Date \_\_\_\_\_

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

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

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



Measure and compare pencil lengths to the nearest 1/2, 1/4, and 1/8 of an inch and analyze the data through line plots. 11/10/13



Date \_\_\_\_\_

- 1. Draw a picture that shows the division expression. Then write an equation and solve.
  - b. 4÷3 a. 3÷9

- 2. Fill in the blanks to make true number sentences.
  - b.  $\frac{7}{4} = \underline{\qquad} \div \underline{\qquad}$  c.  $4 \div 9 = -$  d.  $1\frac{2}{7} = \underline{\qquad} \div \underline{\qquad}$ a. 21 ÷ 8 = 🗌





Date \_\_\_\_\_

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

Division Expression	Unit Forms	Fractions and Mixed numbers	Standard Algorithm
	Draw to	l o show your thinking:	<u> </u>

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





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.



Use tape diagrams to model fractions as division. 11/10/13



Name

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?



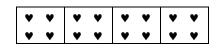
Solve word problems involving the division of whole numbers with answers in the form of fractions or whole numbers. 11/9/13



4.B.53

Date \_\_\_\_\_

1. Find the value of each of the following.



a.  $\frac{1}{4}$  of 16 =

- b.  $\frac{3}{4}$  of 16 =
- 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 them were oatmeal. How many oatmeal cookies did Mrs. Johnson bake?



Lesson 7:

Multiply any whole number by a fraction using tape diagrams. 11/10/13



Date \_\_\_\_\_

- 1. Solve each problem in two different ways as modeled in the example.
  - a. Example:  $\frac{2}{3} \times 6 = \frac{2 \times 6}{3} = \frac{12}{3} = 4$  b.  $\frac{2}{3} \times 6 = \frac{2 \times 6^2}{3} = 4$
  - a.  $\frac{2}{3} \times 15$   $\frac{2}{3} \times 15$
  - b.  $\frac{5}{4} \times 12$   $\frac{5}{4} \times 12$



Lesson 8: Date: Relate fraction of a set to the repeated addition interpretation of fraction multiplication. 11/10/13



4.C.40

Name \_\_\_\_\_ Date \_\_\_\_\_ 1. Express 36 minutes as a fraction of an hour: 36 minutes = \_\_\_\_\_hour

2. Solve.

a. $\frac{2}{3}$ ft =	inches	b. $\frac{2}{5}$ meter =	cm	c. $\frac{5}{6}$ year =	months
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Lesson 9: Date:

Find a fraction of a measurement, and solve word problems. 11/9/13





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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 equation, then solve.
  - a. Three less than one-fourth of the product of eight thirds and nine.



Compare and evaluate expressions with parentheses. 11/10/13



Lesson 11 Exit Ticket 5•4

Name \_\_\_\_\_

Date \_\_\_\_\_

- 1. Use a tape diagram to solve.
  - a.  $\frac{2}{3}$  of 5

COMMON CORE

Lesson 11: Date: Solve and create fraction word problems involving addition, subtraction, and multiplication. 11/10/13



4.D.28

Name

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: Date: Solve and create fraction word problems involving addition, subtraction, and multiplication. 11/10/13



4.D.44

Date \_\_\_\_\_

1. Solve. Draw an area model and write a number sentence to show your thinking.

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

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 model to explain your thinking. Then write a number sentence.

a.  $\frac{1}{3} \text{ of } \frac{3}{7} =$ 

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 are peanut butter?



Multiply unit fractions by non-unit fractions. 11/10/13



Name	Date	e
_		

1. Solve.

a. 
$$\frac{2}{3} \text{ of } \frac{3}{5}$$

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?



Multiply non-unit fractions by non-unit fractions. 11/10/13



Name

Date \_\_\_\_\_

1. 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?



Lesson 16: Date: Solve word problems using tape diagrams and fraction-by-fraction multiplication. 11/10/13



4.E.57

Date \_\_\_\_\_

1. Multiply and model. Rewrite each expression as a number sentence with decimal factors.

a.	$\frac{1}{10} \times 1.2$	

2. Multiply.

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





Name \_\_\_\_\_ Date \_\_\_\_\_ 1. Multiply. a. 3.2 × 1.4 = b. 1.6 × 0.7 =

c. 2.02 × 4.2 =

d. 2.2 × 0.42 =



Relate decimal and fraction multiplication. 11/10/13



 Name
 Date

 1. 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: Date: Convert measures involving whole numbers, and solve multi-step word problems. 11/10/13



4.E.96

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Date \_\_\_\_\_

- 1. Convert. Express your answer as a whole 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. 11/10/13



4.E.109

Name

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: Date: Explain the size of the product, and relate fractions and decimal equivalence to multiplying a fraction by 1. 11/10/13



4.F.14

Date \_\_\_\_\_

- 1. 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.  $6 \times \frac{2}{2} = 6$ 



Compare the size of the product to the size of the factors. 11/10/13



 Name
 Date

 1. Fill in the blank using one of the following scaling factors to make each number sentence true.

 1.009
 1.00
 0.898

 a. 3.06 × \_\_\_\_\_< 3.06</td>
 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.



Compare the size of the product to the size of the factors. 11/10/13



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 ride tour, there are half as many children as there are adults. There are 30 people on the tour. How many children are there?



Solve word problems using fraction and decimal multiplication. 11/10/13



4.F.53

Name	Date	

- 1. Draw a tape diagram and a number 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. $5 \text{ is } \frac{1}{2} \text{ of what number? } _____b. <math>4 \div \frac{1}{4} =$ There are \_\_\_\_\_ fourths in 1 whole.There are \_\_\_\_\_ fourths in 1 whole.There are \_\_\_\_\_ fourths in \_\_\_\_\_ wholes. $4 \text{ is } \frac{1}{4} \text{ of what number? } ______$

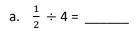
2. Ms. Leverenz is doing an art project with her class. She has a 3-foot piece of ribbon. If she gives each student an eighth of a foot of ribbon, will she have enough for her 22-student class?





Date \_\_\_\_\_

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



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?



Divide a unit fraction by a whole number. 11/10/13



Name

Date \_\_\_\_\_

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

2. Sybil has  $\frac{1}{2}$  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.



Solve problems involving fraction division. 11/10/13



Date \_\_\_\_\_

- 1. 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: Date: Write equations and word problems corresponding to tape and number line diagrams. 11/10/13



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: Date: Connect division by a unit fraction to division by 1 tenth and 1 hundredth. 11/10/13



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Name

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 =



Lesson 30:

Divide decimal dividends by non-unit decimal divisors. 11/10/13



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.  $82.14 \div 0.6$ 



Divide decimal dividends by non-unit decimal divisors. 11/9/13



Name	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.



Lesson 32: Date: Interpret and evaluate numerical expressions including the language of scaling and fraction division. 11/10/13



4.H.13

Name	Date	

- 1. 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?



Lesson 33: Date: Create story contexts for numerical expressions and tape diagrams, and solve word problems. 11/10/13



4.H.29