Super-Journal Week 3:7

Every night, you should be reading at least 30 minutes of whatever book you have checked out from your assigned reading list. Tape or glue (but do not staple) this sheet into your Super-Journal on the left-side page. Fill in the table below *every day* by recording the required data.

Day	Title	Start Pg.	End Pg.	Parent Sign.
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Saturday				
Sunday				

On the right-side page of your Super-Journal, answer two of the questions below throughout the week. Be sure that the questions you choose to answer go with the appropriate type of book (Fiction or Nonfiction). The Super-Journal is due on the first day after the weekend (usually Monday). To earn credit for your journal entry, you *must* respond in at least five complete sentences per response and use **specific evidence from the text to support your claim** based on what you've read this week.

FICTION

1. How do illustrations or images add to the meaning of a story?
2. How do or could illustrations/graphics add to the tone or mood of the chapter you just finished reading? How could a picture change your feelings about what you just read?

NONFICTION

1. What is this text about?
2. Summarize the main ideas in 5 sentences.

RL.3.7/RI.1.2

Super-Journal Week 3:7

Every night, you should be reading at least 30 minutes of whatever book you have checked out from your assigned reading list. Tape or glue (but do not staple) this sheet into your Super-Journal on the left-side page. Fill in the table below *every day* by recording the required data.

Day	Title	Start Pg.	End Pg.	Parent Sign.
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Saturday				
Sunday				

On the right-side page of your Super-Journal, answer two of the questions below throughout the week. Be sure that the questions you choose to answer go with the appropriate type of book (Fiction or Nonfiction). The Super-Journal is due on the first day after the weekend (usually Monday). To earn credit for your journal entry, you *must* respond in at least five complete sentences per response and use **specific evidence from the text to support your claim** based on what you've read this week.

FICTION

1. How do illustrations or images add to the meaning of a story?
2. How do or could illustrations/graphics add to the tone or mood of the chapter you just finished reading? How could a picture change your feelings about what you just read?

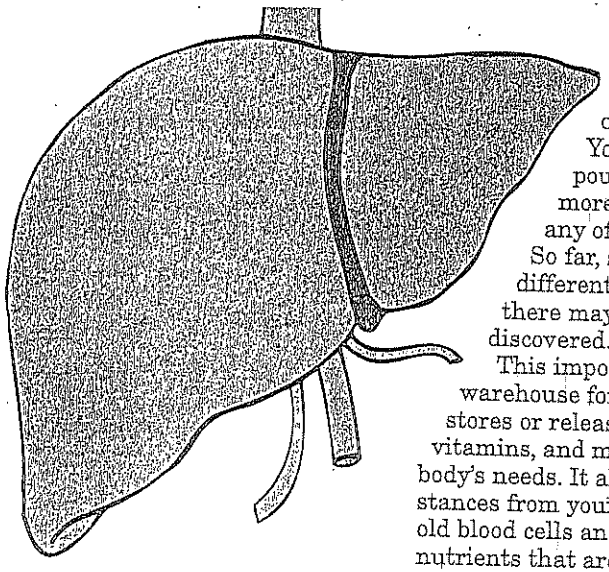
NONFICTION

1. What is this text about?
2. Summarize the main ideas in 5 sentences.

RL.3.7/RI.1.2

The Body's Chemical Factory

During your lifetime, you may consume from 60,000 to 100,000 pounds of food! Without enzymes, the body couldn't digest any of that food.



Do you know what your body's largest internal organ is? It's your *liver*. Your liver weighs about 4 1/2 pounds. Your liver also has more separate functions than any of your body's other organs. So far, scientists know of 500 different functions of the liver, and there may be many others yet to be discovered.

This important organ acts like a warehouse for your body's nutrients. It stores or releases sugars, starches, fats, vitamins, and minerals according to your body's needs. It also removes harmful substances from your blood. Your liver filters old blood cells and processes most of the nutrients that are absorbed from the small intestine. Your liver is the most complex organ in the digestive system.

Directions: Circle the letter that is the correct answer for each question.

1. The body's largest internal organ is

   (a) the stomach (b) the liver (c) the gall bladder

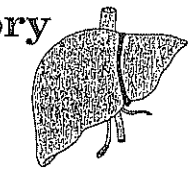
2. About how much does the liver weigh?

   (a) 4 1/2 ounces (b) 14 ounces (c) 4 1/2 pounds

3. The liver acts like a

   (a) warehouse (b) pump (c) both a and b

The Body's Chemical Factory



Directions: Use words from the text to fill in the blanks.

1. Name five nutrients that the liver stores.

   _____

   _____

2. Weighing about 4 1/2 pounds, the liver is the _____ internal organ.

3. Which word in the text means "a series of changes by which something develops"? _____

4. The liver detoxifies the _____.

5. The liver filters out old blood _____.

6. The liver processes most of the nutrients that are absorbed from the _____.

7. The liver is the digestive system's most _____ organ.

8. Without enzymes, your body couldn't _____ food.

Research: One of the liver's jobs is to deal with poisonous chemicals in the blood such as drugs and alcohol. Find out what happens to the liver after constant alcohol or drug abuse. Draw a cartoon or make a poster that tells why alcohol is bad for your liver.

Bonus: The liver acts as a filter for the body. To simulate what the liver does for our bodies, use a strainer or a few coffee filters to do this experiment. Pour different substances through the strainer or filters. Try freshly squeezed fruit juice. What happens? What slips through the filter, and what stays in? Write a few sentences about what straining or filtering does to a substance.

Relate Fractions to Division

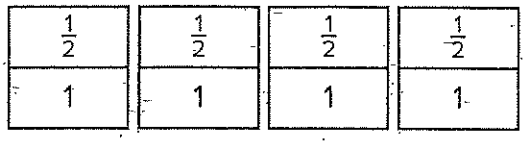
Name _____

Review

You can use a representation to help you relate fractions to division.

Consider $6 \div 4$. You are dividing 6 units equally among 4 containers.

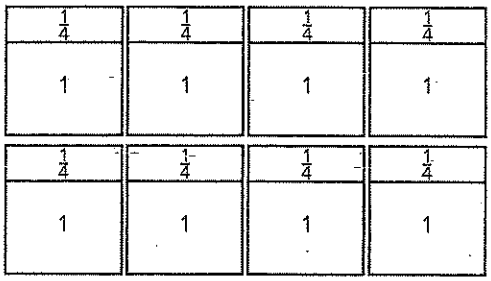
To begin, each container gets 1 unit. $6 - 4 = 2$, so there are 2 units remaining to split among 4 containers, or 1 unit split among 2 containers. This means each container gets an additional $\frac{1}{2}$ unit.



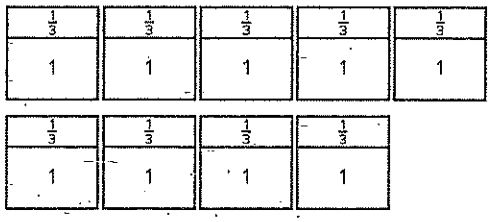
$6 \div 4 = 1\frac{1}{2}$

What equation is shown in the representation?

1. $10 \div$ _____ $=$ _____



2. _____ $\div 9 =$ _____



What is the division equation? Fill in the missing values.

3. _____ $\div$ _____ $= \frac{13}{6}$

4. $3 \div 11 =$ _____

5. _____ $\div$ _____ $= \frac{2}{9}$

6. $15 \div 4 =$ _____

7. _____ $\div$ _____ $= \frac{8}{12}$

8. _____ $\times 12 = 12 \div 5$

9. $\frac{1}{8} \times 19 = 19 \div$ _____

10. $\frac{1}{3} \times$ _____ $= 14 \div 3$

Lesson 11-1

Additional Practice

Name _____

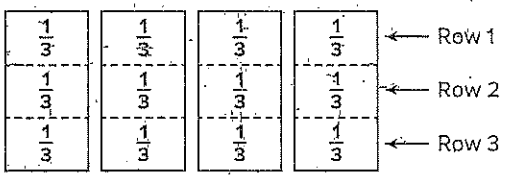
Review

You can interpret a fraction as another way to write a division expression.

Tynisha cuts a wooden board that is 4 feet long into 3 equal sections. What is the length of each piece of wood?

To solve, find $4 \div 3$.

Draw 4 wholes and divide each into 3 equal pieces.



The total for each row is the quotient. Since each row contains 4 one-thirds of a foot, the length of each piece is $\frac{4}{3}$ or $1\frac{1}{3}$ feet long.

$4 \div 3 = \frac{4}{3}$ or $1\frac{1}{3}$

What division expression is represented by the fraction?

1. $\frac{12}{5}$

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

3. $\frac{3}{8}$

4. $\frac{9}{2}$

What fraction is represented by the division expression?

5. $7 \div 6 =$ _____

6. $12 \div 3 =$ _____

7. $2 \div 5 =$ _____

8. $6 \div 8 =$ _____

9. $10 \div 10 =$ _____

10. $1 \div 4 =$ _____

11. Giselle has 3 pounds of peanuts. She shares the peanuts by putting an equal amount into each of 5 bags. What is the weight of the peanuts in each bag?

12. Juan walks 8 miles. He divides the walk into 3 equal parts so he knows when to stop for water. How far does Juan walk between stops?

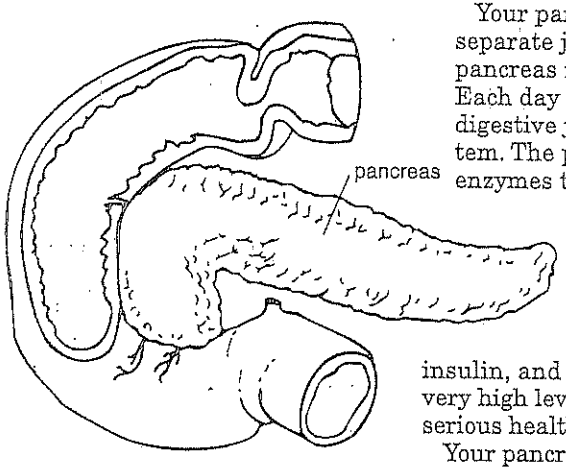
13. Aubrey draws a line that is 34 centimeters long. She divides the line into 6 equal parts. How long is each part of the line?

Math @ Home Activity

Provide opportunities for your child to explore how fractions and division are related. For example, ask him or her to determine how much each person would receive if a given amount, such as 2 pounds of granola, was divided equally among each person in your family. Have your child write a division expression and a fraction for the situation.

Sugar Regulator

Some people with diabetes need insulin shots every day.



Your pancreas is a gland with two separate jobs in digestion. First, the pancreas is like a giant *salivary gland.* Each day it pours one to two pints of digestive juices into the digestive system. The pancreas also manufactures enzymes that digest fats, carbohydrates, and proteins.

Your pancreas also produces *insulin,* a hormone used throughout the body to control your sugar level. Some people don't produce enough insulin, and their blood sugar rises to a very high level after a meal. This can cause serious health problems such as diabetes.

Your pancreas also secretes *glucagon,* a hormone that moves sugar from the liver into the blood when levels are low. Because the level of sugar in your blood is important to your health, your pancreas is a vital gland.

Directions: Use a word or phrase from the text to complete each sentence.

1. The pancreas has_____ jobs in the digestive system.

2. The pancreas manufactures _____ that digest nutrients.

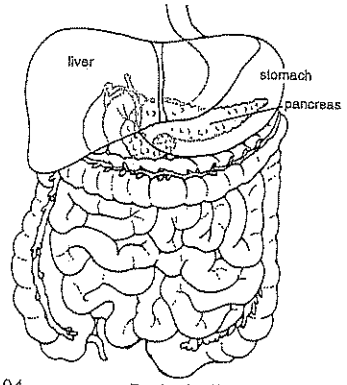
3. Three nutrients that the pancreatic enzymes help digest are

_____.

Sugar Regulator

Directions: Use the text or a dictionary to find the definition of each word. Draw a line to connect each word to its definition.

1. pancreas	a. a sickness in which the body produces little or no insulin
2. organs	b. a substance produced in plant and animal cells that causes a chemical change
3. enzyme	c. a large gland behind the stomach that sends a juice into the small intestine to help digestion
4. insulin	d. a condition of not being healthy
5. diabetes	e. The liver and kidneys are examples of these.
6. hormone	f. a hormone of the pancreas that helps the body use sugar and starches
7. disease	g. a substance formed in an organ and carried in the blood to other parts of the body

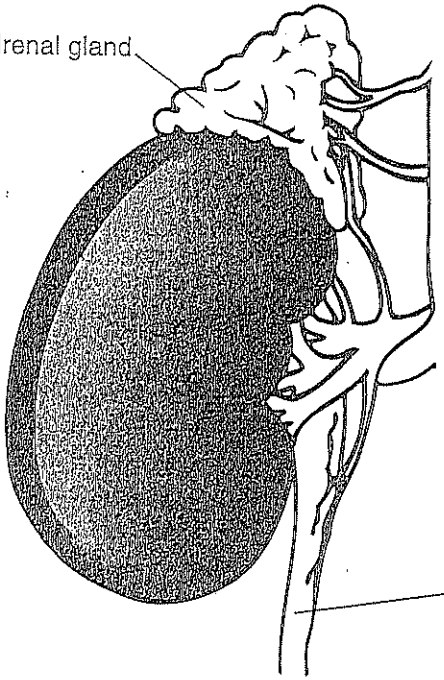


Research: What are *glucose* and *glycogen?* In a few sentences, describe the difference between glucose and glycogen.

Bonus: Do you know a person who has diabetes? Interview the person and ask him these questions. Be sure to record his answers. What is the most difficult thing about having diabetes? What is your biggest worry about the disease? How do you treat the disease?

Shaped Like A Bean

About 2 1/2 pints of blood are pumped through the kidneys every minute. That is more than a quart!



Do you know why kidney beans have that name? It's because they are shaped like your body's *kidneys*. You have two kidneys. They are located on each side of your spine, above your waist, behind your abdominal cavity. Two tubes connect the kidneys with the *bladder*.

The kidneys filter waste from the blood. This waste combines with water to form a fluid called *urine*. The tiny units in the kidneys that filter the blood are called *nephrons*. Each kidney has more than one million (1,000,000) nephrons.

Directions: Unscramble the words to complete the sentences.

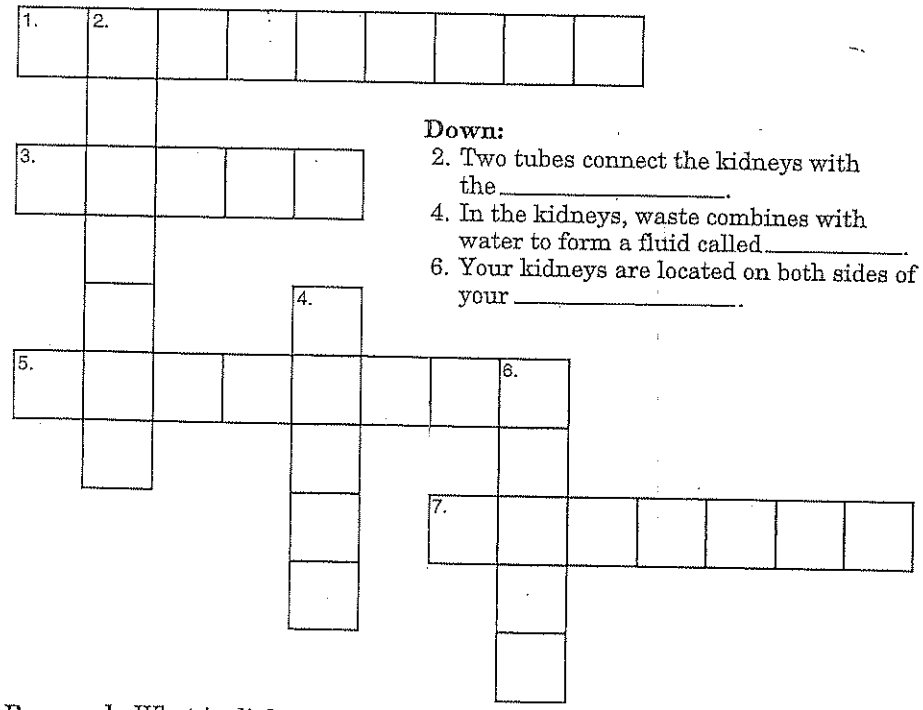
1. Most people have two (s y d k i n e) _____.
2. Tubes (c c n t o e n) _____ the kidneys with the bladder.
3. The kidneys (i l f r e t) _____ waste from the blood.
4. (n i u r e) _____ is made in the kidneys.
5. Nephrons are the (t s i n u) _____ that filter waste from the blood in the kidneys.

Shaped Like A Bean

Directions: Use the clues and the text to fill in the crossword puzzle.

Across:

1. Kidneys are above your waist and behind your _____ cavity.
3. Your kidneys filter _____ from your blood.
5. The tiny units in the kidneys that filter the blood are called _____.
7. Kidney beans are shaped like your body's _____.



Down:

2. Two tubes connect the kidneys with the _____.
4. In the kidneys, waste combines with water to form a fluid called _____.
6. Your kidneys are located on both sides of your _____.

Research: What is *dialysis?* Describe it in a few sentences.

Bonus: Have you ever eaten kidney pie? Make a list of internal organs of animals that some people eat.

The Excretory System

Cross-Curricular Focus: Life Science

Your body is approximately 60% water. Water is part of all the cells in your body and the plasma in your blood. Water helps your cells receive the nutrients they need, and it helps take away the wastes.

All living things produce wastes. It is the job of the excretory system to regulate the amount of water that you have in your body and to help remove wastes from your system. If wastes build up in your blood and in your cells, your body becomes toxic, which can be deadly.

Several different organs are involved in your excretory system. Even your skin participates in the process! You have sweat glands that can release water onto the surface of your skin to keep you from getting overheated. You might find it inconvenient to sweat in certain situations, but people who physically cannot sweat are in constant danger of dying from heat stroke, so be glad if you can sweat!

Your liver is an important part of the process as well. Whenever your body recycles parts of cells that are damaged or old, they become part of the wastes that need to be removed. This recycling puts a lot of nitrogen into your blood. Your liver filters the nitrogen out of your blood, changing it into urea. Without your liver, you could die of nitrogen poisoning.

Just inside your lower back are two large bean-shaped organs called your **kidneys**. Their main job is to filter out the urea in your blood. The kidneys have a sophisticated system of pumps and tubes. Most of the liquid is returned to the blood, where it continues on its way through the circulatory system. Your kidneys have sensors that tell it how much water to release. If you've been drinking a lot of water, your blood will have more water in it. Your kidneys can tell. They send only the right amount of water back into the blood. The small portion of liquid that remains behind becomes **urine**. It drains through tiny tubes called ureters into a muscular bag called the **bladder**. Your body knows when your bladder is full and needs to be emptied. Your brain receives a signal to let you know that it's time to visit the bathroom.

Name: _____

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) In your own words, explain why the excretory system is important to your body.

_____

_____

2) Why is it dangerous to be unable to sweat?

_____

_____

3) What substance does the liver change into urea?

_____

_____

4) Which organs turns liquid into urine?

_____

_____

5) What happens if waste builds up in our body?

_____

_____

Solve Problems Involving Division

Name _____

Review

You can use context to determine whether to write a quotient with a remainder or as a mixed number.

Fiona has 30 paperback books. She gives each of her 4 friends the same number of books. How many books did she give each friend?

$30 \div 4 = 7$ with 2 remaining

Fiona gives each friend 7 books and has 2 books remaining.

Andy is dividing 30 pounds of flour equally among 4 bags. How many pounds of flour does he put in each bag?

$$30 \div 4 = 7\frac{2}{4} = 7\frac{1}{2}$$

Andy puts $7\frac{1}{2}$ pounds of flour in each bag.

What is the quotient? Determine whether the answer should be written with a remainder or as a mixed number.

1. Gavin ran a total of 49 miles the last two weeks. He ran the same number of miles each day. How many miles did Gavin run each day?

2. Angela has 100 eggs to sell at the market. She packages the eggs in cartons which hold 12 eggs each. How many cartons does she have to sell at the market?

3. Chris has 50 pounds of deer sausage. He puts an equal amount into 18 bags. How much sausage will be in each bag?

4. Elyse made 72 bookmarks for her book club. She gave each of the 15 members the same number of bookmarks. How many bookmarks did each club member get?

Lesson 11-2

Additional Practice

Name _____

Review

You can determine whether the quotient should be written with a remainder or as a mixed number.

A pitcher holds 42 fluid ounces of lemonade. Helene pours an equal amount into each of 5 glasses until the pitcher is empty. How much lemonade does Helene pour into each glass?

To solve, find $42 \div 5$.

With a remainder, $42 \div 5 = 8$ with 2 remaining.

As a mixed number, $42 \div 5 = 8\frac{2}{5}$.

Since fractional parts of fluid ounces can be poured, write the answer as a mixed number.

Helene pours $8\frac{2}{5}$ fluid ounces into each glass.

How would you write the quotient for the problem?

1. Callie walked a certain number of miles last week. She walked the same number of miles each day. How many miles did she walk each day?
   - A. as a mixed number
   - B. with a remainder
   - C. either way is appropriate

2. Debbie made some bracelets. She gave the same number of bracelets to each of her friends. How many bracelets did she give to each friend?
   - A. as a mixed number
   - B. with a remainder
   - C. either way is appropriate

3. A 10-kilometer race is divided into 3 equal sections. How long is each section of the race?

4. A teacher orders a box of 100 pencils to give to the students. Each of the 18 students receives the same number of pencils. How many pencils does each student get?

5. A fence is 40 yards long. Fence posts are placed so that there are 6 equal sections. How far apart are the fence posts?

6. A grocer has 50 peaches to sell. He packages them in groups of 3. How many packages does the grocer make?

Math @ Home Activity

Provide opportunities for your child to explore how division might be represented with a remainder or with a mixed number. For example, if you make a 64-fluid ounce pitcher of a drink and you pour the same amount into each of 10 plastic cups, how many fluid ounces will be in each cup?

Lesson 11-3 • Reinforce Understanding

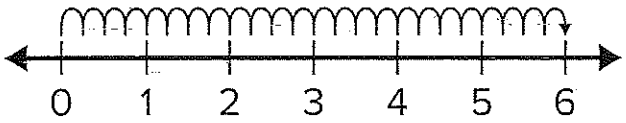
Explore Division of Whole Numbers by Unit Fractions

Name _____

Review

You can use a number line to help you solve division problems of whole numbers by unit fractions.

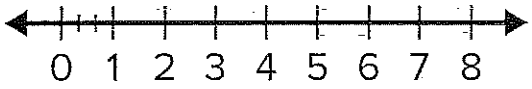
Consider $6 \div \frac{1}{4}$. Make a number line with tick marks from 0 to 6. Since you are dividing by $\frac{1}{4}$, start at 0 and draw four jumps from 0 to 1, four jumps from 1 to 2, and so on. Count the total number of jumps, which should be 24.



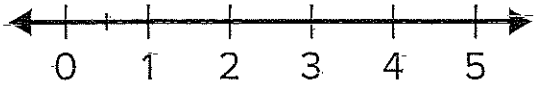
$6 \div \frac{1}{4} = 24$

What is the quotient? Use the number line representation to help you solve.

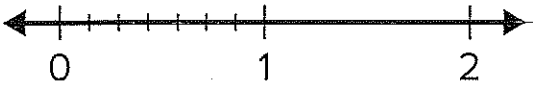
1. $8 \div \frac{1}{3} =$ _____



2. $5 \div \frac{1}{2} =$ _____

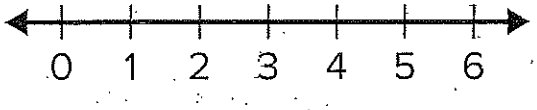


3. $2 \div \frac{1}{7} =$ _____

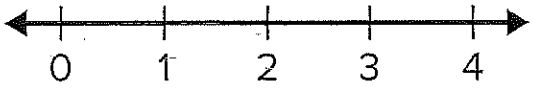


4. $3 \div \frac{1}{4} =$ _____

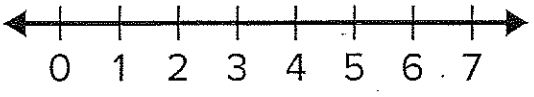
5. $6 \div \frac{1}{3} =$ _____



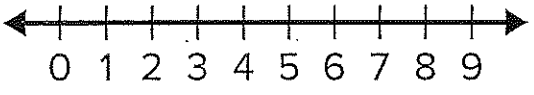
6. $4 \div \frac{1}{5} =$ _____



7. $7 \div \frac{1}{3} =$ _____



8. $9 \div \frac{1}{2} =$ _____



Lesson 11-3

Additional Practice

Name _____

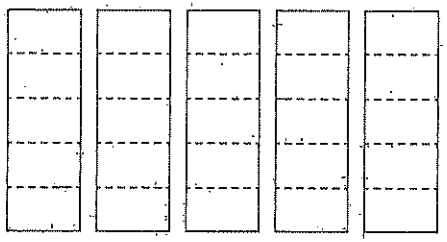
Review

You can use a representation to find the quotient of a whole number divided by a unit fraction!

Rosanna has 5 large pieces of fabric. To make a quilt, she needs to cut each large piece of fabric into 5 pieces or $\frac{1}{5}$s. How many smaller pieces of fabric will she have?

To solve, find $5 \div \frac{1}{5}$.

Use a representation to find the quotient. Draw 5 wholes. Divide each whole into $\frac{1}{5}$s.



There are 25 pieces that are $\frac{1}{5}$ of a whole.

Rosanna will have 25 smaller pieces of fabric.

What is the quotient? Use a representation to solve.

1. $3 \div \frac{1}{8} =$ _____

2. $8 \div \frac{1}{5} =$ _____

3. $4 \div \frac{1}{4} =$ _____

4. $2 \div \frac{1}{6} =$ _____

5. Carl has a board that is 4 feet long. He makes shelves that are $\frac{1}{2}$ foot long. How many shelves can he cut from the board?

_____ shelves

6. A baker has 8 pounds of flour. Each cake needs $\frac{1}{3}$ pound of flour. How many cakes can be made with the available flour?

_____ cakes

7. A medium pizza is cut so that each slice is $\frac{1}{6}$ of the pizza. How many slices are there in 3 medium pizzas?

_____ slices

8. A caterer makes 6 pans of fruit salad. Each serving is to be $\frac{1}{10}$ the size of the pan. How many servings of fruit salad can be served?

_____ servings

Math @ Home Activity

-Give your child several sheets of paper. First, have your child fold one sheet of paper in half. Ask how many sections were created. Then have your child calculate how many sections there would be if a given number of sheets of paper, such as 5, 6, or 7, were folded the same way. Repeat the activity with different numbers of sections.

Lesson 11-4 • Reinforce Understanding

Divide Whole Numbers by Unit Fractions

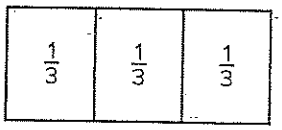
Name _____

Review

To divide whole numbers by unit fractions, you can check your work using a related multiplication equation.

Consider $13 \div \frac{1}{3}$.

There are 3 thirds in 1 unit .



This means there are

$13 \times 3 = 39$ thirds in 13.

To check your work, use the equation $39 \times \frac{1}{3}$.

$$39 \times \frac{1}{3} = 13$$

Therefore, $13 \div \frac{1}{3} = 39$.

What is the quotient? Use a related multiplication equation to check your answer. Show your work.

1. $10 \div \frac{1}{8} =$ _____

2. $5 \div \frac{1}{3} =$ _____

3. $7 \div \frac{1}{4} =$ _____

4. $9 \div \frac{1}{10} =$ _____

5. $15 \div \frac{1}{5} =$ _____

6. $12 \div \frac{1}{7} =$ _____

7. How many quarter-cups are in 1 cup of flour?

8. How many slices are in 3 pies, if each slice is $\frac{1}{8}$ of a pie?

Lesson 11-4

Additional Practice

Name _____

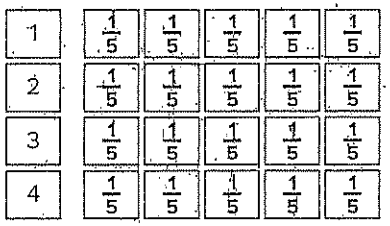
Review

You can use multiplication to find the quotient of a whole number divided by a unit fraction.

A baker has a 4-pound bag of flour. A recipe uses $\frac{1}{5}$ pound of flour. How many times can the baker make the recipe?

To solve, find $4 \div \frac{1}{5}$.

There are 5 $\frac{1}{5}$-pounds in each pound of flour.



So there are $4 \times 5 = 20$ $\frac{1}{5}$-pounds in 4 pounds.

The baker can make the recipe 20 times.

What is the quotient?

1. $9 \div \frac{1}{8} =$ _____

2. $11 \div \frac{1}{5} =$ _____

3. $6 \div \frac{1}{4} =$ _____

4. $5 \div \frac{1}{6} =$ _____

5. $3 \div \frac{1}{2} =$ _____

6. $8 \div \frac{1}{3} =$ _____

7. A large bag of granola weighs 6 pounds. If smaller bags are made that each contain $\frac{1}{8}$ pound of granola, how many smaller bags can be filled?

_____ smaller bags

8. A watermelon weighs 7 pounds. Slices are cut so that each piece weighs $\frac{1}{4}$ pound. How many slices are cut from the watermelon?

_____ slices

9. Rosita's garden is 8 yards long. She plants a row of flowers in her garden. She plants each flower $\frac{1}{3}$ yard apart. How many flowers does Rosita plant?

_____ flowers

10. Winnie has 9 apples. She cuts each apple so that each slice is $\frac{1}{5}$ of the apple. How many apple slices does Winnie have?

_____ slices

Math @ Home Activity

Write the numbers 2 through 12 on separate index cards. Next write the unit fractions with denominators 2 through 10 on separate index cards. Place the whole-number cards and the fraction cards in two separate piles and have your child randomly select a card from each pile. Then have your child divide the whole number by the fraction. Repeat the activity, putting the cards back into their respective piles each time.

Plants Are Producers

Cross-Curricular Focus: History/Life Science

People are consumers. We have to spend large parts of our days finding, buying, cooking and eating our food. Did you ever think it might be nice to be able to make your own food like plants do? Plants are producers and perform a process called **photosynthesis** using light from the sun, water and carbon dioxide. Carbon dioxide is the gas we exhale when we breathe. The end result of this chemical reaction is sugar for the plant to "eat." The plant releases water and oxygen, a gas all animals need to breathe, into the air.

So how do plants do it, and why can't we? Plants have special structures called **chloroplasts** that animals don't have. Chloroplasts are round, flat organelles that are arranged in stacks called **grana.** These stacks are filled with chlorophyll. **Chlorophyll** is what gives leafy green plants their green color. Their main job is to absorb light from the sun. Chloroplasts can absorb every color except green. Light activates the chlorophyll. It creates an energy that splits molecules of water, separating them out into hydrogen and oxygen. Chemical reactions take place. Hydrogen from the water combines with carbon from the carbon dioxide we breathe out. Oxygen is released into the air.

People and plants make perfect partners. Plants rely on the carbon dioxide that we breathe out, and we rely on the oxygen that they "breathe" out. This is one good reason for protecting plant life on Earth. Algae fields near the poles produce a constant supply of oxygen for us. So do the many plants of Earth's rainforests. We need plants in order to survive.

Conservation projects around the globe are aimed at protecting our natural resources, including numerous species of plants. Our quality of life and the very quality of the air we breathe depends upon our green plant partners.

Name: _____

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) Why are plants called producers?

_____

_____

2) Where do plants get their green color?

_____

_____

3) Explain the relationship between people and plants. Why are we good partners?

_____

_____

_____

4) What would happen if there were not enough plants on Earth? _____

_____

_____

5) What is a chloroplast?

_____

_____

Tissues, Organs, & Systems

Cross-Curricular Focus: Life Science

Name: _____

Multi-cellular organisms have many cells that work together in specific ways, each group performing certain functions. When each group does its part, the organism gets everything that it needs.

A **tissue** is a large group of cells that all have the same purpose or function. Each kind of cell has unique characteristics such as shape, size, flexibility, color and texture. Nerve cells combine with other nerve cells to make nerve tissue. Muscle cells combine with other muscle cells to make muscle tissue. Bone cells combine with other bone cells to make bone tissue and so on.

An **organ** is a group of tissues that work together to do a certain job for the body. Some of the human body's organs include the stomach, lungs, heart, kidneys, brain and liver. Some of a plant's organs include roots, stems, fruit and leaves.

When several different organs join to meet the organism's needs, they are working together in an organ **system**. There are several different organ systems constantly working in most multi-cellular organisms. You are probably familiar with some of the human body systems. The respiratory system includes the lungs and all the body parts that allow us to breathe in oxygen and exhale carbon dioxide. The circulatory system includes the heart and all the body parts that help move blood around the body. The blood, in turn, carries nutrients and oxygen to all the cells of the body. The respiratory and circulatory systems work very closely together. The digestive system helps the body get nutrients from food that is eaten, and store energy for future use. The excretory system helps remove waste products that would otherwise harm the body.

Each of the body's systems is necessary for the overall health of the body. As the body's building blocks, cells join to make tissues. Tissues join to make organs. Organs join to make systems. It's all arranged to ensure the organism's survival.

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) Which statement supports the fact that bone cells are smaller than bone tissue?

_____

_____

2) What is an organ? Give an example of an organ.

_____

_____

3) List two organ systems.

_____

_____

4) Which organ system do you think is the most interesting? Why? _____

_____

_____

5) Why is it necessary for the respiratory and circulatory systems to work together?

_____

_____