

Liquid Measures

Home Link 7-1

NAME _____

DATE _____

TIME _____

Find at least one container that holds each of the amounts listed below.
Describe each container and record all the measurements on the label.



- ① About 1 gallon

Container	Liquid Measurements on Label
<i>jug of orange juice</i>	<i>gallon, 3.78 L</i>

- ② About 1 quart

Container	Liquid Measurements on Label
<i>container of milk</i>	<i>1 quart, 32 fl oz</i>

- ③ About 1 pint

Container	Liquid Measurements on Label

- ④ About 1 cup

Container	Liquid Measurements on Label

Complete.

⑤ 2 quarts = _____ pints

⑥ 3 gallons = _____ cups

⑦ _____ pints = 4 cups

⑧ _____ quarts = 12 cups

⑨ 6 pints = _____ quarts

⑩ _____ quarts = $2\frac{1}{2}$ gallons

Practice

⑪ $273 * 2 =$ _____

⑫ $385 * 4 =$ _____

⑬ _____ = $886 * 5$

⑭ _____ = $98 * 38$

Sugar in Drinks

Home Link 7-2

NAME _____

DATE _____

TIME _____

Use the information in the table to solve the number stories. In the space below each problem, use pictures or equations to show what you did to find your answers.



Amount of Sugar in Drinks		
Drink	Sugar Content (in cups)	Serving Size (in ounces)
Cranberry juice cocktail	$\frac{1}{4}$	12
Fruit punch	$\frac{1}{4}$	12
Orange soda	$\frac{1}{4}$	12
Sweet tea	$\frac{1}{6}$	12

Sources: National Institutes of Health and California Department of Public Health

- ① Carmen drinks one 12-ounce can of orange soda every day. How much sugar is that in 1 week? _____ cup(s)

- ② If you drink one 12-ounce glass of cranberry juice cocktail every morning, how much sugar will that be in 2 weeks? _____ cup(s)

- ③ Mike drinks three 12-ounce servings of sweet tea per day.
 - a. How much sugar is he drinking in his tea in 1 day?
_____ cup(s)
 - b. In 5 days? _____ cup(s)

Practice

④ $951 * 4 =$ _____

⑤ $650 * 5 =$ _____

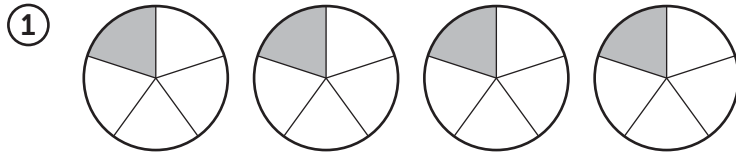
⑥ $425 * 7 =$ _____

⑦ $3,684 * 6 =$ _____

Multiplying Unit Fractions

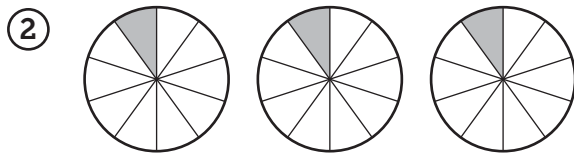


Write a multiplication equation to describe each picture or story.



Multiplication equation: _____

What is the fourth multiple of $\frac{1}{5}$? _____



Multiplication equation: _____

What is the third multiple of $\frac{1}{10}$? _____

③ Dmitri fixed a snack for 5 friends. Each friend got $\frac{1}{2}$ of an avocado. How many avocados did Dmitri use?

Multiplication equation: _____

Answer: _____ avocado(s)

④ Juanita made 3 protein shakes. All together, she used 1 cup of protein powder to make them. Each had the same amount.

How many cups of protein powder are in each shake?

Multiplication equation: _____

Answer: _____ cup(s)

Practice

⑤ $\frac{1}{2} + \frac{1}{2} + \frac{1}{2} =$ _____

⑥ $\frac{2}{3} + \frac{2}{3} + \frac{1}{3} =$ _____

⑦ $\frac{9}{10} - \frac{4}{10} =$ _____

⑧ $\frac{8}{12} - \frac{5}{12} =$ _____

Multiplying Fractions by Whole Numbers



Solve the problems below.

① $5 * \frac{1}{5} =$ _____

Draw a picture.

② $3 * \frac{4}{9} =$ _____

Draw a picture.

③ $6 * \frac{3}{6} =$ _____

Draw a picture.

Write a multiplication equation to represent the problem and then solve.

④ Rahsaan needs to make 5 batches of granola bars. A batch calls for $\frac{1}{2}$ cup of honey.

How much honey does he need? Equation: _____

⑤ Joe swims $\frac{6}{10}$ of a mile 5 days per week. How far does he swim every week?

Equation: _____

How far would he swim if he swam every day of the week?

Equation: _____

Practice

⑥ $653 * 3 =$ _____

⑦ $262 * 8 =$ _____

⑧ $357 * 9 =$ _____

⑨ $7,376 * 2 =$ _____

Multiplying Mixed Numbers by Whole Numbers



Solve.

- ① Michelle's grandmother sent her 5 small gifts for her fifth birthday. Each one weighed $1\frac{1}{2}$ pounds. How much did the gifts weigh all together?

Number model with unknown: _____

Answer: _____ pounds

Between what two whole numbers is this? _____ and _____

How many ounces did the gifts weigh? _____ ounces

- ② Rochelle bought 4 pieces of ribbon to finish a project. Each piece was $1\frac{5}{12}$ yards long. What is the combined length of the ribbon she bought?

Number model with unknown: _____

Answer: _____ yards

Between what two whole numbers is this? _____ and _____

How many feet is this? _____ feet

③ $3 * 4\frac{5}{6} =$ _____

Between what two whole numbers is this? _____ and _____

④ $6 * 7\frac{3}{8} =$ _____

Between what two whole numbers is this? _____ and _____

Practice

⑤ $\frac{3}{4} + \frac{2}{4} + \frac{1}{4} =$ _____

⑥ $\frac{4}{8} + \frac{3}{8} + \frac{2}{8} =$ _____

⑦ $\frac{5}{6} - \frac{2}{6} =$ _____

⑧ $\frac{88}{100} - \frac{57}{100} =$ _____

Fruit Salad Weight

Mr. Chou makes fruit salad that he sells in his store. Today he plans to make a fruit salad with 8 pears, 2 cups of grapes, and 4 pints of strawberries. Use the weights below to solve the problems.



- A medium pear weighs about $\frac{3}{8}$ lb.
- A cup of grapes weighs about $\frac{2}{8}$ lb.
- A pint of strawberries weighs about $\frac{5}{8}$ lb.

① Write a multiplication sentence to show how much the pears weigh. _____

Answer: _____ pound(s)

② Write a multiplication sentence to show how much the grapes weigh. _____

Answer: _____ pound(s)

③ Write a multiplication sentence to show how much the strawberries weigh.

Answer: _____ pound(s)

④ How much does Mr. Chou's salad weigh in all? Show your work.

Answer: _____ pound(s)

Practice

⑤ $361 \div 8 =$ _____

⑥ $396 \div 7 =$ _____

⑦ $963 \div 5 =$ _____

⑧ $633 \div 4 =$ _____

Division Number Stories

Home Link 7-7

NAME _____

DATE _____

TIME _____

Solve. Show your work.



- ① Robert and Jason want to buy a group ticket package for football games. Package A costs \$276 and includes 2 tickets for each of 6 games. Package B costs \$336 and includes 2 tickets for each of 8 games. Which package charges more per ticket? How much more per ticket?

Package _____ charges \$_____ more per ticket.

- ② Rebecca wants to put 544 pennies in a coin-collection book. The blue book fits 9 pennies per page. The red book fits 7 pennies per page. How many more pages would she need if she used the red book rather than the blue one?

The red book will take _____ more pages than the blue book.

What did you do with any remainders you found?

Practice

③ $754 * 6 =$ _____

④ $906 * 2 =$ _____

⑤ _____ $= 831 * 7$

⑥ _____ $= 84 * 29$

More Division Measurement Number Stories

Home Link 7-8

NAME _____

DATE _____

TIME _____

Read each number story. Use the information to write a number model with an unknown and then solves.



- ① Kelly is in charge of bringing water for her softball game. The 8 members of the team have matching team water bottles that hold 500 mL. Kelly buys 5 liters of water at the store. If she fills all the bottles, how many milliliters of water will Kelly have left?

Number model with unknown: _____

Answer: _____ milliliters

- ② The distance around all the bases in softball is 72 meters. If Kelly hits 2 home runs and runs around the bases twice, how many millimeters will she run?

Number model with unknown: _____

Answer: _____ millimeters

- ③ In women's softball the pitcher stands about 13 meters from the batter's box. In men's softball the pitcher stands about 1,400 centimeters from the batter's box. About how many more centimeters is it from the men's pitcher to the batter's box than from the women's pitcher to the batter's box?

Number model with unknown: _____

Answer: About _____ centimeters

- ④ The 6 games Kelly's team played took a total of 7 hours.

- a. How many minutes total did they play softball?

Number model with unknown: _____

Answer: _____ minutes

- b. If each game lasted the same amount of time, how many minutes did each one last?

Number model with unknown: _____

Answer: _____ minutes

Practice

⑤ $1\frac{3}{6} + 2\frac{1}{6} =$ _____

⑥ $4\frac{3}{5} + 5\frac{4}{5} =$ _____

⑦ $7\frac{5}{12} - 2\frac{3}{12} =$ _____

⑧ $6\frac{1}{3} - 2\frac{2}{3} =$ _____

Perimeter Patterns

Alice was making squares out of toothpicks. She noticed a pattern involving the length of one side and the perimeter of the square. Complete the table and then answer the questions that follow.



Side Length	Perimeter
1	4
2	
	12
4	
	20



- ① What rule describes the relationship between the length of one side and the perimeter of a square?

- ② What would be the perimeter of a square with a side length of 25 toothpicks?

_____ toothpicks

- ③ What would be the side length of a square with a perimeter of 500 toothpicks?

_____ toothpicks

- ④ Describe at least two other patterns you notice in the table _____

Practice

⑤ $753 \div 3 =$ _____

⑥ _____ $= 386 \div 2$

⑦ $283 \div 9 \rightarrow$ _____

⑧ $505 \div 6 \rightarrow$ _____

Fitness Challenge

Use the information in the table below to solve the number stories.



During Marcy School's 2-week challenge, each student who meets a goal wins a prize.

Marcy's Fitness Challenge Goals			
Activity	Total Distance	Activity	Total Distance
Walking	6 miles	Bike Riding	6 miles
Swimming	1 mile	Running	4 miles

① Tony will run $\frac{1}{2}$ mile after school each day. Will he win a prize? _____

a. Distance run in 1 week: _____ mile(s) b. In 2 weeks: _____ mile(s)

Explain how you found your answer.

② Three times a week, Tina walks $\frac{3}{10}$ mile from school to the library, studies for 1 hour, and then walks $\frac{4}{10}$ mile home. How much more will she need to walk to win a prize?

_____ mile(s)

Explain how you found your answer.

Practice

③ $642 \div 2 =$ _____

④ $386 \div 9 \rightarrow$ _____

⑤ $739 \div 5 \rightarrow$ _____

⑥ $4 \overline{)829} \rightarrow$ _____

Fractions and Mixed Numbers

Home Link 7-11

NAME _____

DATE _____

TIME _____

Solve. Draw a picture or show how you solved the problem.



① $5 * \frac{3}{5} =$ _____

② _____ $= 4\frac{2}{6} - 2\frac{4}{6}$

③ $5\frac{7}{8} + 3\frac{1}{8} =$ _____

④ _____ $= 3 * 4\frac{1}{4}$

⑤ The combined weight of an assortment of fruit is $8\frac{3}{4}$ pounds. When the fruit is on a tray, the tray weighs $10\frac{1}{4}$ pounds. How many pounds does the tray weigh when empty? _____ pound(s)

How many ounces does the tray weigh when empty? _____ ounce(s)

⑥ $(3 * 2\frac{2}{3}) + (2 * 4\frac{1}{3}) =$ _____

Practice

⑦ $3\overline{)350}$

⑧ $6\overline{)832}$

⑨ $7\overline{)295}$

⑩ $9\overline{)582}$

Shopping for Bargains

Home Link 7-12

NAME _____

DATE _____

TIME _____

Solve each number story and show how you solved the problems.



- ① Phil wants to buy some Creepy Creature erasers that cost \$1.05 each. If he buys 5 or more, the price is \$0.79 each. If he decides to buy 7 erasers, how much will he spend?

Answer: \$ _____

- ② Mrs. Katz bought 3 pounds of apples and a muffin for snacks. The apples cost \$2.59 per pound if you buy less than 3 pounds and \$2.12 per pound if you buy 3 or more pounds. The muffin cost \$1.95. How much did she spend?

Answer: \$ _____

Try This

- ③ Mrs. Katz paid with a \$10 bill. How much change did she get back?

Answer: \$ _____

Practice

Fill in the blanks with $>$, $<$, or $=$.

- ④ 0.55 ____ 0.65 ⑤ 0.3 ____ 0.30 ⑥ 0.72 ____ 0.8 ⑦ 0.4 ____ 0.31

Pencil Lengths

At the beginning of the year Mrs. Kerry gave each student in her class a new pencil with "Welcome to 4th Grade" written on it. A month later the class measured their pencils to the nearest $\frac{1}{8}$ inch.



Pencil Lengths to the Nearest $\frac{1}{8}$ inch

$2\frac{1}{8}$	$3\frac{1}{8}$	$2\frac{7}{8}$	$2\frac{4}{8}$	$3\frac{3}{8}$	$2\frac{7}{8}$	3	$2\frac{5}{8}$	$2\frac{5}{8}$	$2\frac{7}{8}$	$3\frac{3}{8}$	$2\frac{6}{8}$	$2\frac{4}{8}$
$2\frac{3}{8}$	$2\frac{7}{8}$	$1\frac{7}{8}$	$3\frac{2}{8}$	$2\frac{7}{8}$	$3\frac{4}{8}$	$2\frac{6}{8}$	$2\frac{3}{8}$	$3\frac{1}{8}$	2	$2\frac{4}{8}$	$2\frac{5}{8}$	$3\frac{2}{8}$

Plot the data set on the line plot.

Title: _____



Pencil Lengths

(continued)

Home Link 7-13

NAME

DATE

TIME



Use the completed line plot to answer these questions.

- ① How many students have a pencil that is shorter than $2\frac{7}{8}$ inches?
_____ students
- ② What is the most common pencil length? _____ inches
- ③ a. How many pencils are less than $2\frac{2}{8}$ inches long? _____ pencils
b. What is their combined length? _____ inches
- ④ a. How many pencils are between $2\frac{7}{8}$ and $3\frac{2}{8}$ inches long? _____ pencils
b. What is their combined length? _____ inches
- ⑤ a. How long is the longest pencil? _____ inches
b. How long is the shortest pencil? _____ inches
c. What is the combined length of the longest and shortest pencils? _____ inches
d. What is the difference in length of the longest and shortest pencils?
_____ inches

Practice

⑥ $2\frac{1}{4} + 5\frac{2}{4} =$ _____

⑦ $8\frac{5}{10} + 3\frac{7}{10} =$ _____

⑧ $3\frac{7}{8} - 1\frac{3}{8} =$ _____

⑨ $7\frac{41}{100} - 3\frac{51}{100} =$ _____