.



Fractions: _____

Decimals: _____



Fractions: _____

Decimals: _____



NAME _____

DATE _____

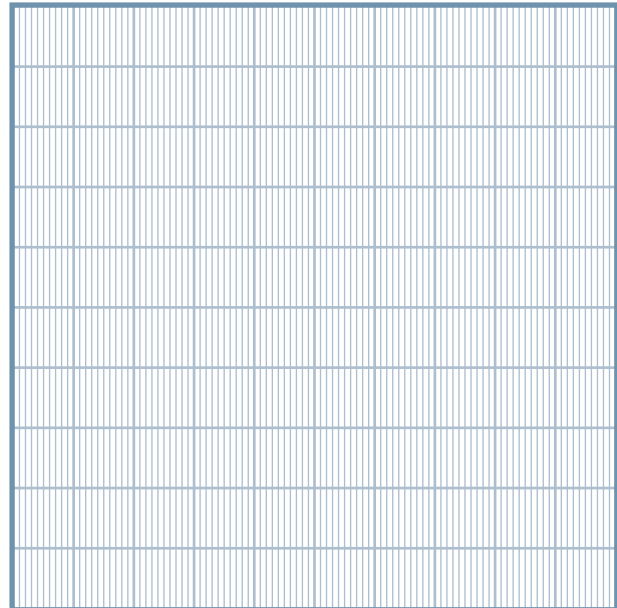
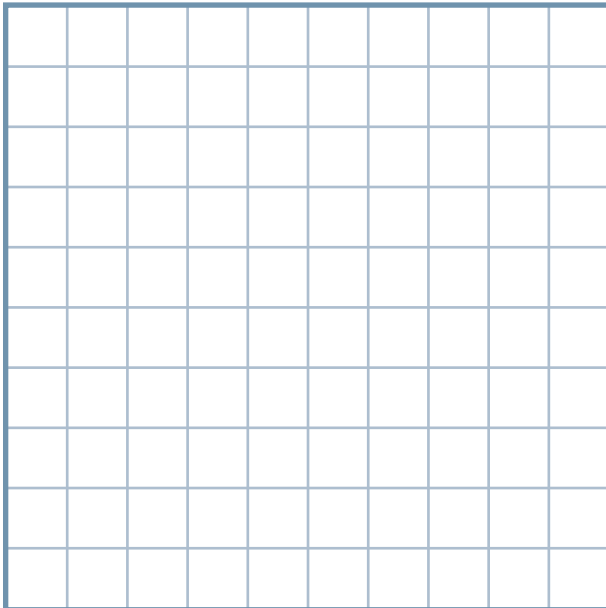
(PAGE 1 OF 6)

Decimals on Hundredths and Thousandths Grids

Shade in the grids. Under each grid, write what part is shaded using a fraction and a decimal. Write more than one fraction and one decimal if you can.

1

Shade in 0.75 on each grid.



Decimals: 0.75, _____

Fractions: _____

Decimals: 0.75, _____

Fractions: _____



NAME _____

DATE _____

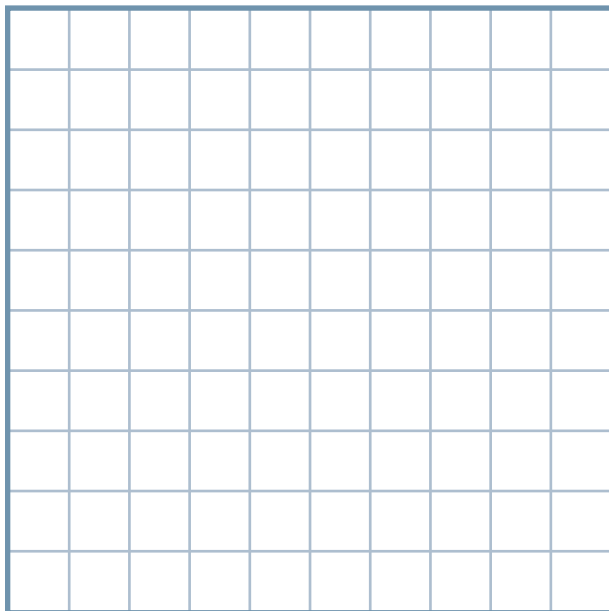
(PAGE 2 OF 6)

Decimals on Hundredths and Thousandths Grids

Shade in the grids. Under each grid, write what part is shaded using a fraction and a decimal. Write more than one fraction and one decimal if you can.

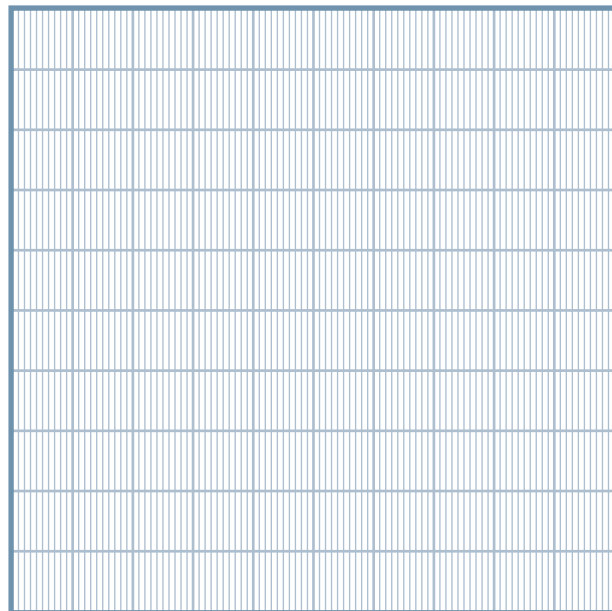
2

Shade in 0.125 on each grid.



Decimals: 0.125, _____

Fractions:



Decimals: 0.125, _____

Fractions:



NAME _____

DATE _____

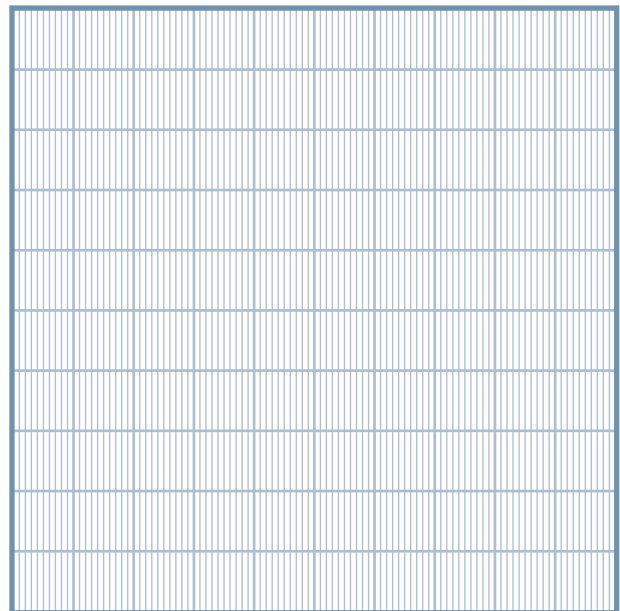
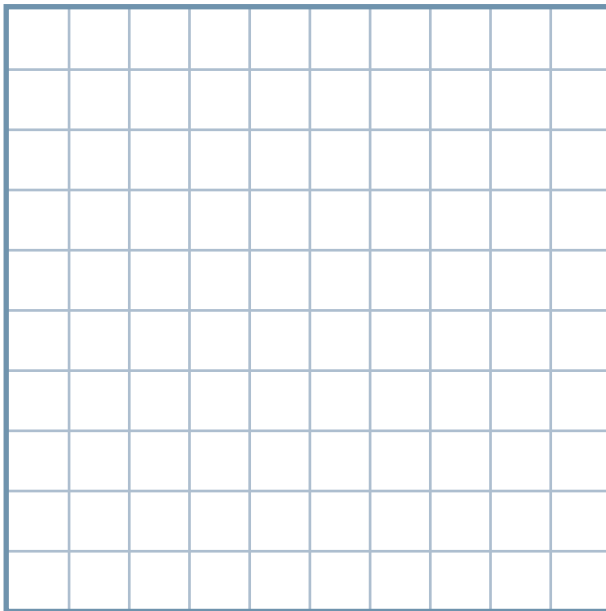
(PAGE 3 OF 6)

Decimals on Hundredths and Thousandths Grids

Shade in the grids. Under each grid, write what part is shaded using a fraction and a decimal. Write more than one fraction and one decimal if you can.



Shade in 0.3 on each grid.



Decimals: 0.3, _____

Fractions: _____

Decimals: 0.3, _____

Fractions: _____



NAME _____

DATE _____

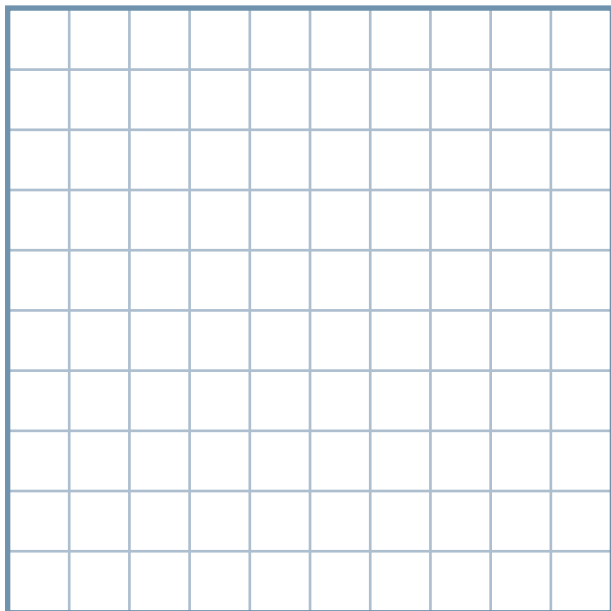
(PAGE 4 OF 6)

Decimals on Hundredths and Thousandths Grids

Shade in the grids. Under each grid, write what part is shaded using a fraction and a decimal. Write more than one fraction and one decimal if you can.

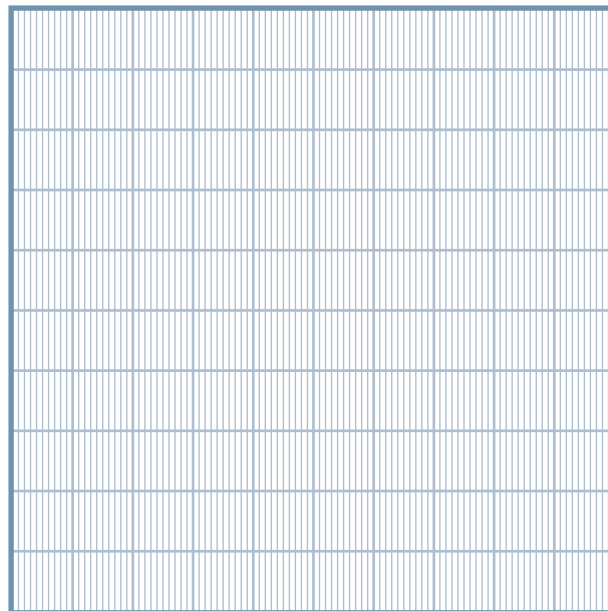
4

Shade in 0.15 on each grid.



Decimals: 0.15, _____

Fractions:



Decimals: 0.15, _____

Fractions:



NAME _____

DATE _____

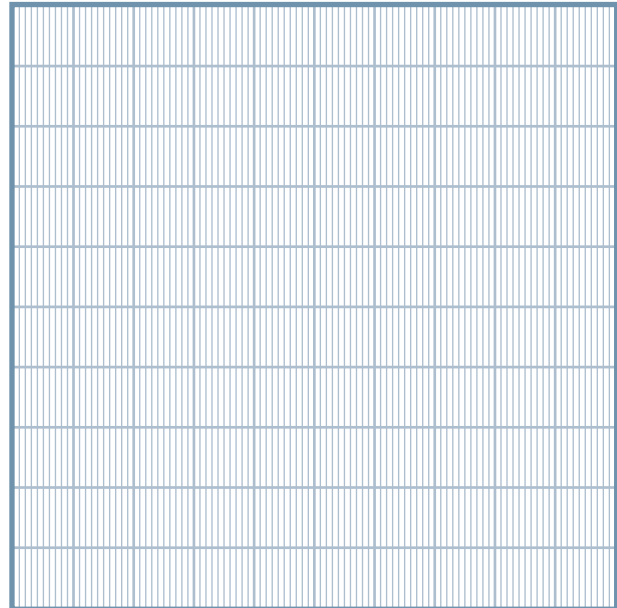
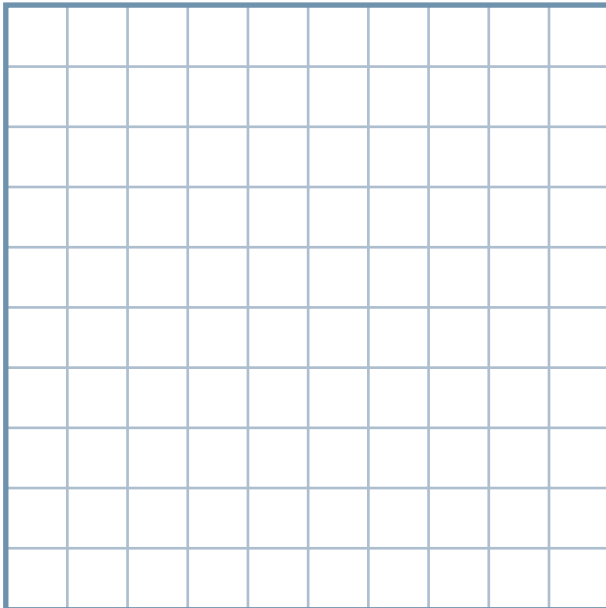
(PAGE 5 OF 6)

Decimals on Hundredths and Thousandths Grids

Shade in the grids. Under each grid, write what part is shaded using a fraction and a decimal. Write more than one fraction and one decimal if you can.



Shade in 0.78 on each grid.



Decimals: 0.78, _____

Fractions: _____

Decimals: 0.78, _____

Fractions: _____



NAME _____

DATE _____

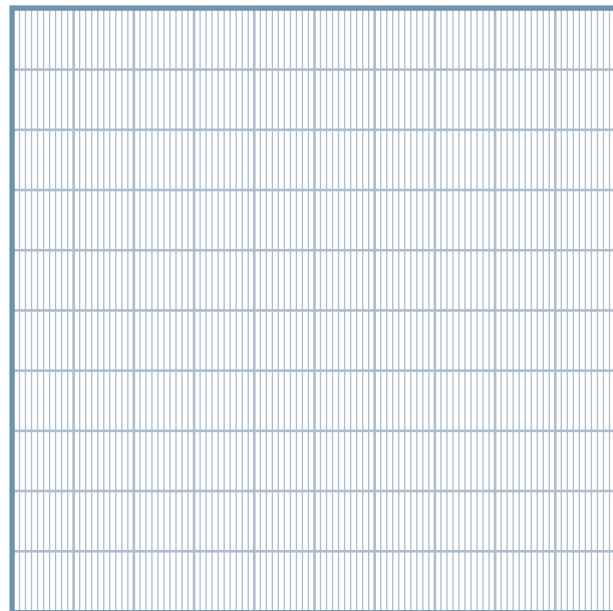
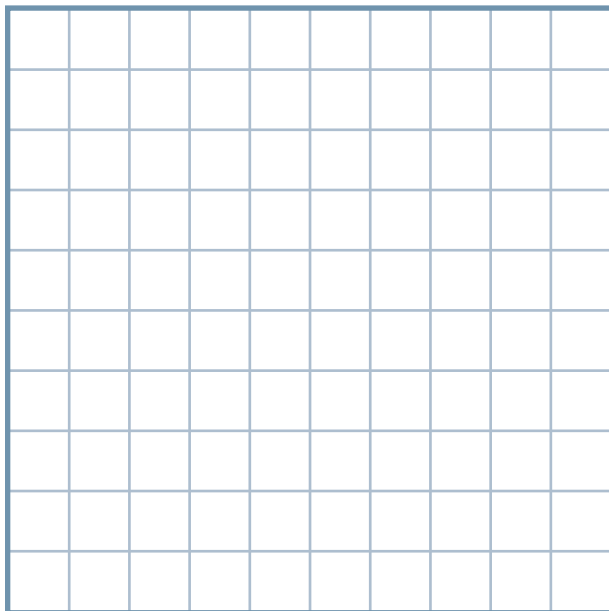
(PAGE 6 OF 6)

Decimals on Hundredths and Thousandths Grids

Shade in the grids. Under each grid, write what part is shaded using a fraction and a decimal. Write more than one fraction and one decimal if you can.



Shade in 0.625 on each grid.



Decimals: 0.625, _____

Fractions: _____

Decimals: 0.625, _____

Fractions: _____



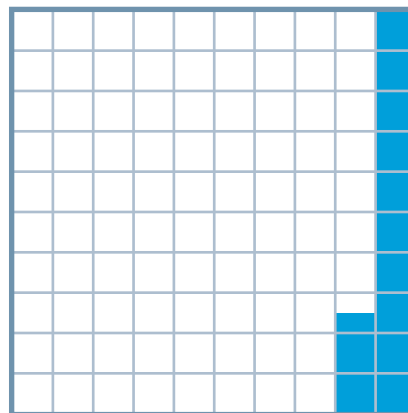
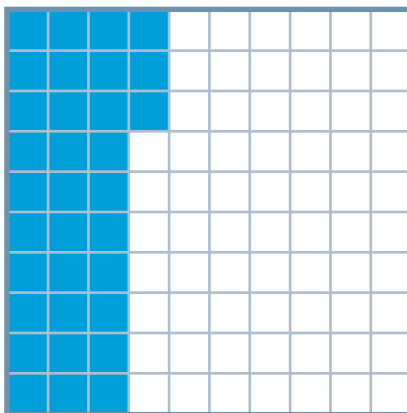
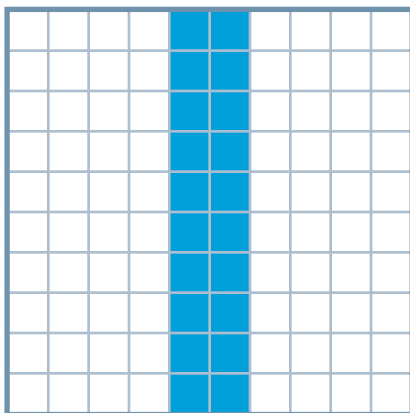
NAME _____

DATE _____

Matching Shaded Portions

1

Match each grid to the fractions and decimals that describe the shaded part of the grid.



$$\frac{125}{1000}$$

$$\frac{200}{1000}$$

$$0.33$$

$$0.2$$

$$0.125$$

$$\frac{33}{100}$$

$$\frac{20}{100}$$

Ongoing Review

2

Which equation is **not** true?

Ⓐ $0.500 = \frac{500}{1000}$

Ⓒ $0.75 = \frac{75}{100}$

Ⓑ $0.375 = \frac{375}{100}$

Ⓓ $\frac{9}{10} = 0.9$

NOTE

Students match the shaded portion of the grid with the correct decimal and fractions.

MWI Decimals to Thousandths; Equivalent Decimals and Fractions



NAME _____

DATE _____

(PAGE 1 OF 2)

Comparing Decimals

Compare each pair of decimals. Show which one is greater using a $<$ or $>$ sign. Explain how you determined which decimal is greater.

1

Which is greater, 0.365 or 0.28?

2

Margaret ran 1.62 miles. Alex ran 0.97 mile.
Who ran farther?

3

Which is greater, 1.56 or 1.29?

4

On Monday, it rained 2.06 inches. On Tuesday, it rained 2.24 inches. On which day did it rain more?



NAME _____

DATE _____

(PAGE 2 OF 2)

Comparing Decimals

Compare each pair of decimals. Show which one is greater using a $<$ or $>$ sign. Explain how you determined which decimal is greater.

5

Which is greater, 0.575 or 0.581?

6

Which is greater, 0.28 or 0.205?

7

Felix used 1.64 meters of fabric to make a pair of pants. Alicia used 1.71 meters of fabric to make a skirt. Who used more fabric?

8

Which is greater, 0.024 or 0.102?



NAME _____

DATE _____

Solving Multiplication and Division Problems

Solve each problem. Show your work.

1

87×64 _____

2

$6,921 \div 3$ _____

3

532×48 _____

4

An art teacher orders 15 cases of crayons. Each case has 48 boxes of crayons in it. How many boxes of crayons does the art teacher get?

Ongoing Review

5

Solve this problem: $\frac{2}{5} + \frac{1}{3} =$ _____.

Ⓐ $\frac{3}{8}$

Ⓑ $\frac{11}{30}$

Ⓒ $\frac{11}{15}$

Ⓓ $\frac{1}{15}$

NOTE

Students solve multiplication and division problems.

MWI Multiplication Strategies; Division Strategies: 2-Digit Divisors



NAME _____

DATE _____

More Comparing Decimals

Compare each pair of decimals. Show which one is greater using a $<$ or $>$ sign. Explain how you determined which decimal is greater.

1

Which is greater, 0.34 or 0.678?

2

Felix lives 1.25 miles from the library. Stuart lives 1.4 miles from the library. Who lives farther from the library?

3

Which is greater, 0.53 or 0.524?

4

Which is greater, 1.23 or 2.5?

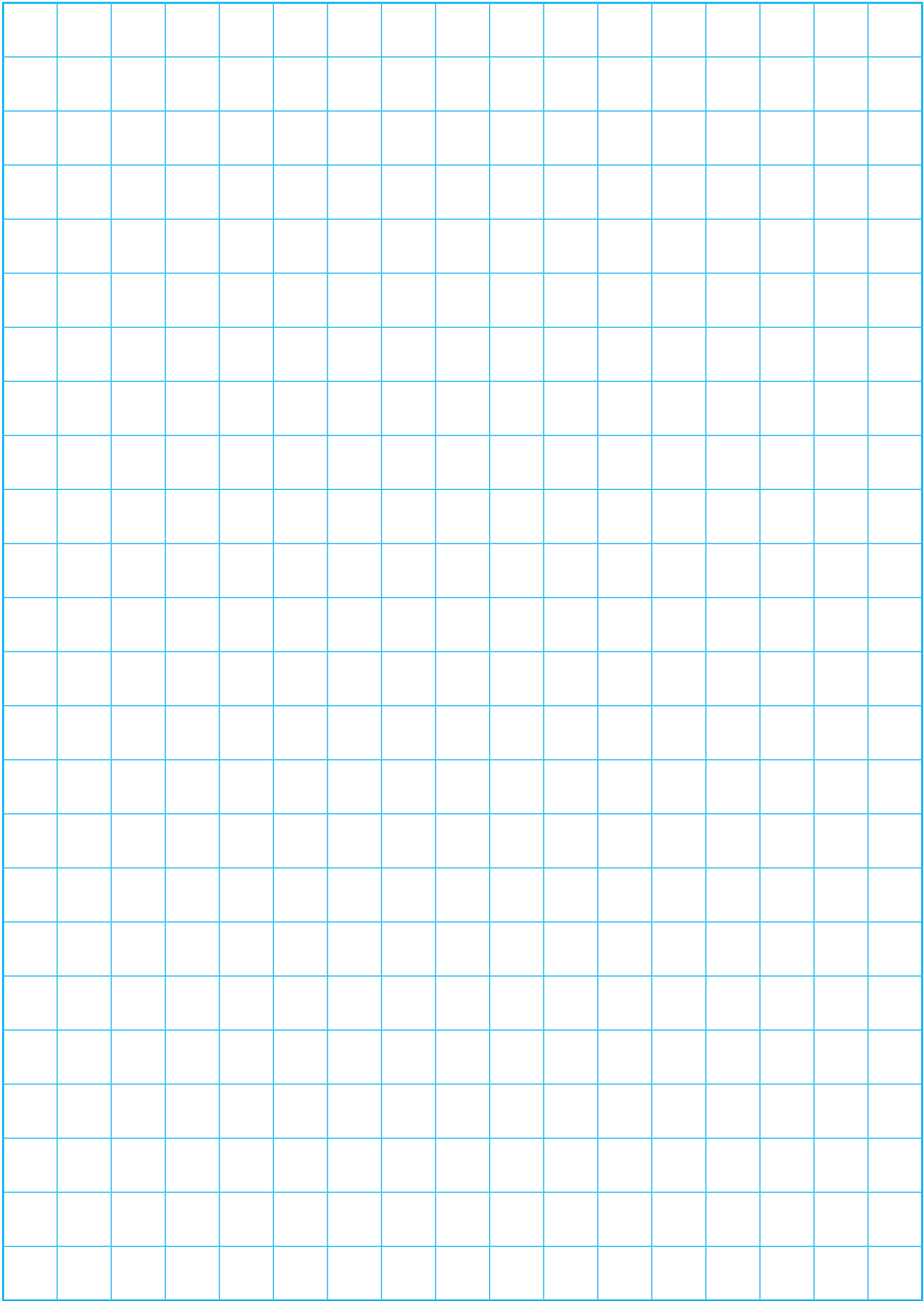
5

Cecilia put 4.932 gallons of gas in her car. Janet put 4.821 gallons of gas in her car. Who put more gas in her car?

NOTE

Students compare decimals.

MW1 Comparing and Ordering Decimals



DATE

Tenths

Hundredths

Thousandths

Ten Thousandths

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NAME _____

DATE _____

Ordering Decimals

For each number line, deal out five Decimal Cards and mark each decimal on the number line.

1



2



3



4





NAME _____

DATE _____

Solve Two Ways

Solve each problem using the U.S. standard algorithm and one other way. Show your work clearly.

1

$76 \times 29 = \underline{\hspace{2cm}}$

U.S. standard algorithm:

Second way:

2

$158 \times 46 = \underline{\hspace{2cm}}$

U.S. standard algorithm:

Second way:

3Which of the following is **true**?

Ⓐ $80 \times 10 > 50 \times 20$

Ⓒ $50 \times 6 < 7 \times 40$

Ⓑ $30 \times 70 > 20 \times 100$

Ⓓ $100 \times 70 < 30 \times 30$

NOTE

Students practice flexibility with solving multiplication problems and use one method to check the other.

MWI Multiplication Strategies; U.S. Standard Algorithm for Multiplication



NAME

DATE

Ordering Precipitation Amounts

Here are 30-year averages of monthly precipitation for two cities. Put the months in order from the least amount of average precipitation per month to the greatest amount of average precipitation per month. All amounts are recorded in inches.

1

Pueblo, Colorado*

January: 0.35 February: 0.30 March: 0.93 April: 1.4 May: 1.51

Month	Amount of Precipitation (in.)

2

Bridgeport, Connecticut*

January: 3.1 February: 2.79 March: 4.05 April: 4.13 May: 3.8

Month	Amount of Precipitation (in.)

*Data are for the years 1981–2010.

NOTE

Students practice ordering decimals.

MWI Comparing and Ordering Decimals



NAME _____

DATE _____

(PAGE 1 OF 2)

Related Activities to Try at Home

Dear Families,

The activities below are related to the mathematics in the unit *Between 0 and 1*. You can use the activities to enrich your child's mathematical learning experience.

Everyday Decimals In this unit, students investigate decimals as ways to represent numbers less than 1 (e.g., 0.75 pound of deli cheese) and numbers between whole numbers (e.g., The marathon is 26.2 miles long.). You can build on your child's work in this unit by looking for everyday examples of decimals and talking about what they mean. Discuss problem situations that involve decimals as they arise.

- Look in the newspaper or online at the weather statistics for your area. What is the average amount of precipitation for the month? How much rain or snow has there been so far this month? How close are you to the average?

January average: 4.80 inches

So far this month: 3.94 inches

- Track your favorite sports teams' records.

2014 baseball season:

Wins: 71

Losses: 91

$$\frac{71 \text{ wins}}{162 \text{ games}} \approx 0.438$$

2015 baseball season:

Wins: 78

Losses: 84

$$\frac{78 \text{ wins}}{162 \text{ games}} \approx 0.481$$



NAME

DATE

(PAGE 2 OF 2)

Related Activities to Try At Home

How Did You Solve That? Ask your child to tell you about how he or she is solving problems. Also ask your child to record his or her work so that you can understand it. If some of the strategies your child is using are unfamiliar to you, ask your child to explain them carefully. Learning to clearly communicate thinking to others is an important emphasis in this unit.



NAME _____

DATE _____

Which Is Greater?

Use $<$, $>$, or $=$ for each comparison. Show or explain how you determined the answer.

1

$0.15 \quad \underline{\hspace{1cm}} \quad \frac{125}{1000}$

2

$\frac{97}{100} \quad \underline{\hspace{1cm}} \quad 0.95$

3

$0.75 \quad \underline{\hspace{1cm}} \quad 0.750$

4

A pudding recipe calls for 0.355 liter of milk. Tavon has 0.5 liter of milk at home. Does he have enough milk for the pudding recipe?

5

Tavon put 4.63 ounces of chocolate in his pudding. Nora put 4.625 ounces of chocolate in her pudding. Who put more chocolate in his or her pudding?

NOTE

Students practice comparing decimals.

MW1 Comparing and Ordering Decimals; Fractions and Decimals



NAME _____

DATE _____

More Precipitation

Here are 30-year averages of monthly precipitation for two cities. Put the months in order from the least amount of average precipitation per month to the greatest amount of average precipitation per month. All amounts are recorded in inches.

1

Mobile, Alabama*

January: 5.65 February: 5.12 March: 6.14 April: 4.79 May: 5.14

Month	Amount of Precipitation (in.)

2

Nome, Alaska*

June: 0.98 July: 2.11 August: 3.22 September: 2.45 October: 1.61

Month	Amount of Precipitation (in.)

*Data are for the years 1981–2010.

NOTE

Students practice ordering decimals.

MWI Comparing and Ordering Decimals



NAME _____

DATE _____

Rounding Decimals

For each problem below, use a number line or a hundredths or thousandths grid to show your work.

Round each number to the nearest tenth.

1

3.52 _____

2

1.45 _____

Round each number to the nearest hundredth.

3

0.773 _____

4

1.208 _____

Round each number to the nearest one.

5

0.8 _____

6

1.725 _____



NAME _____

DATE _____

Practice with Rounding

1

Circle the numbers that round to 4 when they are rounded to the nearest one.

4.703

4.28

3.6

4.5

3.29

4.09

2

Circle the numbers that round to 5.1 when they are rounded to the nearest tenth.

4.97

5.172

5.116

5.084

5.15

5.05

3

Circle the numbers that round to 0.80 when they are rounded to the nearest hundredth.

0.805

0.803

8.021

0.796

0.806

0.792

Ongoing Review

4

Solve this problem: $23 \times 42 =$ _____.

Ⓐ 138

Ⓑ 246

Ⓒ 866

Ⓓ 966

NOTE

Students round to the nearest one, tenth, or hundredth.

MWI Rounding Decimals



NAME _____

DATE _____

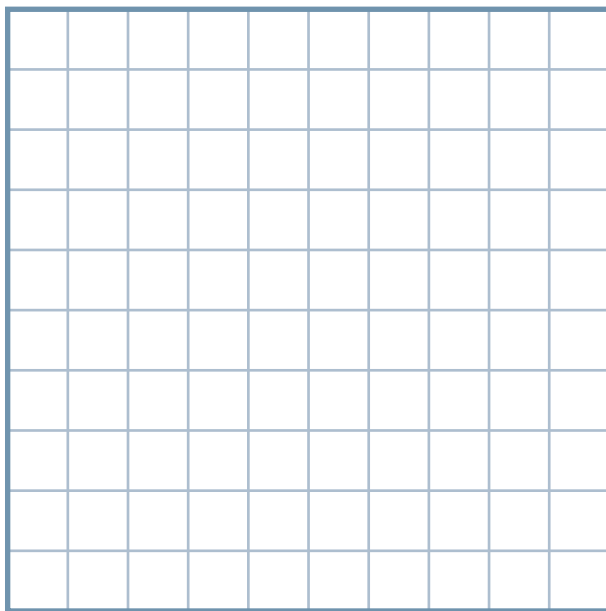
(PAGE 1 OF 3)

Decimal Problems

Shade in the grids. Under each grid, write fraction and decimal equivalents.

1

Shade in 0.5.

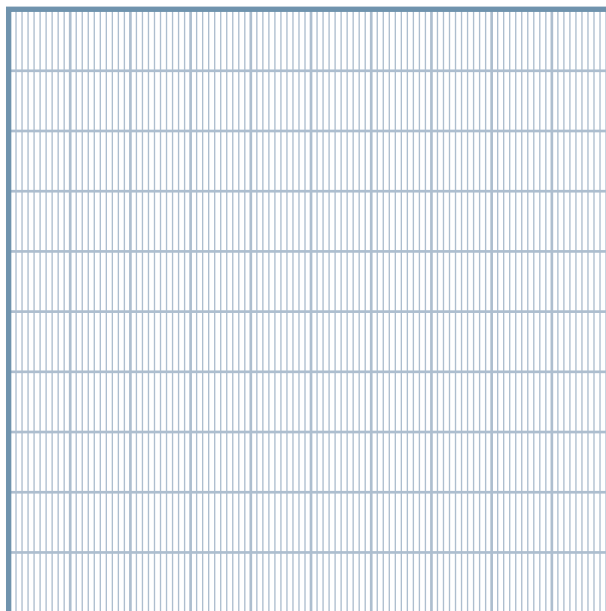


Decimals: 0.5, _____

Fractions: _____

2

Shade in 0.295.



Decimals: 0.295, _____

Fractions: _____



NAME _____

DATE _____

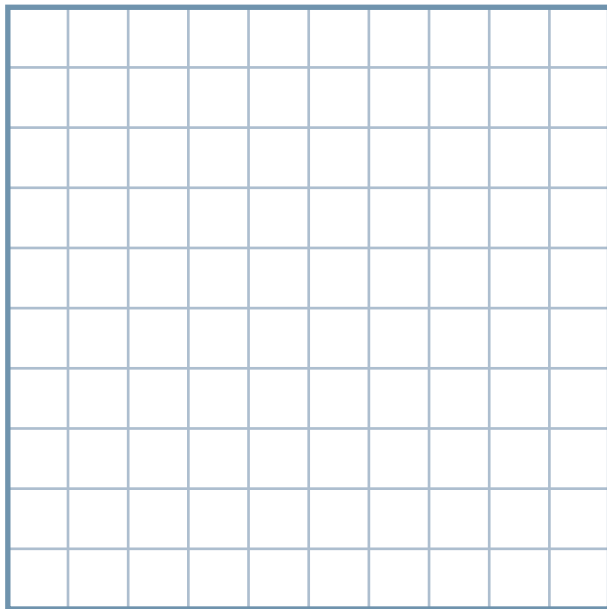
(PAGE 2 OF 3)

Decimal Problems

Shade in the grids. Under each grid, write fraction and decimal equivalents.

3

Shade in 0.83.

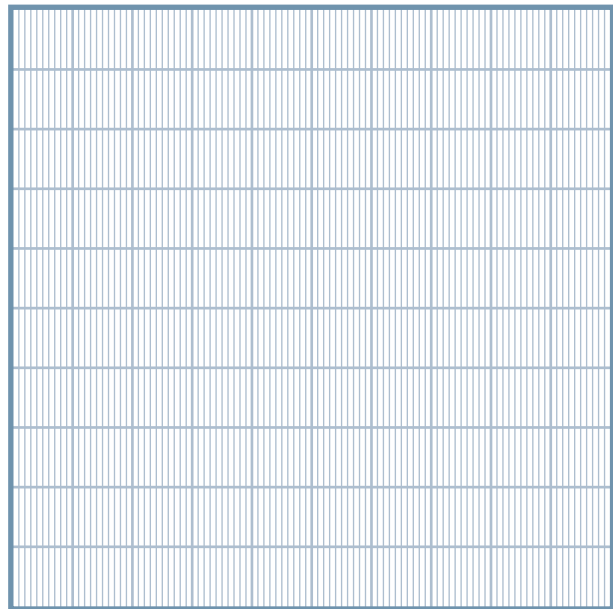


Decimals: 0.83, _____

Fractions: _____

4

Shade in 0.150.



Decimals: 0.150, _____

Fractions: _____



NAME _____

DATE _____

(PAGE 3 OF 3)

Decimal Problems

Solve the following problems.

5

Mitch and Hana have gardens that are the same size.

Mitch planted 0.250 of his garden with tomatoes.

Hana planted $\frac{375}{1000}$ of her garden with tomatoes.

Who planted more of their garden with tomatoes?

Explain how you found your answer.

6

Mitch planted 0.6 of his garden with corn. Hana planted 0.505 of her garden with corn. Who planted more of their garden with corn? Explain how you found your answer.

For Problems 7 and 8, use $<$, $>$, or $=$ to compare the decimals. Explain your thinking.

7

0.302 _____ 0.096

8

0.45 _____ 0.152



NAME _____

DATE _____

Rounding Practice

1

The masses of four puppies are shown at the right. Round each mass to the nearest hundredth of a kilogram.

_____, _____
Peppy Brownie

_____, _____
Snap Lotty

Name of Puppy	Mass
Peppy	0.480 kilogram
Brownie	1.447 kilograms
Snap	2.963 kilograms
Lotty	1.766 kilograms

2

The finishing times for four 100-meter runners are shown at the right. Round each time to the nearest tenth of a second.

_____, _____
Joshua Martin

_____, _____
Nora Alicia

Student	Finishing Time
Joshua	11.48 seconds
Martin	11.62 seconds
Nora	11.97 seconds
Alicia	12.02 seconds

3

Round the following decimals to the nearest one.

- a. 3.79 _____
- b. 4.2 _____

Ongoing Review

4

Which comparison is **not** true?

- Ⓐ $0.15 < 0.015$ Ⓒ $0.633 = \frac{633}{1000}$
- Ⓑ $2.275 > 1.355$ Ⓓ $0.125 < 0.25$

NOTE

Students practice rounding decimals.

MWI Rounding Decimals



NAME _____

DATE _____

Swim Meet: 200-Meter Butterfly

For each race below, place the finishing times in order from fastest to slowest. Times are recorded in minutes and seconds. For example, 2:13.23 means 2 minutes, 13 and 23 hundredths seconds.

200-Meter Butterfly: Women

Name	Time
Cassidy Bayer	2:08.03
Christina Bechtel	2:09.20
Hali Flickinger	2:07.59
Katherine Mills	2:11.04
Alys Margaret Thomas	2:09.59

Place	Time
1st	
2nd	
3rd	
4th	
5th	

200-Meter Butterfly: Men

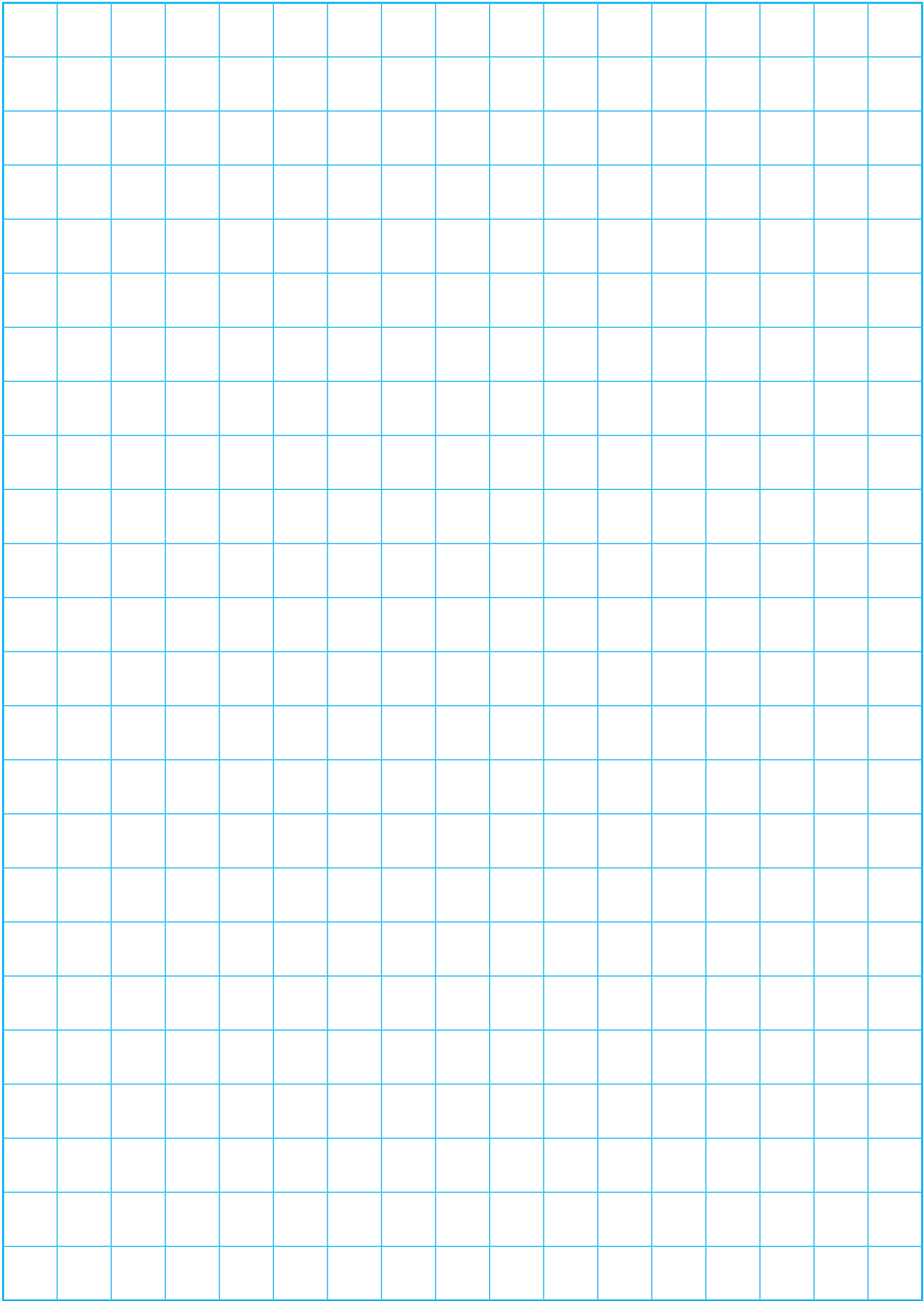
Name	Time
Pace Clark	1:56.84
Jack Conger	1:54.54
Dakota Hodgson	1:57.51
Michael Phelps	1:52.94
Clark Smith	1:57.83

Place	Time
1st	
2nd	
3rd	
4th	
5th	

NOTE

Students practice ordering decimals by using information from the 2015 Swimming U.S. National Championships.

MWI Comparing and Ordering Decimals





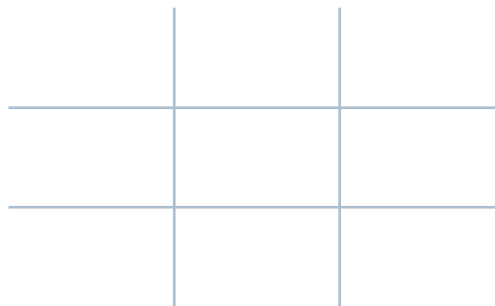
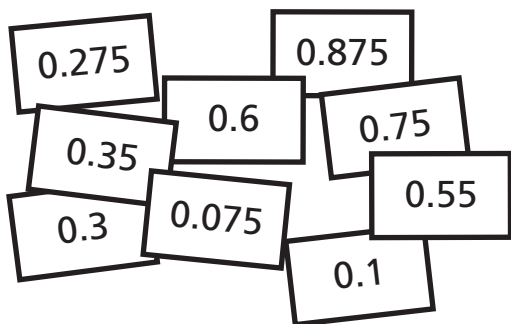
NAME _____

DATE _____

Smaller to Larger

1

Arrange the decimals on the grid so that each row from left to right and each column from top to bottom is in increasing order.

**2**

Use $>$, $<$, or $=$ to compare the following pairs of decimals.

0.042 _____ 0.115 0.7 _____ 0.062 0.019 _____ 0.12

Ongoing Review

3

Which decimal has the smallest value?

(A) 0.5

(B) 0.050

(C) 0.005

(D) 0.1

NOTE

Students practice ordering decimals from least to greatest, both horizontally and vertically, on a grid.

MWI Comparing and Ordering Decimals



NAME _____

DATE _____

Birds and Bugs

1

Round each wingspan to the nearest whole centimeter.

	Wingspan	Rounded to the nearest one
Crow 1	87.2 cm	
Crow 2	90.517 cm	
Crow 3	99.63 cm	
Crow 4	84.062 cm	

2

Round each length to the nearest tenth of a centimeter.

	Length	Rounded to the nearest tenth
Beetle 1	1.49 cm	
Beetle 2	1.107 cm	
Beetle 3	0.83 cm	
Beetle 4	1.52 cm	

3

Round each wingspan to the nearest hundredth of a centimeter.

	Wingspan	Rounded to the nearest hundredth
Moth 1	3.728 cm	
Moth 2	2.966 cm	
Moth 3	1.905 cm	
Moth 4	4.323 cm	

NOTE

Students round to the nearest whole, tenth, or hundredth of a centimeter.

MWI Rounding Decimals



NAME _____

DATE _____

Collections

Solve each problem. Show your work.

1

Walter buys stickers in packages of 36 for his sticker collection. Last year he bought 97 packages of stickers. How many stickers did he buy?

2

a. Zachary wants to sell his marble collection at a yard sale. He has 744 marbles and he wants to put them into bags with 24 marbles in each bag. How many bags of marbles will he have?

b. If Zachary sells each bag of marbles for \$14 at the yard sale, how much money will he earn by selling his marble collection?

3

a. Georgia has 580 sport cards in her collection, which she keeps in a binder that holds 32 cards on a page. How many pages are filled with cards?

b. Georgia paid \$1.50 for each sport card. How much did she spend to buy all of the cards in her collection?

NOTE

Students practice solving multiplication and division problems in story contexts.

MWI Multiplication Strategies; Division Strategies: 2-Digit Divisors



NAME _____

DATE _____

Precipitation in the Desert

These are 30-year averages of monthly precipitation for Phoenix and Las Vegas. For each city, put the months in order from the least average amount of precipitation per month to the greatest average amount. All amounts are recorded in inches.

1

Phoenix, Arizona*

January: 0.91

February: 0.92

April: 0.28

May: 0.11

June: 0.02

Month	Precipitation (in.)

2

Las Vegas, Nevada*

August: 0.33

September: 0.25

October: 0.27

November: 0.36

December: 0.5

Month	Precipitation (in.)

*Data are for the years 1981–2010.

NOTE

Students practice ordering decimals.

MWI Comparing and Ordering Decimals



NAME _____

DATE _____

The Jeweler's Gold

In your small groups, do the following:

1

Solve the problem below. Everyone should agree on what the answer is.

2

Create a poster showing your answer and explaining how you added the numbers together.

Problem

Janet is a jeweler. When she makes new jewelry or redesigns jewelry, she is often left with small pieces of gold. At the end of one day of work, Janet had pieces of gold that weighed 0.3 gram, 1.14 grams, and 0.085 gram. How much gold did Janet have left?



NAME _____

DATE _____

Closest Estimate

Each problem below has a choice of three estimates. Which one do you think is closest? Choose the closest estimate without solving the problem. Circle it. Then write about why you think this estimate is the closest.

1

The closest estimate for 83×29 is: 2,000 2,400 2,800
I think this is the closest because:

2

The closest estimate for 69×38 is: 1,800 2,200 2,600
I think this is the closest because:

3

The closest estimate for 26×211 is: 4,500 5,000 5,500
I think this is the closest because:

4

The closest estimate for 496×18 is: 900 9,000 90,000
I think this is the closest because:

5

Choose one or more of the problems above and, on a separate sheet of paper, solve it to get an exact answer. Show your solutions with equations. Did you choose the closest estimates?

NOTE

Students practice strategies for estimating products. Then they find one or more exact products and compare them to their estimates.

MWI Multiplication Strategies

Decimals In Between Problems

Talisha and Avery are working together to play a perfect game in which they place all of the cards. They have each played one card. Write the rest of Talisha's and Avery's decimals in the blank cards in the game below to show how every card can be played.

Talisha's cards:

0.475

0.325

0.25

0.95

0.75

Avery's cards:

0.3

0.05

0.55

0.8

0.65

Game:

0	0.025							$1\frac{1}{2}$		0.975	1
---	-------	--	--	--	--	--	--	----------------	--	-------	---

NOTE

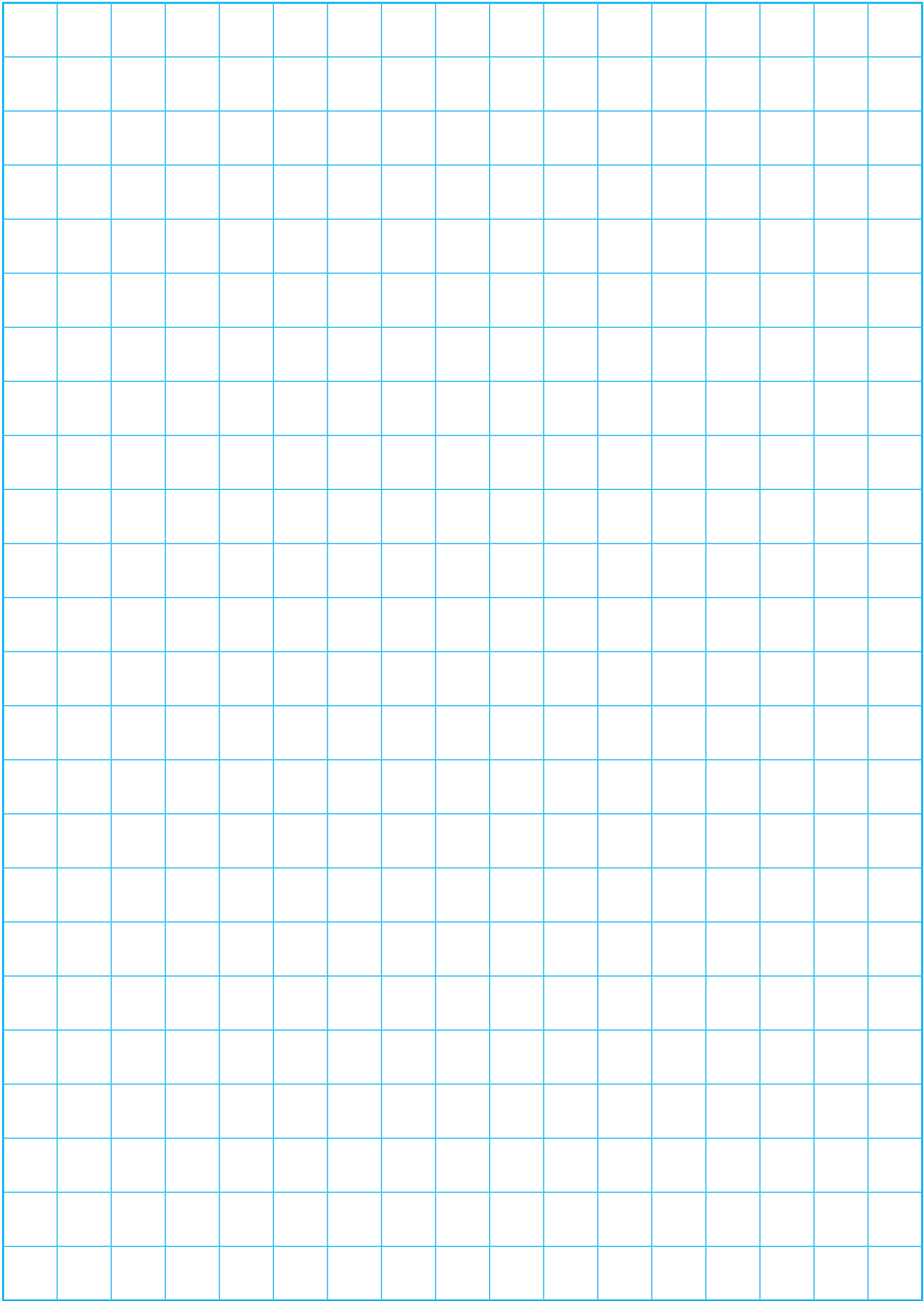
Students practice ordering decimals in this sample round of the *Decimals In Between* game.
MWI Comparing and Ordering Decimals



HOMEWORK

NAME

DATE





NAME _____

DATE _____

(PAGE 1 OF 2)

Adding Decimals

For each problem below, deal out five Decimal Cards and write them on the lines. Determine which three of the decimals have the greatest value, and add them. Show your work clearly.

1

Decimals: _____

Addition problem: _____ + _____ + _____ = _____

2

Decimals: _____

Addition problem: _____ + _____ + _____ = _____

3

Decimals: _____

Addition problem: _____ + _____ + _____ = _____



NAME _____

DATE _____

(PAGE 2 OF 2)

Adding Decimals

For each problem below, deal out five Decimal Cards and write them on the lines. Determine which three of the decimals have the greatest value, and add them. Show your work clearly.

4

Decimals: _____

Addition problem: _____ + _____ + _____ = _____

5

Decimals: _____

Addition problem: _____ + _____ + _____ = _____

6

Decimals: _____

Addition problem: _____ + _____ + _____ = _____



NAME _____

DATE _____

Mystery Tower

This is the top part of Janet's Multiple Tower. Answer these questions about her tower.

572

546

520

494

468

1

What number did Janet count by? How do you know?

2

How many numbers are in Janet's tower so far? How do you know?

3

Write a multiplication equation that represents how many numbers are in Janet's Multiple Tower:

_____ $\times$ _____ = _____

4

What is the 10th multiple in Janet's tower?

5

Imagine that Janet adds more multiples to her tower.

a. What would be the 30th multiple in her tower?

How do you know?

b. What would be the 32nd multiple in her tower?

How do you know?

NOTE

Students practice solving multiplication and division problems.

MWI Multiples; Multiple Towers



NAME _____

DATE _____

(PAGE 1 OF 2)

Subtraction Problems with Decimals

Average Monthly Precipitation in Inches (1981–2010)

City	Jan.	Feb.	Mar.
San Diego, California	2.48	2.16	2.45
Macon, Georgia	4.24	4.36	4.55
Evansville, Indiana	3.1	3.17	4.24
Sioux City, Iowa	0.62	0.67	2

Solve the following problems using the precipitation information above. Show how you solved each problem.

1

In March, how much more precipitation on average was there in Evansville than in San Diego?

2

In January, how much more precipitation on average was there in Evansville than in Sioux City?

3

In February, how much more precipitation on average was there in Evansville than in San Diego?



NAME _____

DATE _____

(PAGE 2 OF 2)

Subtraction Problems with Decimals

Average Monthly Precipitation in Inches (1981–2010)

City	Jan.	Feb.	Mar.
San Diego, California	2.48	2.16	2.45
Macon, Georgia	4.24	4.36	4.55
Evansville, Indiana	3.1	3.17	4.24
Sioux City, Iowa	0.62	0.67	2

Solve the following problems using the precipitation information above. Show how you solved each problem.

4

In March, how much more precipitation on average was there in Macon than in San Diego?

5

How much more precipitation on average was there in Macon in February than in January?

6

How much more precipitation on average was there in Sioux City in March than in January?



NAME _____

DATE _____

Decimal Subtraction Problems

Solve the following problems. Show your work.

1

Renaldo has \$5.00. He spent \$3.89 on a toy. How much money does he have left?

2

Zachary bought 1.49 pounds of cheese. He used 0.5 pound of the cheese in the dinner he made. How much cheese does he have left?

3

Georgia is running in a 3.5-kilometer race. She runs 2.25 kilometers and then stops to tie her shoe. How much farther does she need to run to complete the race?

4

$$0.46 - 0.23 = \underline{\hspace{2cm}}$$

5

$$8.26 - 6.1 = \underline{\hspace{2cm}}$$

NOTE

Students subtract decimals to hundredths.

MWI Subtracting Decimals



NAME _____

DATE _____

Fill Two Problems

Nora and Charles are playing *Fill Two*. Answer these questions about their game. Show your work.

1

On her first grid, Nora played 0.35, 0.425, and 0.075. How much of her first grid did Nora fill in?

2

On her second grid, Nora played 0.6 and 0.25. How much of her second grid did Nora fill in?

3

On his first grid, Charles played 0.175, 0.5, and 0.125. How much of his first grid did Charles fill in?

4

On his second grid, Charles played 0.25, 0.65, and 0.05. How much of his second grid did Charles fill in?

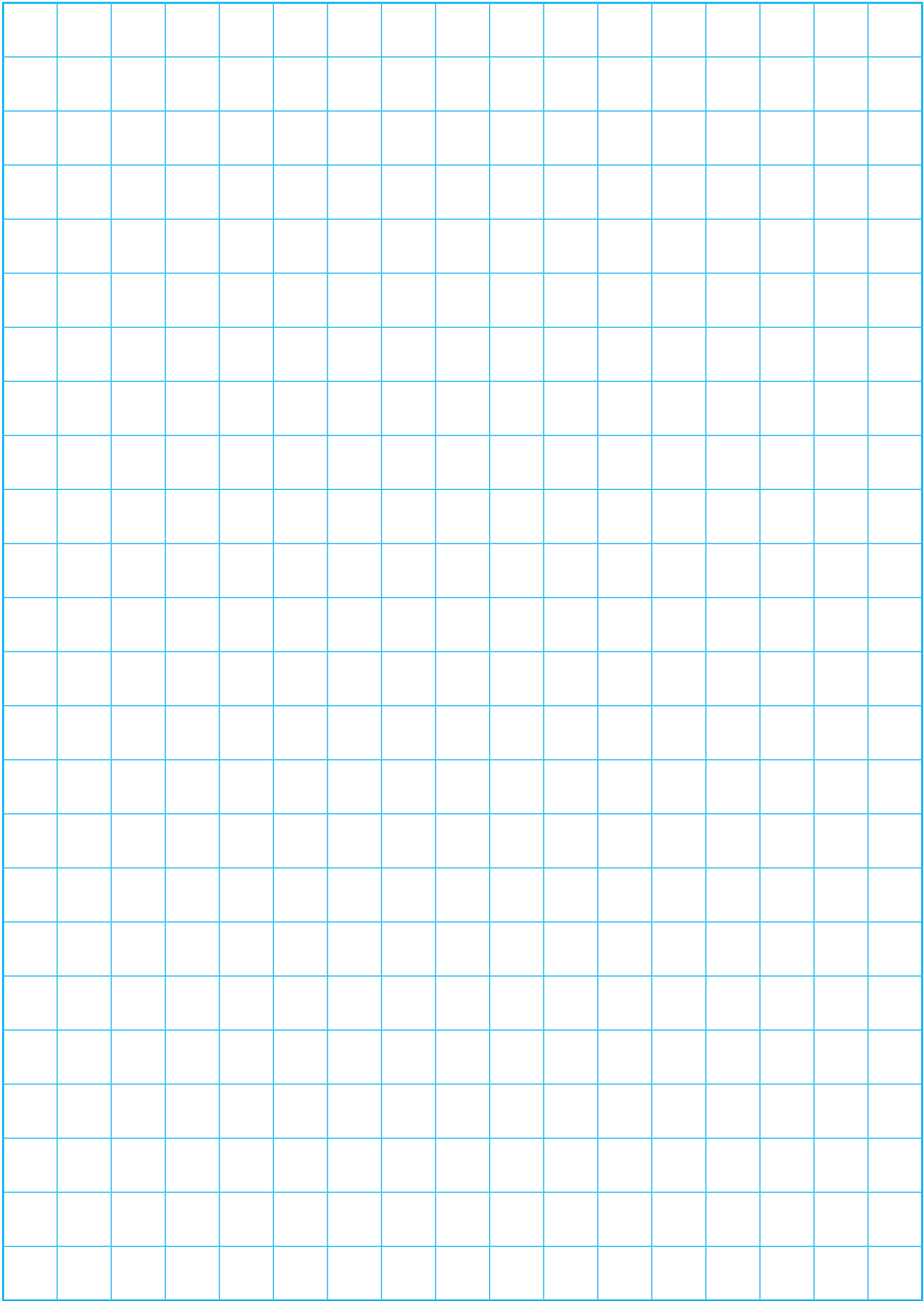
5

Who won the game? (Remember that the winner is the one with the sum of both grids closest to 2.)

NOTE

Students practice adding decimals with problems based on a *Fill Two* game.

MWI Adding Decimals





NAME _____

DATE _____

(PAGE 1 OF 2)

Decimal Problems

Make an estimate for each problem before you solve it.
Solve the problems and show your work clearly.

1

Shandra is preparing to run in a race. On Tuesday she ran 1.5 miles, on Thursday she ran 2.9 miles, and on Saturday she ran 2 miles. How many miles did she run in all?

2

Mercedes finds two small pieces of gold in her jewelry tray. One piece weighs 0.48 gram, and the other weighs 0.55 gram. How much gold did Mercedes find?

3

$$1.29 + 3.654 = \underline{\hspace{2cm}}$$

4

Joshua is preparing for a race. Today he plans to run 3.5 miles. So far he has run 1.66 miles. How much farther does he need to run?

5

$$0.98 + 0.05 + 1.06 = \underline{\hspace{2cm}}$$



NAME _____

DATE _____

(PAGE 2 OF 2)

Decimal Problems

Solve each problem about the precipitation for the 3 months in the tables. Show how you solved each problem. All amounts are recorded in inches.*

6

What is the total amount of precipitation for the 3 months in Seattle?

Seattle, Washington

Feb.	Mar.	Apr.
4.57	4.19	1.7

7

How much more precipitation was there in June than in May in Boston?

Boston, Massachusetts

May	June	July
1.22	5.02	2.05

8

What is the total amount of precipitation for the 3 months in Baton Rouge?

Baton Rouge, Louisiana

Oct.	Nov.	Dec.
15.13	6.53	6.33

9

How much more precipitation was there in Chicago in January than in February?

Chicago, Illinois

Jan.	Feb.	Mar.
1.23	0.24	0.48

10

How much more precipitation was there in Phoenix in August than in October?

Phoenix, Arizona

Aug.	Sept.	Oct.
1.29	0.81	0.71

*Data are for the year 2015.



NAME _____

DATE _____

Gymnastics: Women's All-Around Scores

Here are the scores of six female gymnasts from the 2012 Olympics in London, England.

Name	Floor Exercise	Uneven Bars	Total Score
Victoria Komova	13.900	15.833	
Elizabeth Tweddle	14.433	16.133	
Jinnan Yao	13.066	15.766	
Aliya Mustafina	14.433	15.700	
Alexandra Raisman	15.325	14.166	
Gabrielle Douglas	13.766	15.333	

1

Find each gymnast's total score for Floor Exercise plus Uneven Bars and record it on the chart. Show your work on another piece of paper.

2

Rank the gymnasts from the highest to the lowest score in Uneven Bars.

Ongoing Review

3

$$345 \times 67 =$$

Ⓐ 2,075

Ⓑ 4,485

Ⓒ 23,115

Ⓓ 24,115

NOTE

Students practice adding decimals to thousandths and ordering decimals.

MWI Adding Decimals



NAME _____

DATE _____

What's the Difference?

Solve each problem. Show your work.

1

Joshua rode his bike 6.84 miles. Shandra rode her bike 9.26 miles. How much farther did Shandra ride her bike than Joshua?

2

Janet has 7.25 cups of flour. She uses 3.5 cups to make a loaf of bread. How much flour does she have left?

3

$$8.23 - 3.61 = \underline{\hspace{2cm}}$$

4

$$8.42 - 3.6 = \underline{\hspace{2cm}}$$

5

$$6.2 - 4.33 = \underline{\hspace{2cm}}$$

NOTE

Students solve subtraction problems that include decimals.

MWI Subtracting Decimals



NAME _____

DATE _____

(PAGE 1 OF 3)

More Decimal Problems

Make an estimate for each problem. Then solve the problems, showing your work clearly.

1

Nora takes three nuggets of gold to be weighed. One weighs 1.18 grams, another weighs 0.765 gram, and the third weighs 1.295 grams. What is the total weight of the gold?

2

On Monday Mercedes runs 2.25 miles and on Wednesday she runs 1.78 miles. How much farther does she run on Monday than on Wednesday?

3

On Tuesday Tavon runs 2.4 miles, on Thursday he runs 1.98 miles, and on Friday he runs 1.5 miles. How many total miles does he run?

4

Nora finds two more pieces of gold in her jewelry tray. One weighs 0.875 gram and the other one weighs 1.43 grams. How much more does the 1.43-gram piece weigh?



NAME _____

DATE _____

(PAGE 2 OF 3)

More Decimal Problems

Solve the following problems.

5

In the finals of the men's 100-meter butterfly at the 2015 Winter National Championships, the swimmers had these times for each 50 meters of the race. Find the time it took them to swim the 100 meters. Show your work on another piece of paper.

Name	1st 50 Meters (seconds)	2nd 50 Meters (seconds)	Total (seconds)
Tom Shields	24.09	27.32	
Santo Condorelli	24.41	28.00	
Luis Martinez	24.70	27.65	
Michael Phelps	24.45	26.93	

6

Place the swimmers in the order of their finish.

Place	Name	Time (seconds)
1st		
2nd		
3rd		
4th		

7

How much faster was the 1st place swimmer than the 4th place swimmer? Show your work.



NAME

DATE

(PAGE 3 OF 3)

More Decimal Problems

Solve the following problems.

- 8** In the finals of the women's 100-meter butterfly at the 2015 Winter National Championships, the swimmers had these times for each 50 meters of the race. Find the time it took them to swim the 100 meters. Show your work on another piece of paper.

Name	1st 50 Meters (seconds)	2nd 50 Meters (seconds)	Total (seconds)
Dana Vollmer	27.67	30.28	
Noemie Thomas	27.31	31.33	
Kendyl Stewart	27.87	30.58	
Claire Donahue	26.68	31.69	

- 9** Place the swimmers in the order of their finish.

Place	Name	Time (seconds)
1st		
2nd		
3rd		
4th		

- 10** How much faster was the 1st place swimmer than the 4th place swimmer? Show your work.



NAME _____

DATE _____

Gymnastics: Men's All-Around Scores

Here are some of the scores of six male gymnasts from the 2012 Olympics in London, England.

Name	Floor Exercise	Parallel Bars	Total Score
Marcel Nguyen	15.433	15.525	
David Belyavskiy	15.100	15.300	
Kazuhito Tanaka	13.666	15.725	
Danell Leyva	15.100	15.333	
Mykola Kuksenkov	14.533	15.066	
Kohei Uchimura	15.766	15.533	

1

Find each gymnast's total score for Floor Exercise plus Parallel Bars and record it on the chart. Show your work on another piece of paper.

2

Rank the gymnasts from the highest to the lowest score in Parallel Bars.

Ongoing Review

3

Which number is between 9.1 and 9.35?

Ⓐ 9.020

Ⓑ 9.03

Ⓒ 9.200

Ⓓ 9.4

NOTE

Students practice adding decimals to thousandths and ordering decimals.

MWI Adding Decimals



NAME _____

DATE _____

Adding and Subtracting Decimals

Solve each problem and show how you solved it.

1

Joshua went grocery shopping. He bought 3.24 pounds of onions, 2.1 pounds of peppers, and 5.2 pounds of potatoes. How many pounds of vegetables did he buy?

2

Mercedes ran 6.35 miles on Saturday. She ran 5.17 miles on Sunday. How much more did she run on Saturday than on Sunday?

3

Nora's family is going on a trip. They drive 23.6 miles and then stop for lunch. After lunch, they drive another 42.8 miles. How many miles did they drive in all?

4

$$8.46 - 5.52 = \underline{\hspace{2cm}}$$

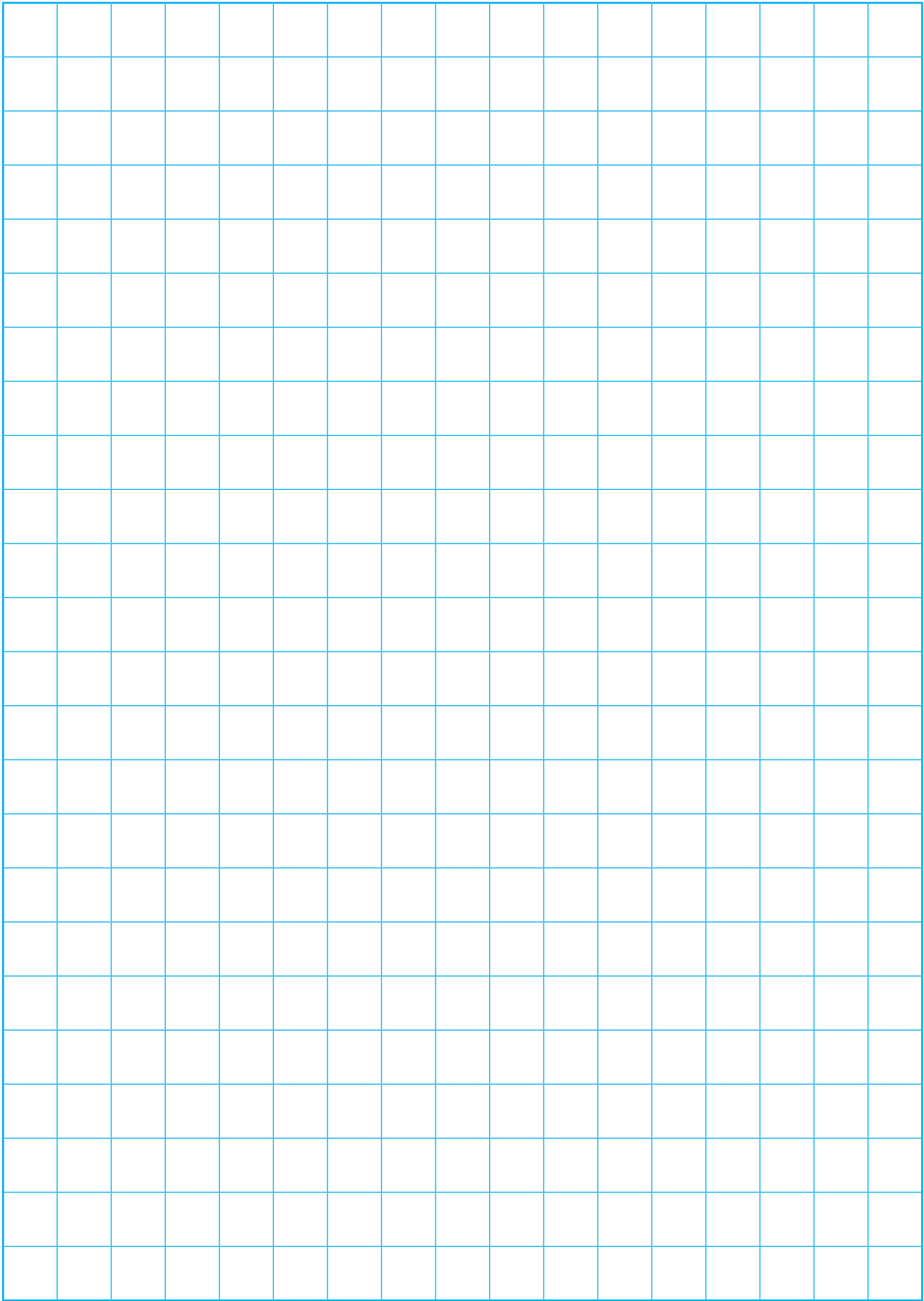
5

$$10.3 + 6.28 = \underline{\hspace{2cm}}$$

NOTE

Students solve addition and subtraction problems that involve decimals.

MWI Adding Decimals; Subtracting Decimals





NAME _____

DATE _____

Close to 1

Find the sums for each pair of problems. Show your work. Then circle the sum in each pair that is closer to 1.

1

$0.500 + 0.583 = \underline{\hspace{2cm}}$

$0.166 + 0.666 = \underline{\hspace{2cm}}$

2

$0.166 + 0.5 + 0.333 = \underline{\hspace{2cm}}$

$0.725 + 0.333 = \underline{\hspace{2cm}}$

3

$0.195 + 0.07 + 0.002 = \underline{\hspace{2cm}}$

$0.835 + 0.1 = \underline{\hspace{2cm}}$

4

$0.7 + 0.301 = \underline{\hspace{2cm}}$

$0.48 + 0.06 = \underline{\hspace{2cm}}$

5

$0.311 + 0.666 = \underline{\hspace{2cm}}$

$0.200 + 0.7 = \underline{\hspace{2cm}}$

NOTE

Students practice adding tenths, hundredths, and thousandths.

MWI Adding Decimals



NAME _____

DATE _____

Adding and Subtracting Precipitation Amounts

The table below shows the monthly precipitation for 6 months of 2015 in Juneau, Alaska. Use the information in the table to solve each problem below, showing your work clearly. All amounts are recorded in inches.

Jan.	Feb.	Mar.	Apr.	May	June
11.98	3.42	4.03	6.54	0.52	3.94

1

How much total precipitation did Juneau receive in January and February?

2

How much more precipitation was there in January compared to February?

3

How much total precipitation did Juneau receive in March and April?

4

How much more precipitation was there in April compared to May?

5

How much total precipitation did Juneau receive from January to June?

NOTE

Students practice adding and subtracting decimals using monthly precipitation amounts.

MWI Adding Decimals; Subtracting Decimals



NAME _____

DATE _____

Decimals in Expanded Form

Write each number in expanded form.

1

85.36 _____

2

194.218 _____

3

53.24 _____

Write each number in standard form.

4 $8 \times 1 + 9 \times \frac{1}{100} + 4 \times \frac{1}{1000}$ _____**5** $8 \times 100 + 6 \times 10 + 2 \times 1 + 4 \times \frac{1}{10} + 9 \times \frac{1}{100} + 6 \times \frac{1}{1000}$
_____**6** $3 \times 1,000 + 4 \times 100 + 3 \times 10 + 1 \times 1 + 3 \times \frac{1}{10} + 2 \times \frac{1}{100}$
_____**7** $6 \times 10 + 7 \times 1 + 9 \times \frac{1}{10} + 5 \times \frac{1}{100}$ _____

NOTE

Students write numbers with decimals in expanded form.

MWI Place Value: Decimals to Thousandths



NAME _____

DATE _____

Understanding Place Value

Write each number in expanded form.

1

96.14 _____

2

126.755 _____

3

34.432 _____

Write each number in standard form.

4 $4 \times 10 + 3 \times 1 + 8 \times \frac{1}{10} + 5 \times \frac{1}{100}$ _____**5** $5 \times 100 + 3 \times 10 + 7 \times 1 + 7 \times \frac{1}{100} + 6 \times \frac{1}{1000}$ _____**6** $5 \times 1,000 + 8 \times 100 + 6 \times 10 + 4 \times 1 + 9 \times \frac{1}{10} + 3 \times \frac{1}{100}$ _____**7** $3 \times 1 + 5 \times \frac{1}{10} + 9 \times \frac{1}{100} + 5 \times \frac{1}{1000}$ _____

NOTE

Students write numbers with decimals in expanded form.

MWI Place Value: Decimals to Thousandths



NAME _____

DATE _____

Solving Decimal Problems

Solve each problem and show how you solved it.

1

Nora buys 4.8 pounds of potatoes. She uses 3.2 pounds when she makes dinner. How many pounds of potatoes does she have left?

2

Joshua is going to visit his cousins. They live 36.8 miles away from Joshua. So far, Joshua has traveled 17.9 miles. How much farther does Joshua have to drive before he gets to his cousins' house?

3

Shandra rides her bike every day. On Monday she rode her bike 8.43 miles. On Tuesday she rode her bike 5.37 miles. How much farther did Shandra ride on Monday than on Tuesday?

4

$$34.65 - 27.3 = \underline{\hspace{2cm}}$$

5

$$62.834 - 31.931 = \underline{\hspace{2cm}}$$

6

$$58.39 - 41.93 = \underline{\hspace{2cm}}$$

NOTE

Students solve subtraction problems that involve decimals.

MWI Subtracting Decimals

