Name _____ 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. $3 \div 9$

b. $4 \div 3$

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

a. $21 \div 8 =$ ___

b. $\frac{7}{4} =$ _____ ÷ _____

c. $4 \div 9 =$ ___

d. $1\frac{2}{7} =$ _____ ÷ _____

Name _____ 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?

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

Division Expression	Unit Forms	Fractions and Mixed numbers	Standard Algorithm
Draw to show your thinking:			

Name _____ 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.

Name _____ Date _____

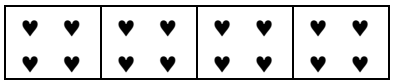
A grasshopper covered a distance of 5 yards in 9 equal hops. How many yards did the grasshopper travel on each hop?

a. Draw a picture to support your work.

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

Name _____ 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?

Name _____ 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. $\frac{2}{3} \times 6 = \frac{2 \times \cancel{6}^{2}}{\cancel{3}_{1}} = 4$

a. $\frac{2}{3} \times 15$

$\frac{2}{3} \times 15$

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

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

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

Name _____ 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.

Name _____ Date _____

1. Use a tape diagram to solve.

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

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?

Name _____ 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?

Name _____ Date _____

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

   a. $\frac{1}{3}$ 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 are peanut butter?

Name _____ Date _____

1. Solve.

   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?

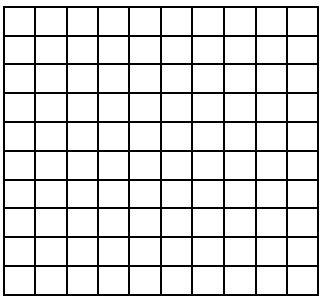
Name _____ Date _____

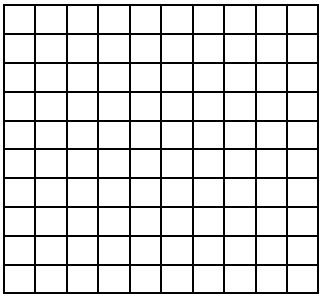
1. Three-quarters of the boats in the marina are white, $\frac{4}{7}$ of the remaining boats are blue, and the rest are red. If there are 9 red boats, how many boats are in the marina?

Name _____ 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. $1.5 \times 3 =$ _____ b. $1.5 \times 0.3 =$ _____ c. $0.15 \times 0.3 =$ _____

Name _____ Date _____

1. Multiply.
   a. $3.2 \times 1.4 =$
   b. $1.6 \times 0.7 =$
   c. $2.02 \times 4.2 =$
   d. $2.2 \times 0.42 =$

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

Name _____ 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

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. $\frac{5}{20}$ =

Name _____ Date _____

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

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

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

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

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

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.

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?

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 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 22-student class?

Name _____ 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?

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.

Name _____ Date _____

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

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

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

Name _____ Date _____

1. 8.3 is equal to

_____ tenths

_____ hundredths

2. 28 is equal to

_____ hundredths

_____ tenths

3. $15.09 \div 0.01 =$ _____

4. $267.4 \div \frac{1}{10} =$ _____

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

Name _____ Date _____

Rewrite the division expression as a fraction, and divide.

a. $3.2 \div 0.8 =$	b. $3.2 \div 0.08 =$
c. $7.2 \div 0.9 =$	d. $0.72 \div 0.09 =$

Name _____ 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. $82.14 \div 0.6$

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.

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?