



i-Ready® Classroom Mathematics

Build Fluency on a Foundation of Understanding

High-Quality Practice Opportunities

Research¹ says students need to build conceptual understanding before they are ready for procedural practice. *i-Ready Classroom Mathematics* provides tasks and practice problems that solidify students' conceptual understanding before providing computational practice used to develop fluency.

The following Student Worktext and Teacher's Guide pages contain samples of practice items from *i-Ready Classroom Mathematics*:

Comprehensive overview of practice opportunities, including **digital practice** options that provide immediate and meaningful feedback while reinforcing understanding 2

Additional Practice highlights students' work on vocabulary and conceptual understanding prior to computational practice..... 3

Fluency and Skills Practice uses patterns and repeated reasoning to develop fluency and build skills..... 7

Refine Session(s) provide dedicated class time for practice that combines conceptual understanding, fluency, and application items 9

Cumulative Practice lets students revisit previously learned content to deepen their understanding and retention 17

For information on how *i-Ready Classroom Mathematics* embeds math practice to enhance the learning progression, see the [What Does Good Math Practice Look Like?](#) guide.

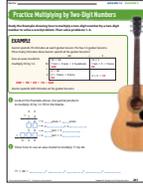
¹[NCTM.org/Standards-and-Positions/Position-Statements/Procedural-Fluency-in-Mathematics](https://www.nctm.org/Standards-and-Positions/Position-Statements/Procedural-Fluency-in-Mathematics)

i-Ready Classroom Mathematics Practice Opportunities

Lesson-Level Practice



Connect It and Apply It Problems
(Student Worktext)



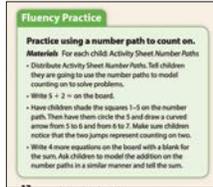
Additional Practice
(Student Worktext)



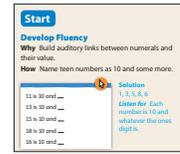
Refine Sessions
(Student Worktext)



Building Fluency:
Grade K
(Teacher's Guide)



Fluency Practice:
Grades K–1
(Teacher's Guide)



Develop Fluency Activities
(Teacher's Guide)



Fluency and Skills Practice
(Teacher Toolbox)

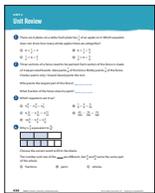


Leveled Math Center Activities
(Teacher Toolbox)



Assignable Interactive Practice
(Digital)

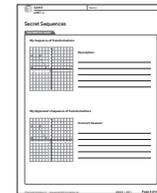
Unit-Level Practice



Unit Review
(Student Worktext)



Cumulative Practice
(Student Worktext)

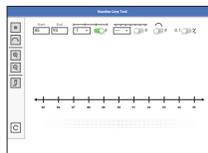


Unit Games
(Teacher Toolbox)

Ongoing Practice



Grade Level Games:
Grades K–2
(Teacher Toolbox)



Digital Math Tools
(Digital)



Learning Games
(Digital)

Name: _____

Practice Fractions as Division

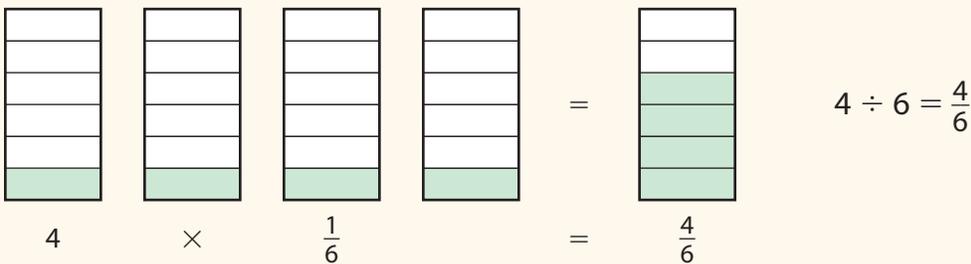
Study the Example showing whole-number division with a fraction quotient.
Then solve problems 1–5.

EXAMPLE

There are 4 packages of printer paper to be divided equally among 6 classrooms.
How much paper will each classroom get?

There are 4 packages for 6 classrooms to share, which is $4 \div 6$.

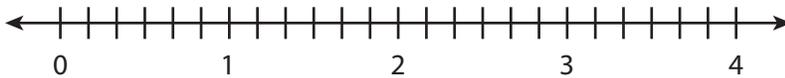
If you divide each package into sixths, each classroom would get one sixth of each package. So, $\frac{1}{6}$ of each package from 4 packages is the same as $\frac{4}{6}$ of a package.



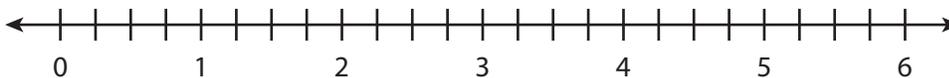
Each classroom gets $\frac{4}{6}$ of a package.

- 1 Circle the number line you would use to solve the problem in the Example.

Number Line A



Number Line B



- 2 Look at the Example. Suppose only 5 classrooms share 4 packages. How would the model in the Example change? How would the answer change?

- 3 Trish is taking care of the Han family's dogs. The Hans leave 7 cans of dog food for the 3 days they will be away. How much food will the dogs get each day if Trish feeds them an equal amount each day? Show your work. Write the answer in remainder form and as a mixed number.

**Solution**

Which best answers the question, the remainder form or the mixed number? Explain.

- 4 Raul plans to run 30 miles this week. He wants to run the same number of miles each day of the week. He says he will run $\frac{7}{30}$ mile each day. Is he correct? Explain.

- 5 Gus makes 48 fluid ounces of spiced cider. If he serves an equal amount to each of 7 people, will each person get more than 1 cup of cider or less than 1 cup? (1 cup = 8 fluid ounces) Show your work.

Solution

Name: _____

Practice Fractions as Division

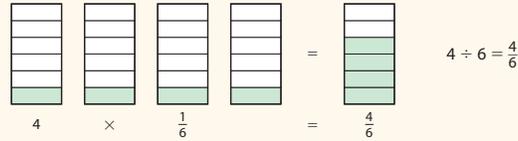
Study the Example showing whole-number division with a fraction quotient. Then solve problems 1–5.

EXAMPLE

There are 4 packages of printer paper to be divided equally among 6 classrooms. How much paper will each classroom get?

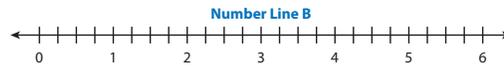
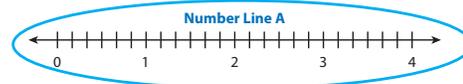
There are 4 packages for 6 classrooms to share, which is $4 \div 6$.

If you divide each package into sixths, each classroom would get one sixth of each package. So, $\frac{1}{6}$ of each package from 4 packages is the same as $\frac{4}{6}$ of a package.



Each classroom gets $\frac{4}{6}$ of a package.

- 1 Circle the number line you would use to solve the problem in the Example.



- 2 Look at the Example. Suppose only 5 classrooms share 4 packages. How would the model in the Example change? How would the answer change?

Each rectangle would be divided into 5 equal sections instead of 6; the answer would change to $\frac{4}{5}$ of a package.

Fluency & Skills Practice

Teacher Toolbox

Assign Fractions as Division

In this activity students solve real-world division problems in which the quotient is a fraction or mixed number. Students may encounter similar situations in everyday life. For example, students may need to divide 5 cubic meters of peat moss evenly among 4 garden plots. Or, they may need to determine how many 2-cup servings of milk are in 25 cups of milk.

Fluency and Skills Practice

Fractions as Division

Name: _____

Solve each problem.

- Roger has 4 gallons of orange juice. He puts the same amount of juice into each of 5 pitchers. How many gallons of orange juice are in 1 pitcher?
- Marta has 8 cubic feet of potting soil and 3 flower pots. She wants to put the same amount of soil in each pot. How many cubic feet of soil will she put in each flower pot?
- Greg made 27 ounces of potato salad to serve to 10 guests at a picnic. If each serving is the same size, how much potato salad will each guest receive?
- Chandra spends 15 minutes doing 4 math problems. She spends the same amount of time on each problem. How many minutes does she spend on each problem?
- Taylor has 5 yards of gold ribbon to decorate 8 costumes for the school play. She plans to use the same amount of ribbon for each costume. How many yards of ribbon will she use for each costume?
- DeShawn is using 7 yards of wire fencing to make a play area for his puppy. He wants to cut the fencing into 4 pieces of equal length. How long will each piece of fencing be?

What is a division word problem that can be represented by $\frac{4}{5}$?

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LESSON 18 SESSION 2

- 3 $\frac{7}{3}$, or $2\frac{1}{3}$ cans; Students may use fraction models or number lines divided into thirds, or the expression $7 \div 3$, to show how much food the dogs will get each day. Students should explain that the mixed number better expresses the amount of food per day because it gives an exact amount. The remainder just indicates that more than 2 cans will be used.

Medium

- 4 No; See possible explanation on the student page.

Challenge

- 5 Less than 1 cup; Students may use fraction models divided into sevenths, the expression $48 \div 7$, or some other method to find each person will get $\frac{48}{7}$, or $6\frac{6}{7}$ ounces. That amount is less than 8 ounces.

Medium

- 3 Trish is taking care of the Han family's dogs. The Hans leave 7 cans of dog food for the 3 days they will be away. How much food will the dogs get each day if Trish feeds them an equal amount each day? Show your work. Write the answer in remainder form and as a mixed number.

Students might use number lines, equations, or some other method to show the quotient of $7 \div 3$.



Solution 2 R 1 cans; $\frac{7}{3}$, or $2\frac{1}{3}$ cans

Which best answers the question, the remainder form or the mixed number? Explain.

Possible answer: The mixed number, because it tells exactly how many cans to use each day. The remainder form shows to use more than 2, but not an exact amount.

- 4 Raul plans to run 30 miles this week. He wants to run the same number of miles each day of the week. He says he will run $\frac{7}{30}$ mile each day. Is he correct? Explain.

No; Possible explanation: Raul divided the number of days by the number of miles, $7 \div 30$. He needed to divide the number of miles by the number of days, $30 \div 7$. Raul will run $\frac{30}{7}$, or $4\frac{2}{7}$, miles a day.

- 5 Gus makes 48 fluid ounces of spiced cider. If he serves an equal amount to each of 7 people, will each person get more than 1 cup of cider or less than 1 cup? (1 cup = 8 fluid ounces) Show your work.

Students might use fraction models, equations, or some other method to show that $48 \div 7 = \frac{48}{7}$ or $6\frac{6}{7}$. $6\frac{6}{7}$ ounces < 8 ounces

Solution less than 1 cup

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English Language Learners: Differentiated Instruction

Prepare for Session 3
Use with *Apply It*.

Levels 1–3

Listening/Speaking Read *Apply It* problem 1 to students. Ask them to point to the words *equal amount*. Ask students to discuss with a partner what operation they will need to solve the problem and why. Provide the following sentence frame: *When you break up a bigger number into equal smaller amounts, you need to divide.*

Levels 2–4

Reading/Writing Read *Apply It* problem 1. Have students read the problem with a partner and work together to decide on a strategy to use to solve for the amount of space Erica will give each vegetable. Have students work together to solve the problem using the strategy they chose.

Levels 3–5

Reading/Writing Have students read *Apply It* problem 1 with a partner and work together to decide on a strategy to use to solve for the amount of space Erica will give each vegetable. Ask partners to solve the problem. Have students work with a different group and discuss the different approaches each group selected to solve the problem. Provide a sentence starter and encourage students to justify their thinking: *We know our answer is correct because _____.*

Fractions as Division

Name: _____

Solve each problem.

- 1 Roger has 4 gallons of orange juice. He puts the same amount of juice into each of 5 pitchers. How many gallons of orange juice are in 1 pitcher?
- 2 Marta has 8 cubic feet of potting soil and 3 flower pots. She wants to put the same amount of soil in each pot. How many cubic feet of soil will she put in each flower pot?
- 3 Greg made 27 ounces of potato salad to serve to 10 guests at a picnic. If each serving is the same size, how much potato salad will each guest receive?
- 4 Chandra spends 15 minutes doing 4 math problems. She spends the same amount of time on each problem. How many minutes does she spend on each problem?
- 5 Taylor has 5 yards of gold ribbon to decorate 8 costumes for the school play. She plans to use the same amount of ribbon for each costume. How many yards of ribbon will she use for each costume?
- 6 DeShawn is using 7 yards of wire fencing to make a play area for his puppy. He wants to cut the fencing into 6 pieces of equal length. How long will each piece of fencing be?
- 7 What is a division word problem that can be represented by $\frac{4}{3}$?

Fractions as Division

Name: _____

Solve each problem.

- 1** Roger has 4 gallons of orange juice. He puts the same amount of juice into each of 5 pitchers. How many gallons of orange juice are in 1 pitcher?
 $\frac{4}{5}$ gallon
- 2** Marta has 8 cubic feet of potting soil and 3 flower pots. She wants to put the same amount of soil in each pot. How many cubic feet of soil will she put in each flower pot?
 $\frac{8}{3}$ or $2\frac{2}{3}$ cubic feet
- 3** Greg made 27 ounces of potato salad to serve to 10 guests at a picnic. If each serving is the same size, how much potato salad will each guest receive?
 $\frac{27}{10}$ or $2\frac{7}{10}$ ounces
- 4** Chandra spends 15 minutes doing 4 math problems. She spends the same amount of time on each problem. How many minutes does she spend on each problem?
 $\frac{15}{4}$ or $3\frac{3}{4}$ minutes
- 5** Taylor has 5 yards of gold ribbon to decorate 8 costumes for the school play. She plans to use the same amount of ribbon for each costume. How many yards of ribbon will she use for each costume?
 $\frac{5}{8}$ yard
- 6** DeShawn is using 7 yards of wire fencing to make a play area for his puppy. He wants to cut the fencing into 6 pieces of equal length. How long will each piece of fencing be?
 $\frac{7}{6}$ or $1\frac{1}{6}$ yards
- 7** What is a division word problem that can be represented by $\frac{4}{3}$?
Answers will vary. Possible answer: Three friends share 4 ounces of sunflower seeds equally. How many ounces of sunflower seeds does each friend get?

Refine Fractions as Division

Complete the Example below. Then solve problems 1–9.

EXAMPLE

Luke, Carter, and Ava have 2 quarts of juice. They want to share it equally. How many quarts of juice will each of them get?

Look at how you could show your work using a model and equations.



$$2 \div 3 = 2 \times \frac{1}{3}$$

$$= \frac{2}{3}$$

Solution

2 quarts are shared equally by 3 friends, so I know that each friend will have less than 1 quart of juice. That means the quotient is a fraction.



PAIR/SHARE

Model the problem for 3 quarts of juice divided equally among Luke, Carter, Ava, and Ava's little brother.

APPLY IT

- Erica has 7 square feet of space in her rectangular garden to plant carrots, beans, peppers, and lettuce. Suppose she gives each vegetable an equal amount of space. How much space will each vegetable get? Show your work.

Solution

Each vegetable will get at least 1 square foot of garden space. How will the rest of the space be divided up?

PAIR/SHARE

What are some ways you can check your solution?

- 2 Deon needs to make 36 pizza crusts. He has 120 ounces of dough and wants to use the same amount of dough for each crust. He weighs a portion of dough for 1 crust on a scale. The weight, in ounces, should fall between what two whole numbers? Show your work.

How many whole ounces of dough will each crust get? What will happen with the remaining ounces?



Solution

- 3 Jonas is doing a science experiment with his class. The teacher has 21 fluid ounces of pond water to share equally among 10 pairs of students. How much pond water will Jonas and his science partner receive?
- A $\frac{10}{21}$ fluid ounce
 - B $1\frac{1}{10}$ fluid ounces
 - C 2 fluid ounces
 - D $\frac{21}{10}$ fluid ounces

Olivia chose A as the correct answer. How did she get that answer?

PAIR/SHARE

Create a different division story to represent $\frac{120}{36}$.

About how much water will each pair of students receive? Will it be more or less than 2 fluid ounces?



PAIR/SHARE

Does Olivia's answer make sense?

- 4 Teddy makes 32 fluid ounces of hot cocoa. He pours equal amounts of cocoa into 5 cups. The amount of hot cocoa in each cup will fall between which two amounts?
- (A) 3 and 4 fluid ounces
 (B) 4 and 5 fluid ounces
 (C) 5 and 6 fluid ounces
 (D) 6 and 7 fluid ounces
- 5 Pierce swims 10 laps in a pool in 8 minutes. He spends the same amount of time on each lap. How much time does each lap take him?
- (A) $\frac{2}{10}$ minute
 (B) $\frac{8}{10}$ minute
 (C) $\frac{10}{8}$ minutes
 (D) $1\frac{2}{8}$ minutes
- 6 Dani needs 8 equal sections from a board that is 13 feet long. Does the expression represent the largest possible length of 1 section of the board, in feet?



	Yes	No
$1\frac{5}{8}$	(A)	(B)
$\frac{8}{13}$	(C)	(D)
$\frac{13}{8}$	(E)	(F)
$8 \div 13$	(G)	(H)
$13 \times \frac{1}{8}$	(I)	(J)

- 7 Which situations can be represented by $\frac{25}{9}$?
- Ⓐ Melanie equally shares 25 yards of paper to make 9 banners.
 - Ⓑ Quill gives away 9 baseball cards from a pack of 25 cards.
 - Ⓒ George invites 25 kids and 9 adults to his birthday party.
 - Ⓓ Becca makes 9 rows with 25 buttons each.
 - Ⓔ Joe makes 9 equal servings from a 25-ounce bag of peanuts.
- 8 Paco is trying to explain to his friend that $7 \div 2 = \frac{7}{2}$.

Part A Draw a model or number line showing $7 \div 2 = \frac{7}{2}$.

Part B Explain the equivalence of $7 \div 2$ and $\frac{7}{2}$ using words.

9 MATH JOURNAL

Write a division word problem that can be represented by the expression $12 \div 5$. Then explain how to solve your problem.



SELF CHECK Go back to the Unit 3 Opener and see what you can check off.

Purpose In this session students solve word problems involving dividing with decimals and then discuss and confirm their answers with a partner.

Before students begin to work, use their responses to the *Check for Understanding* to determine those who will benefit from additional support.

As students complete the Example and problems 1–3, observe and monitor their reasoning to identify groupings for differentiated instruction.

Start

Check for Understanding

Materials For remediation: Activity Sheet *Base-Ten Grid Paper*

Why Confirm understanding of dividing decimals.

How Have students find the quotient $8.4 \div 0.3$ using any strategy they want.

Use any strategy to find the quotient.

$8.4 \div 0.3 = ?$

Solution
28

Complete the Example below. Then solve problems 1–8.

EXAMPLE

Nancy ran a total of 35 miles to train for a race. She ran 2.5 miles each day. How many days did Nancy run to train for the race?

Look at how you could show your work using equations.

Let d = number of days.

$2.5 \times d = 35$

$2.5 = 25 \text{ tenths}, 35 = 350 \text{ tenths}$

$25 \times d = 350$

$350 \div 25 = 14$

Solution Nancy ran 14 days to train for the race.

The student wrote a related multiplication equation to solve the problem.



PAIR/SHARE

Can you solve the problem in another way?

APPLY IT

- 1 What number multiplied by 8 will give a product of 9.6? Write an equation and solve. Show your work.

Possible student work using equations:

$n \times 8 = 9.6$

$9.6 \div 8 = n$

$96 \text{ tenths} \div 8 = n$

$12 \text{ tenths} = n$

$1.2 = n$

Solution 1.2

What is a good estimate for your answer?

PAIR/SHARE

How could you model this problem with a number line?

Error Alert

If the error is ...	Students may ...	To support understanding ...
2.8	have placed the decimal point to match the dividend or divisor.	Have students rewrite 8.4 as 84 tenths and 0.3 as 3 tenths. Then have students divide the whole numbers of tenths.
0.28	have divided the quotient by 100 (0.1×0.1).	Have students check their work by multiplying. Then have them rewrite 8.4 as 84 tenths and 0.3 as 3 tenths. Then have students divide the whole numbers of tenths.
280	have multiplied the dividend by 10 before dividing.	Have students use base-ten grid paper to show 8.4 and then mark off groups of 0.3. Then review the place-value division process.

EXAMPLE

Nancy ran 14 days to train for the race; The related multiplication equation with a missing factor shown is one way to solve the problem. Students could also solve the problem by creating a division house or use another method to find $35 \div 2.5$.

Look for To solve $35 \div 2.5 = n$ you can think about the missing factor equation $n \times 2.5 = 35$, which you can write in the form $n \times 25 \text{ tenths} = 350 \text{ tenths}$.

APPLY IT

- 1 1.2; See possible equations shown on the Student Worktext page.

DOK 2

Look for The dividend, 9.6, and the divisor, 8, are both close to 10, so the quotient should be close to $10 \div 10$, or 1.

- 2 24 screws; Students could solve the problem by writing 18 as 1,800 hundredths and 0.75 as 75 hundredths and then solve the whole-number division problem $1,800 \div 75$.

DOK 2

Look for The answer will be greater than 18. Each screw is less than a centimeter long ($0.75 < 1$), so more than 18 can be lined up end to end to make a row that is 18 centimeters long.

- 3 **D**; Write each number as number of tenths (65 tenths and 5 tenths); then divide.

$$65 \div 5 = 13.$$

Explain why the other two answer choices are not correct:

B is not correct because 6 is the difference of the 6.5 and 0.5, not the quotient.

C is not correct because 7 is the sum of 6.5 and 0.5, not the quotient.

DOK 3

- 2 The length of a screw is 0.75 centimeter. How many screws can be placed end to end to make a row that is 18 centimeters long? Show your work.

Possible student work:

$$18 \div 0.75$$

$$18 = 1,800 \text{ hundredths}; 0.75 = 75 \text{ hundredths}$$

$$1,800 \div 75$$

$$\begin{array}{r} 2 \\ 2 \\ 20 \\ 75 \overline{)1,800} \\ \underline{-1,500} \\ 300 \\ \underline{-150} \\ 150 \\ \underline{-150} \\ 0 \end{array} \quad 20 + 2 + 2 = 24$$

Solution 24 screws

- 3 What is $6.5 \div 0.5$?

(A) 3.25

(B) 6

(C) 7

(D) 13

Gwen chose (A) as the correct answer. How did she get that answer?

Possible answer: She multiplied 6.5 by 0.5 to get 3.25. She should have divided 6.5 by 0.5 to get 13.

Will the answer be greater than or less than 18?

**PAIR/SHARE**

Explain how you decided what operation to use to solve the problem.

I could draw a model to represent this problem.

PAIR/SHARE

Does Gwen's answer make sense?

- 4 **B**; Divide 3.80 by 0.95 to find the number of books.
DOK 2

- 5 3.3; First, add $3.4 + 2.5 + 4$. Then, divide the sum, 9.9, by the number of people getting peanuts, 3.
DOK 2

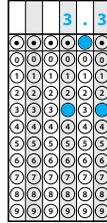
Error Alert Students who find an answer of 33 may have written $99 \text{ tenths} \div 3$, but then neglected to write the quotient 33 tenths as a decimal. Remind students to use estimation to confirm the placement of the decimal point or check their answers with multiplication.

- 6 **B (No);**
C (Yes);
F (No);
G (Yes)
DOK 2

- 4 Jordan has \$3.80 to spend at the used book store. Each book costs \$0.95. What is the greatest number of books Jordan can buy?

- A 3
B 4
C 5
D 6

- 5 Keith bought 3.4 pounds of peanuts on Monday, 2.5 pounds on Tuesday, and 4 pounds on Wednesday. He is going to divide the peanuts equally between himself and two friends. How many pounds of peanuts will each friend get?



- 6 If you put 0.7 in the box for each equation, is the equation true?

	Yes	No
$\square \times 5.2 = 36.4$	A	B
$49 \div \square = 70$	C	D
$\square \div 3.5 = 0.02$	E	F
$9.1 \times \square = 6.37$	G	H

Differentiated Instruction

RETEACH

Visual Model

Use number lines to estimate quotients with decimals.

Students struggling with division of decimals

Will benefit from using an estimate to check their answer

Materials For each pair: Activity Sheet *Number Lines*

- Tell students they can use a number line to model an estimate for the quotient $2.76 \div 6$.
- Ask: *What is 2.76 rounded to the nearest whole number?* [3] Have students make a number line from 0 to 3, divided into tenths. Ask: *How can you divide 3 wholes into 6 equal groups of tenths?* [$3 = 30$ tenths, so divide 30 tenths into 6 groups of 5 tenths each.]
- Have students write the division equation represented by their number line. [$3 \div 6 = 0.5$]
- Now write the original problem $2.76 \div 6$ as $276 \text{ hundredths} \div 6$. Ask: *What is $276 \div 6$?* [46] *What is $276 \text{ hundredths} \div 6$?* [46 hundredths, or 0.46]
- Ask: *How does your estimate help you know the decimal point is placed correctly in the quotient?* [The quotient 0.46 is close to the estimate of 0.5.] Repeat activity for $4.16 \div 8$. [0.52]

EXTEND

Challenge Activity

Divide with decimals to solve a problem.

Students who have achieved proficiency

Will benefit from deepening understanding of dividing with decimals

- Challenge students with a problem that asks them to find the perimeter of a rectangle with a given area.

A rectangle has an area of 15.3 square meters. The length of one side of the rectangle is 0.9 meter. What is the perimeter of the rectangle? [35.8 meters]

7 Part A

1.5 bags; See possible shading of the decimal grids, and possible explanation, on the Student Worktext page.

Part B

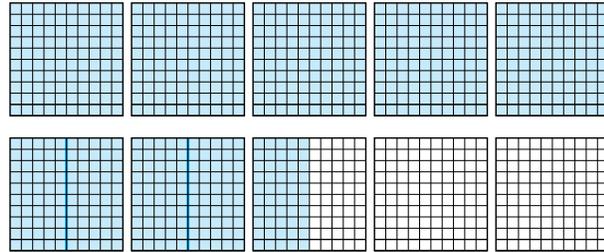
$5 \times 1.5 = 7.5$; See possible work on the Student Worktext page.

DOK 3

- 7 Jamie has 5 jars to fill with beads for a carnival game. She has 7.5 bags of multi-colored beads. Jamie wants to put an equal amount of beads in each jar. How many bags of beads can she put into each jar?

Possible student work:
Each grid represents
1 bag of beads.

Part A Use decimal grids to solve the problem. Explain your solution.



1.5 bags; Possible explanation: Jamie can put 1 whole bag of beads into each jar. Then she can share the remaining 25 tenths of a bag among the 5 jars and put 5 tenths of a bag into each jar.

Part B Use multiplication to check your answer.

Possible student work:
I need to show that
 $5 \times 1.5 = 7.5$.

$$\begin{array}{r} 1.5 \\ \times 5 \\ \hline 25 \text{ tenths} \\ + 50 \text{ tenths} \\ \hline 7.5 \end{array}$$

**8 MATH JOURNAL**

A sticker is 1.2 centimeters wide. How many stickers will fit edge to edge on a strip of paper that is 108 centimeters long? Explain your thinking.

Possible answer: I need to find how many groups of 1.2 are in 108, so I solve $108 \div 1.2 = n$. If I write 108 as 1,080 tenths and 1.2 as 12 tenths, then I can find how many groups of 12 are in 1,080. $1,080 \div 12 = 90$, so $1,080 \text{ tenths} \div 12 \text{ tenths} = 90$. The strip of paper can fit 90 stickers.



SELF CHECK Go back to the Unit 3 Opener and see what you can check off.

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REINFORCE**Problems 4–8****Divide decimals.**

All students will benefit from additional work with dividing decimals by solving problems in a variety of formats.

- Have students work on their own or with a partner to solve the problems.
- Encourage students to show their work.

PERSONALIZE

Provide students with opportunities to work on their personalized instruction path with *i-Ready* Online Instruction to:

- fill prerequisite gaps
- build up grade-level skills

Close: Exit Ticket**8 MATH JOURNAL**

90 stickers; Student responses should indicate understanding that they are asked to find how many groups of 1.2 are in 108, which can be answered by finding the quotient $108 \div 1.2$. Responses should include a description of how to find a quotient of 90.

Error Alert If students find an answer of 9 stickers, then have them use an estimate to explain why the answer should be closer to 100 than to 10.



SELF CHECK Have students consider whether they feel they are ready to check off any new skills on the Unit 3 Opener.

Cumulative Practice

Name: _____

Set 1: Decimal Place Value

Fill in the blanks.

1 $0.4 = \dots \times 10$

2 $0.06 = \dots \div 10$

3 10 times 0.25 is \dots .

4 $\frac{1}{10}$ of 0.07 is \dots .

5 0.9 is \dots of 9.

6 10 times \dots is 0.06.

7 The value of the 3 in 0.13 is \dots of the value of the 3 in 0.3.

8 The value of the 4 in 4.2 is \dots times the value of the 4 in 0.402.

9 The value of the 9 in 0.19 is \dots times the value of the 9 in 0.449.

Set 2: Powers of 10

Complete the equations.

1 $4.3 \times 100 = \dots$

2 $0.055 \times 10^4 = \dots$

3 $0.004 \times 10^2 = \dots$

4 $66 \div 100 = \dots$

5 $0.1 \div 10^1 = \dots$

6 $45 \div 10^3 = \dots$

Complete the equations. Fill in each blank with a power of 10 in exponential form.

7 $2.2 \times \dots = 220$

8 $40 \div \dots = 0.04$

9 $0.07 \times \dots = 700$

10 $\dots \times 0.75 = 75$

11 $24 \div \dots = 2.4$

12 $160 \div \dots = 0.016$

Set 3: Compare Decimals

Write $<$, $>$, or $=$ in each circle to compare the numbers.

1 $42.5 \bigcirc 42.05$

2 $3.6 \bigcirc 3.60$

3 $0.24 \bigcirc 0.244$

4 $0.4 \bigcirc 0.364$

5 $65 \bigcirc 65.3$

6 $1.075 \bigcirc 1.65$

Set 4: Read and Write Decimals

Write each number in standard form in problems 1–6.

1 Thirteen and four tenths
.....2 Eight and twenty-two hundredths
.....3 Six hundred and seven thousandths
.....4 Seventy-five thousandths
.....5 $2 \times 10 + 4 \times \frac{1}{10} + 3 \times \frac{1}{1,000}$
.....6 $8 \times \frac{1}{100} + 9 \times \frac{1}{1,000}$
.....

Write each number in word form in problems 7–9.

7 6.047

8 50.12

9 0.305

Set 5: Round Decimals

Round to the nearest whole number for problems 1–3.

1 26.48
.....2 0.533
.....3 5.615
.....

Round to the nearest tenth for problems 4–6.

4 2.154
.....5 15.98
.....6 0.064
.....

Round to the nearest hundredth for problems 7–9.

7 84.167
.....8 18.062
.....9 9.509
.....

Name: _____

Set 6: Add and Subtract Decimals

Add. Show your work.

1 $3.14 + 0.59$

2 $10.205 + 0.41$

3 $16 + 0.09 + 2.51$

Subtract. Show your work.

4 $2.15 - 1.84$

5 $15 - 0.67$

6 $4.754 - 3.62$

Set 7: Add Fractions

Add. Show your work.

1 $\frac{1}{5} + \frac{3}{4}$

2 $\frac{5}{6} + \frac{1}{12}$

3 $1\frac{3}{4} + \frac{2}{3}$

4 $1\frac{4}{5} + 4\frac{3}{8}$

Set 8: Subtract Fractions

Subtract. Show your work.

$$\textcircled{1} \frac{4}{9} - \frac{2}{5}$$

$$\textcircled{2} \frac{7}{3} - \frac{1}{2}$$

$$\textcircled{3} 3\frac{1}{9} - 1\frac{5}{6}$$

$$\textcircled{4} 3\frac{7}{10} - 2\frac{1}{6}$$

Set 9: Multiply and Divide Multi-Digit Numbers

Multiply. Show your work.

$$\textcircled{1} \begin{array}{r} 1,516 \\ \times 24 \\ \hline \end{array}$$

$$\textcircled{2} \begin{array}{r} 377 \\ \times 15 \\ \hline \end{array}$$

$$\textcircled{3} \begin{array}{r} 471 \\ \times 28 \\ \hline \end{array}$$

Divide. Show your work.

$$\textcircled{4} 936 \div 18$$

$$\textcircled{5} 1,034 \div 22$$

$$\textcircled{6} 19 \overline{)2109}$$