



Version 3

Date \_\_\_\_\_

1. Draw a line plot for the following data measured in inches:

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

2. Explain how you decided to divide your wholes into fractional parts and how you decided where your number scale should begin and end.



Name \_\_\_\_\_ Date \_\_\_\_\_

1. Draw a picture that shows the division expression. Then, write an equation and solve.

a. 3÷9 b. 4÷3

2. Fill in the blanks to make true number sentences.



Date \_\_\_\_\_

A baker made 9 cupcakes, each a different type. Four people want to share them equally. How many cupcakes will each person get?

Fill in the chart to show how to solve the problem.

Division Expression	Unit Forms	Fractions and Mixed numbers	Standard Algorithm
	Γ	Draw to show your th	inking:



Date \_\_\_\_\_

Matthew and his 3 siblings are weeding a flower bed with an area of 9 square yards. If they share the job equally, how many square yards of the flower bed will each child need to weed? Use a tape diagram to show your thinking.



Date \_\_\_\_\_

A grasshopper covered a distance of 5 yards in 9 equal hops. How many yards did the grasshopper travel on each hop?

a. Draw a picture to support your work.

b. How many yards did the grasshopper travel after hopping twice?



5: Solve word problems involving the division of whole numbers with answers in the form of fractions or whole numbers.

Date \_\_\_\_\_

1. Find the value of each of the following.



2. Out of 18 cookies,  $\frac{2}{3}$  are chocolate chip. How many of the cookies are chocolate chip?



Name	Date

Solve using a tape diagram.

a. 
$$\frac{3}{5}$$
 of 30

b.  $\frac{3}{5}$  of a number is 30. What's the number?

c. Mrs. Johnson baked 2 dozen cookies. Two-thirds of the cookies were oatmeal. How many oatmeal cookies did Mrs. Johnson bake?



Date \_\_\_\_\_

Solve each problem in two different ways as modeled in the example.

	Example: $\frac{2}{3} \times 6 = \frac{2 \times 6}{3} = \frac{12}{3} = 4$	$\frac{2}{3} \times 6 = \frac{2 \times 6}{3} = 4$
a.	$\frac{2}{3} \times 15$	$\frac{2}{3} \times 15$

b. 
$$\frac{5}{4} \times 12$$
  $\frac{5}{4} \times 12$   $\frac{5}{4} \times 12$ 



Lesson 8: Relate a fraction of a set to the repeated addition interpretation of fraction multiplication.

Nar	ne	Date	
1.	Express 36 minutes as a fraction of an hour: 36 minutes =	hour	

2. Solve.

a.  $\frac{2}{3}$  feet = \_\_\_\_\_ inches b.  $\frac{2}{5}$  m = \_\_\_\_\_ cm c.  $\frac{5}{6}$  year = \_\_\_\_\_ months



Date \_\_\_\_\_

1. Rewrite these expressions using words.

a. 
$$\frac{3}{4} \times \left(2\frac{2}{5} - \frac{5}{6}\right)$$
 b.  $2\frac{1}{4} + \frac{8}{3}$ 

2. Write an expression, and then solve.

Three less than one-fourth of the product of eight thirds and nine



Date \_\_\_\_\_

Use a tape diagram to solve.

 $\frac{2}{3}$  of 5



Lesson 11: Solve and create fraction word problems involving addition, subtraction, and multiplication.

Name
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Date \_\_\_\_\_

In a classroom,  $\frac{1}{6}$  of the students are wearing blue shirts, and  $\frac{2}{3}$  are wearing white shirts. There are 36 students in the class. How many students are wearing a shirt other than blue or white?



Lesson 12: Solve and create fraction word problems involving addition, subtraction, and multiplication.

Name \_\_\_\_\_ Date \_\_\_\_\_

1. Solve. Draw a rectangular fraction model, and write a number sentence to show your thinking.

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

2. Ms. Sheppard cuts  $\frac{1}{2}$  of a piece of construction paper. She uses  $\frac{1}{6}$  of the piece to make a flower. What fraction of the sheet of paper does she use to make the flower?



Date \_\_\_\_\_

1. Solve. Draw a rectangular fraction model to explain your thinking. Then, write a number sentence.

 $\frac{1}{3}$  of  $\frac{3}{7}$  =

2. In a cookie jar,  $\frac{1}{4}$  of the cookies are chocolate chip, and  $\frac{1}{2}$  of the rest are peanut butter. What fraction of all the cookies is peanut butter?



Date \_\_\_\_\_

- 1. Solve. Draw a rectangular fraction model to explain your thinking. Then, write a multiplication sentence.
  - a.  $\frac{2}{3}$  of  $\frac{3}{5} =$

b.  $\frac{4}{9} \times \frac{3}{8} =$ 

2. A newspaper's cover page is  $\frac{3}{8}$  text, and photographs fill the rest. If  $\frac{2}{5}$  of the text is an article about endangered species, what fraction of the cover page is the article about endangered species?



Name

**A STORY OF UNITS** 

Date \_\_\_\_\_

Solve and show your thinking with a tape diagram.

Three-quarters of the boats in the marina are white,  $\frac{4}{7}$  of the remaining boats are blue, and the rest are red. If there are 9 red boats, how many boats are in the marina?



Date \_\_\_\_\_

- 1. Multiply and model. Rewrite the expression as a number sentence with decimal factors.
  - $\frac{1}{10} \times 1.2$

## 2. Multiply.

a. 1.5 × 3 = \_\_\_\_\_ b. 1.5 × 0.3 = \_\_\_\_\_ c. 0.15 × 0.3 = \_\_\_\_\_



Date \_\_\_\_\_

Multiply. Do at least one problem using unit form and at least one problem using fraction form.

a. 3.2 × 1.4 = b. 1.6 × 0.7 =

c. 2.02 × 4.2 =

d. 2.2 × 0.42 =



Name \_\_\_\_\_ Date \_\_\_\_\_

Convert. Express your answer as a mixed number, if possible.

a. 5 in = \_\_\_\_\_ ft b. 13 in = \_\_\_\_\_ ft

c. 9 oz = \_\_\_\_\_ lb

d. 18 oz = \_\_\_\_\_ lb



Lesson 19: Convert measures involving whole numbers, and solve multi-step word problems.

Date \_\_\_\_\_

Convert. Express your answer as a mixed number.

a.  $2\frac{1}{6}$  ft = \_\_\_\_\_ in

b.  $3\frac{3}{4}$  ft = \_\_\_\_\_ yd

c.  $2\frac{1}{2}c = \____ pt$ 

d.  $3\frac{2}{3}$  years = \_\_\_\_\_ months



Lesson 20: Convert mixed unit measurements, and solve multi-step word problems.

Date \_\_\_\_\_

1. Fill in the blanks to make the equation true.

$$\frac{9}{4} \times 1 = \frac{9}{4} \times - = \frac{45}{20}$$

2. Express the fractions as equivalent decimals.

a. 
$$\frac{1}{4} =$$
 b.  $\frac{2}{5} =$ 

c. 
$$\frac{3}{25} =$$
 d.  $\frac{5}{20} =$ 



Lesson 21: Explain the size of the product, and relate fraction and decimal equivalence to multiplying a fraction by 1.

Date \_\_\_\_\_

Fill in the blank to make the number sentences true. Explain how you know.

a.  $\frac{1}{3} \times 11 > 11$ 

b.  $5 \times \frac{1}{8} < 5$ 

c.  $6 \times \frac{2}{-} = 6$ 



	A STORY OF UNITS			Le	sson 23 Exit Ticket	5•4
Na	me			Dat	e	
1.	Fill in the blank using one o	f the following	scaling factors	to make each i	number sentence true.	
		1.009	1.00	0.898		
	a. 3.06 × < 3.06	b.	5.2 ×	_= 5.2	c× 0.89 >	0.89

2. Will the product of 22.65 × 0.999 be greater than or less than 22.65? Without calculating, explain how you know.



Lesson 2	4 Exit 1	<b>Ficket</b>	5•4

Name	 Date	

1. An artist builds a sculpture out of metal and wood that weighs 14.9 kilograms.  $\frac{3}{4}$  of this weight is metal, and the rest is wood. How much does the wood part of the sculpture weigh?

2. On a boat tour, there are half as many children as there are adults. There are 30 people on the tour. How many children are there?



**A STORY OF UNITS** 

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Na	me	Date
1.	Draw a tape diagram and a number	r line to solve. Fill in the blanks that follow.
	a. $5 \div \frac{1}{2} = $	There are halves in 1 whole.
		There are halves in 5 wholes.
		5 is $\frac{1}{2}$ of what number?
	b. $4 \div \frac{1}{4} = $	There are fourths in 1 whole.
		There are fourths in wholes.
		4 is $\frac{1}{4}$ of what number?

2. Ms. Leverenz is doing an art project with her class. She has a 3 foot piece of ribbon. If she gives each student an eighth of a foot of ribbon, will she have enough for her class of 22 students?



Date \_\_\_\_\_

1. Solve. Support at least one of your answers with a model or tape diagram.

a.  $\frac{1}{2} \div 4 =$ \_\_\_\_\_

b.  $\frac{1}{8} \div 5 =$  \_\_\_\_\_

2. Larry spends half of his workday teaching piano lessons. If he sees 6 students, each for the same amount of time, what fraction of his workday is spent with each student?



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Name\_

Date \_\_\_\_\_

1. Kevin divides 3 pieces of paper into fourths. How many fourths does he have? Draw a picture to support your response.

2. Sybil has  $\frac{1}{2}$  of a pizza left over. She wants to share the pizza with 3 of her friends. What fraction of the original pizza will Sybil and her 3 friends each receive? Draw a picture to support your response.



Date \_\_\_\_\_

Create a word problem for the following expressions, and then solve.

a.  $4 \div \frac{1}{2}$ 

b.  $\frac{1}{2} \div 4$ 



Lesson 28: Write equations and word problems corresponding to tape and number line diagrams.

Name	Date
1. 8.3 is equal to	2. 28 is equal to
tenths hundredths	hundredths tenths
3. 15.09 ÷ 0.01 =	4. 267.4 $\div \frac{1}{10} =$

5.  $632.98 \div \frac{1}{100} =$ \_\_\_\_\_



Lesson 29: Connect division by a unit fraction to division by 1 tenth and 1 hundredth.

Date \_\_\_\_\_

Rewrite the division expression as a fraction and divide.

a. 3.2 ÷ 0.8	b. 3.2 ÷ 0.08
c. 7.2 ÷ 0.9	d. 0.72 ÷ 0.09



Date \_\_\_\_\_

Estimate first, and then solve using the standard algorithm. Show how you rename the divisor as a whole number.

1.  $6.39 \div 0.09$ 

2.  $82.14 \div 0.6$ 



Date \_\_\_\_\_

1. Write an equivalent expression in numerical form.

A fourth as much as the product of two-thirds and 0.8

2. Write an equivalent expression in word form.

a. 
$$\frac{3}{8} \times (1 - \frac{1}{3})$$
 b.  $(1 - \frac{1}{3}) \div 2$ 

3. Compare the expressions in 2(a) and 2(b). Without evaluating, determine which expression is greater, and explain how you know.



Date \_\_\_\_\_

An entire commercial break is 3.6 minutes.

a. If each commercial takes 0.6 minutes, how many commercials will be played?

b. A different commercial break of the same length plays commercials half as long. How many commercials will play during this break?

