

5th Grade



Enrichment Package 2020



Name: _____



Learning Enrichment Booklet Project for Grade K, 1, 2, 3, 4, & 5

Spring 2020

Dear Parents and Caregivers,

The OU BOCES Instructional Specialists have assembled ELA and Math Enrichment booklets for grades K, 1, 2, 3, 4, and 5 based on resources developed by NYSED and by OU BOCES. With the NYS Next Generation Standards in mind, we selected ELA and Math focused activities. We made an effort to choose reading passages that address social studies and science learning standards as well. It was our goal to offer learning and review tasks that students who are on grade level could do fairly independently. Fourteen days of learning enrichment are provided for each grade level in case school is closed for health and safety reasons.

In order to complete the work in this booklet one only needs a pencil or pen. We have tried to include types of activities that should seem familiar to your child. We believe that each section could be completed within one day. Please help your child pace themselves. This booklet is designed to be completed over 14 days. One section of activities per day should feel comfortable for most students. If a child cannot complete a full section in day, he or she can do part of a section. As educators, we believe it is important to do some academic work each day.

Sincerely,

The Instructional Support Services Team

Dear Students,

We hope you find these activities interesting. We hope they help you keep your school skills sharp. Each section is designed for one day. If you have trouble finishing a section, ask an adult or friend for help. Please do your best work. Thank you for working on this enrichment book and practicing your academic skills and knowledge. Please also make time to read while you are home.

Sincerely,

The Instructional Support Services Team

Section 1



Grade 5 Enrichment Packet

Resources

Grade 5 Mathematics Reference Sheet

CONVERSIONS

1 mile = 5,280 feet

1 mile = 1,760 yards

1 pound = 16 ounces

1 ton = 2,000 pounds

1 cup = 8 fluid ounces

1 pint = 2 cups

1 quart = 2 pints

1 gallon = 4 quarts

1 liter = 1,000 cubic centimeters

FORMULAS

Right Rectangular Prism

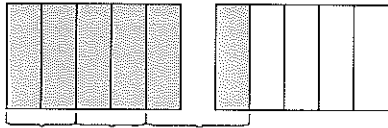
$$V = Bh \text{ or } V = lwh$$

Place Value Chart

1,000,000	100,000	10,000	1,000	100	10	1	.	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	.	Tenths	Hundredths	Thousandths
							.			

Day 1

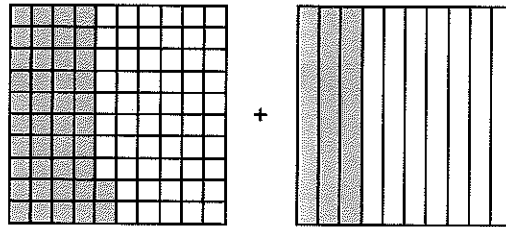
1. The model below is shaded to represent an expression. Which expression represents the model?



- A. $\frac{1}{3} \times \frac{2}{5}$ B. $\frac{1}{3} \times \frac{5}{2}$ C. $3 \times \frac{2}{5}$ D. $3 \times \frac{5}{2}$

2. What is the sum of $\frac{2}{10} + \frac{6}{100}$? Draw a diagram to justify your answer.

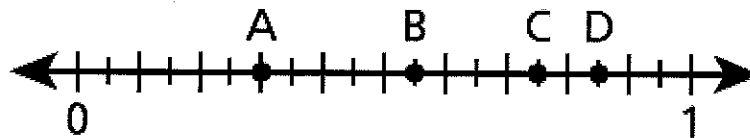
3. The shaded parts of the models below represent fractions. What is the sum of the fractions?



- A. $\frac{45}{110}$ B. $\frac{65}{110}$ C. $\frac{70}{100}$ D. $\frac{72}{100}$

4. Which point on the number line below represents a value of 0.75?

A. point A B. point B C. point C D. point D



5. Mr. Smith has 1,104 student photos to display around the school. He plans to put them on 48 poster boards with the same number of photos on each poster board. How many student photos will Mr. Smith place on each poster board?

- A. 20 B. 22 C. 23 D. 24

6. Jack puts $\frac{1}{3}$ pound of bird seed into his bird feeder every time he fills it. How many times can he fill the bird feeder with 4 pounds of bird seed?
- A. $1\frac{1}{3}$ B. $3\frac{2}{3}$ C. 11 D. 12
7. Which statement about rectangles and rhombuses is always true?
- A. Both figures are squares. B. Both figures are quadrilaterals.
C. Both figures have four right angles. D. Both figures have four congruent sides.
8. What is 482.073 expressed in word form?
- A. four eighty-two and seventy-three thousandths
B. four hundred eighty-two thousand seventy-three
C. four hundred eighty-two and seventy-three hundredths
D. four hundred eighty-two and seventy-three thousandths
9. A school librarian ordered new books for the library. Of the new books ordered, $\frac{1}{3}$ are science, $\frac{2}{5}$ are biography, and the rest of the books are fiction. What fraction of the books are fiction?
- A. $\frac{3}{5}$ B. $\frac{3}{8}$ C. $\frac{4}{15}$ D. $\frac{11}{15}$
10. Diane has pizza dough for making pizzas. She separates the dough into the three portions listed below.

Portion A is 8.25 ounces.

Portion B is twice as much as portion A.

Portion C is twice as much as portion B.

What is the weight, in ounces, of portion B and the weight, in ounces, of portion C?
Show your work.

Directions
Read this story. Then answer question 1.

Excerpt from *Bloomability*

by Sharon Creech

- 1 Lila and Guthrie were in two classes together. I didn't have any classes with her, and only one with Guthrie. Often I saw them walking together after class, and what surprised me was that Guthrie was usually doing the talking while Lila listened. When I was with Lila, she talked—or complained—and I listened.
- 2 And sometimes when I was listening, I'd think of things my sister Stella had said. Stella had kept a journal of all the places we'd lived and had recorded things she'd learned in each town. There was one whole page from when we lived in Ohio, about how to take a bus. In Indiana, she wrote: *Don't talk. Just listen.*
- 3 "What does that mean?" I asked her. "Why not talk?"
- 4 "Because people will laugh at your accent. Just listen. Wait and see how people talk and then talk like them."
- 5 In Oklahoma, Stella wrote, *Expect the worst.*
- 6 "Why?" I asked. "Why expect the worst?"
- 7 "Because then," Stella said, "you'll be prepared. You won't be caught off guard."
- 8 I figured that because Stella was older, she knew what she was talking about, and I followed her advice. I listened, and I expected the worst, most of the time.
- 9 In Oregon she wrote, *Dress plain the first day.*
- 10 "Why?" I asked.
- 11 "Because if you wear cowboy boots in Oregon, people are going to laugh at you. Wait and see what people wear, and then dress like them."
- 12 My mother overheard this. She said, "Stella! What a boring way to live. Don't you want to be different from everybody else?"
- 13 "No, I do not," Stella said. "I want to be the same."

- 14 Sometimes I wanted to be the same, because then you'd have friends, and you wouldn't be just the new kid, but inside, deep inside my bubble, I also wanted to be different. I wanted to be interesting, but I didn't know how you got to be interesting.
- 15 Guthrie was different and he was interesting, and so was Lila. What I liked about them was that Guthrie was complete Guthrie through and through, and Lila was Lila through and through.
- 16 Guthrie was like no one else. He'd be walking down the hill and all of a sudden, he'd shout "*Sono libero!*" (I am free!) He pronounced *libero* like this: *LEE-bear-oh*. "*Libero, libero, liberoooooo!*"
- 17 He'd dive into the pool and shout, "*Fantastico!*" People liked being around him because when you were around him, you were happy, and you felt as if you could do anything he could do.
- 18 Lila was different in other ways, in ways that made people hate her much of the time. But what I thought was interesting about her was that she was always Lila. She knew what she thought and she wasn't afraid to say what she thought, even if it was wrong or stupid or mean, although she herself never thought that what she said was wrong or stupid or mean. She thought that she was right and that everyone else was wrong, and she didn't seem to care if she had friends or not.
- 19 I'd always felt as if I were in a sort of suspension, waiting to see how things worked, waiting to see who I was and what sort of life I might lead, and then moving on to a new town before I could figure out any of those things. Lila and Guthrie, though, seemed to already know who they were and they were already living their lives.
- 20 Sometimes Lila would say, "I'm the kind of person who—" and she'd finish that sentence in various ways: "I'm the kind of person who needs a room of my own"; and "I'm the kind of person who needs to talk about my feelings"; and "I'm the kind of person who has to have time to think." And every time she'd say something like this, I'd wonder how she came to know what kind of person she was.
- 21 I felt like Miss Average. I was neither tall nor short, neither chubby nor slim. People often said I had nice eyes, but no one knew what color they were. "Are those hazel? Brownish? Gray? What color is that, anyway?" Teachers often said I had "a sweet face," but when I looked in the mirror, it didn't look all that sweet to me. On my report cards, teachers usually wrote things like *Coming along* and *Satisfactory work* and *Very observant* and *Ought to speak up more*.
- 22 I was all jumbled up most places, but especially here in Switzerland because it didn't seem to be like any place I'd ever lived. This wasn't just another new town and this wasn't just another new school. Here everybody was from different places, not just me. Most of the people were new, not just me. Everybody had a different accent, not just me.

1

In “Excerpt from *Bloomability*,” what do paragraphs 15 through 17 show about Guthrie’s character? Use **two** details from the story to support your response.

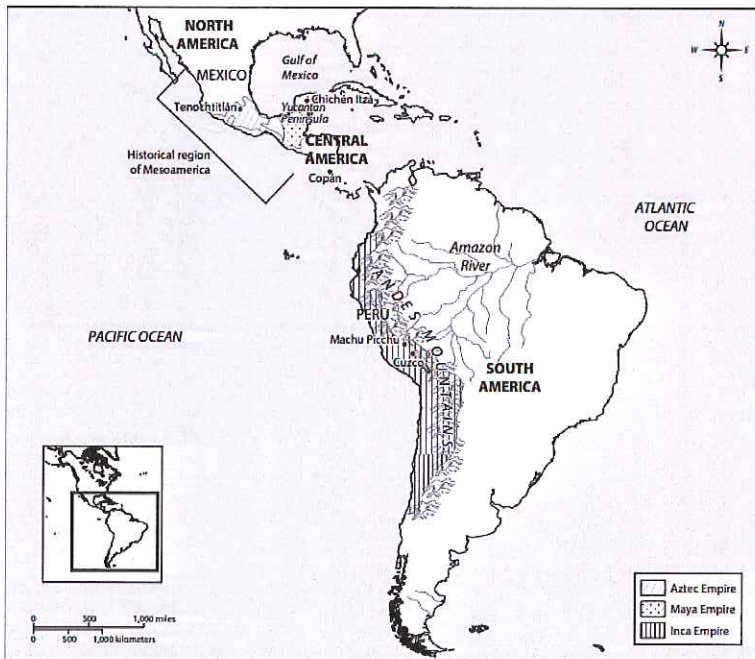
Section 2



Day 2

1. What is 15.74 rounded to the nearest whole number?
A. 10 B. 15 C. 16 D. 20
2. What is the value of the expression $\frac{1}{7} \div 5$?
A. $\frac{1}{12}$ B. $\frac{1}{35}$ C. $\frac{5}{7}$ D. $\frac{6}{7}$
3. A school raised a total of \$1,648 to purchase new books. The money raised will be shared equally among 8 different classrooms. What is the total amount of money each classroom will receive?
A. \$206 B. \$207 C. \$260 D. \$270
4. What statement describes the value of $67 \times \frac{1}{6}$?
A. The value is less than 67. B. The value is equal to 67
C. The value is greater than 67. D. the value is greater than 0 but less than 1.
5. Which expression can be used to represent 8 more than the product of 15 and 12?
A. $15 \times 12 + 8$ B. $(15 + 12) \times 8$ C. $15 \times 12 \times 8$ D. $15 \times (12 + 8)$
6. Marco bakes cookies for his class. He uses $\frac{3}{4}$ cup of butter in each batch of cookies and bakes $2\frac{1}{2}$ batches. Which equation can be used to determine the number of cups of butter Marco uses to bake cookies?
A. $\frac{5}{2} \times \frac{3}{4} = 1\frac{7}{8}$ B. $\frac{3}{2} \times \frac{3}{4} = 1\frac{1}{8}$ C. $\frac{5}{2} \times \frac{4}{3} = 3\frac{1}{3}$ D. $\frac{3}{2} \times \frac{3}{4} = 2$
7. What shape always has four congruent sides?
A. parallelogram B. rectangle C. rhombus D. trapezoid

8. A state fair has a heaviest pumpkin contest. The winning pumpkin weighed 2,050 pounds. What is the weight in ounces?
- A. 8,200 B. 16,400 C. 24,600 D. 32,800
9. Lyn's goal is to drink 8 cups of water every day. She drank 37 ounces of water before lunch today. How much more water does Lyn need to drink today to meet her goal?
- A. 27 ounces B. 29 ounces C. 59 ounces D. 91 ounces
10. Ursula drew a polygon in which all the angles were obtuse. What kind of polygon could she have drawn?
- A. trapezoid B. parallelogram C. triangle D. pentagon

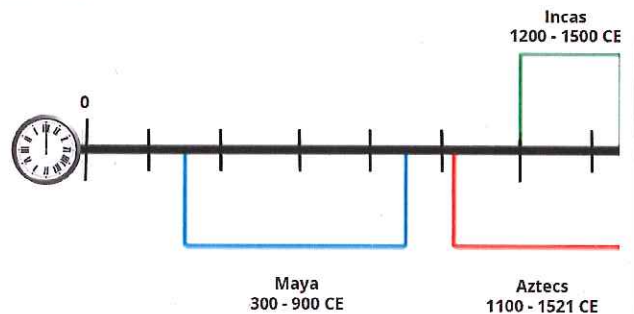


Geographic Reasoning

Civilizations in the Western Hemisphere

- ☐ Maya
- ☐ Aztecs
- ☐ Incas

Timeline



Use the map and timeline and your knowledge of social studies to answer the following questions and explain why you think your answer is correct.

1. Do you think the Maya and the Incas interacted with one another? _____

2. Which civilizations do you think might experience similarities in the environment that they live in? _____

3. What challenges do you think the Incas had because of the location and region in which they lived? _____

4. Which of the civilizations had control over the largest amount of territory and how do you know? _____

5. The territory known as Mesoamerica was the home to which civilizations listed on this map? _____

Section 3

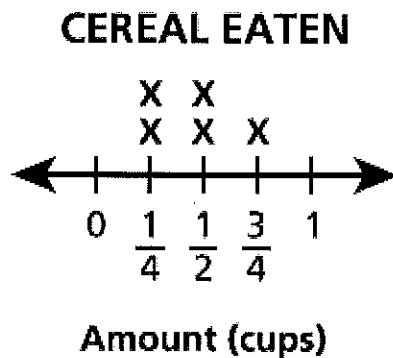


Day 3

1. On Saturday, Mark sold $2\frac{7}{8}$ gallons of lemonade. On the same day, Regan sold $\frac{2}{3}$ as much lemonade as Mark. How much lemonade, in gallons, did Regan sell?

A. $1\frac{5}{16}$ B. $1\frac{11}{12}$ C. $2\frac{7}{12}$ D. $4\frac{5}{16}$

2. The line plot below shows the amount of cereal Shyanne ate in 5 days. What is the total number of cups of cereal that Shyanne ate in the 5 days?



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

B. $1\frac{3}{4}$

C. $1\frac{4}{6}$

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

3. How does the value of the digit 2 in the number 32,000 compare with the value of the digit 2 in the number 26,000? Explain your answer.

4. Which expression has a value that is greater than 42.537?

A. $(4 \times 10) + (2 \times 1) + (5 \times \frac{1}{10}) + (9 \times \frac{1}{100}) + (3 \times \frac{1}{1000})$

B. $(4 \times 10) + (1 \times 1) + (6 \times \frac{1}{10}) + (2 \times \frac{1}{100}) + (5 \times \frac{1}{1000})$

C. $(4 \times 10) + (2 \times 1) + (5 \times \frac{1}{10}) + (3 \times \frac{1}{100}) + (7 \times \frac{1}{1000})$

D. $(4 \times 10) + (2 \times 1) + (5 \times \frac{1}{10}) + (1 \times \frac{1}{100}) + (9 \times \frac{1}{1000})$

5. Samantha will use a 2-liter pitcher to serve lemonade to 10 of her friends. How many times will she need to fill the pitcher in order to serve each friend 400 milliliters of lemonade? Show your work.

6. What part of the expression below should be calculated first?

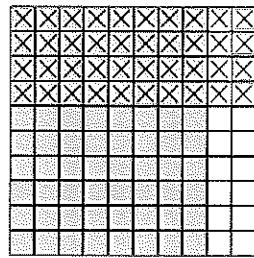
$$8 + \{22 \times [15 + (14 \times 2)]\}$$

- A. $8 + 22$ B. 22×15 C. 14×2 D. $15 + 14$

7. The value of the digit in the hundreds place in the number 653,841 is 10 the value of the digit in the thousands place in which number?

- A. 748,917 B. 749,817 C. 784,917 D. 797,481

8. The decimal grid shown below is shaded and marked with Xs to model an expression. Which expression could be modeled by this decimal grid?



- A. 0.08×0.04 B. 0.08×0.40 C. 0.80×0.04 D. 0.80×0.40

9. What is the value of the expression $\frac{1}{5} \div 4$?

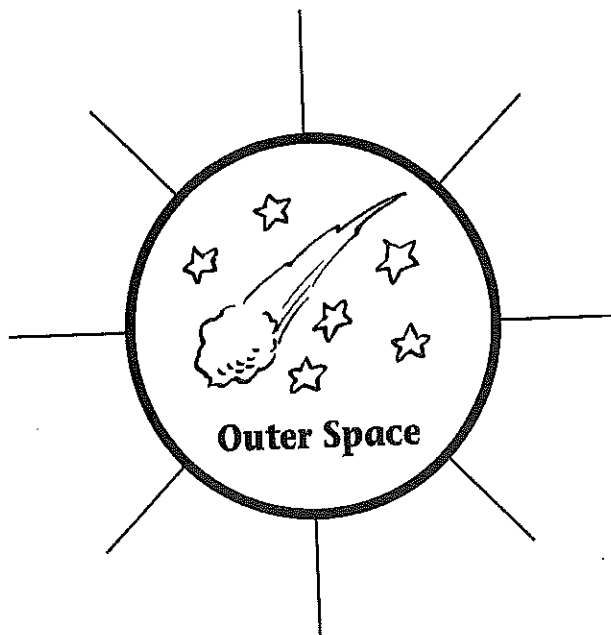
- A. $\frac{20}{1}$ B. $\frac{5}{4}$ C. $\frac{4}{5}$ D. $\frac{1}{20}$

10. Mia buys 5 yards of ribbon to make bracelets. She needs 18 inches of ribbon to make 1 bracelet. How many bracelets can Mia make if she uses all the ribbon she buys?

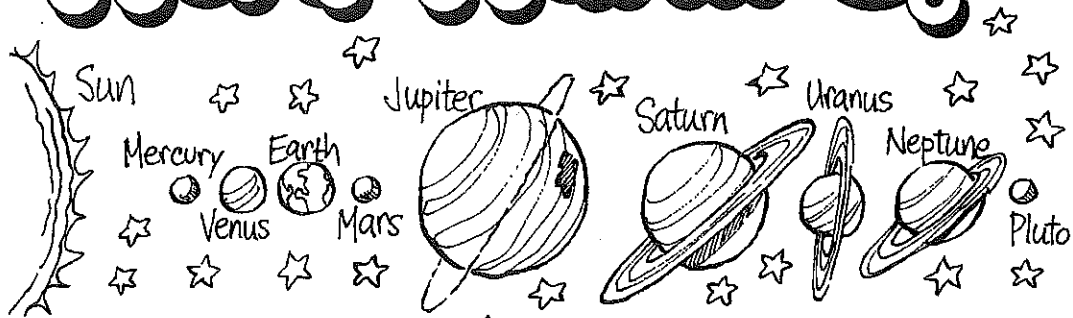
- A. 90 B. 10 C. 3 D. 2

Concept Map

Facts we already know about **outer space**, and the new facts we have learned



Word Warm-Up



Which words might you expect to find in a story about **outer space**?

galaxies

sand

astronomers

universe

immense

Frisbee®

bodies

meteors

gases

telescope

constellations

particles

Section 4



Day 4

1. What is the value of the expression $\frac{2}{5} + \frac{3}{7}$?

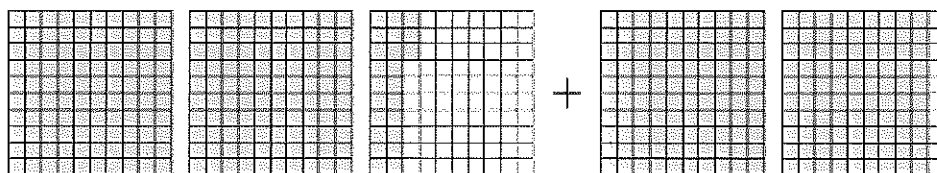
A. $\frac{5}{35}$ B. $\frac{6}{35}$ C. $\frac{5}{12}$ D. $\frac{29}{35}$

2. The operation symbol and the exponent are missing in the equation shown below. Which operation symbol and exponent should go in the boxes to make the equation true?

$$7,320 \square 10 \square = 0.07320$$

A. \times and 2 B. \div and 2 C. \times and 5 D. \div and 5

3. The decimal grids below are shaded to model an expression. What is the value of the expression modeled by the decimal grids?



A. 3.29 B. 3.32 C. 4.10 D. 4.13

4. Which measurement is equivalent to 4,000 centimeters?

A. 4 meters B. 40 meters C. 400 meters D. 40,00 meters

5. Which situation can be represented by $\frac{1}{4} \div 3$?

A. $\frac{1}{4}$ a package of pencils shared equally among three friends
 B. the number of $\frac{1}{4}$ cup servings in three cups of popcorn
 C. $\frac{1}{3}$ of a stadium split into 4 equal sections
 D. a four-foot rope cut into $\frac{1}{3}$ -foot pieces

6. Which expression is equivalent to $\frac{3}{5}$?

A. 3×5 B. $3 + 5$ C. $3 \div 5$ D. $3 - 5$

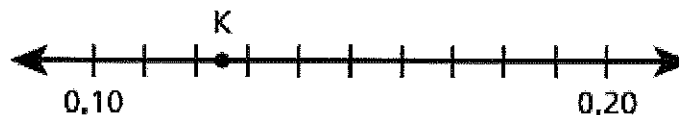
7. Each student in a class plays one of three sports: soccer, volleyball, or basketball. $\frac{3}{5}$ of the number of students play soccer and $\frac{1}{4}$ of the number of students play volleyball. What fraction of the number of students play basketball? Show your work.

8. Write a number in which the value of the digit 3 is 10 times the value of the digit 3 in 156.32. Explain how you know the number you wrote is correct.

9. What is the value of 0.1561 rounded to the nearest tenth?

A. 0.15 B. 0.16 C. 0.1 D. 0.2

10. Point K is shown on the below number line. Which number sentence best describes the value represented by point K?



A. $K > 0.13$ B. $K < 0.13$ C. $K = 0.15$ D. $K = 0.35$

Directions

Read this article. Then answer questions 1 through 7.

Excerpt from *Snowflake Bentley*

by Jacqueline Briggs Martin

- 1 In the days when farmers worked with ox and sled and cut the dark with lantern light, there lived a boy who loved snow more than anything in the world. Willie Bentley's happiest days were snowstorm days. He watched snowflakes on his mittens, on the dried grass of Vermont farm fields, on the dark metal handle of the barn door. He said snow was as beautiful as butterflies, or apple blossoms.
- 2 He could net butterflies and show them to his older brother, Charlie. He could pick apple blossoms and take them to his mother. But he could not share snowflakes because he could not save them.
- 3 When his mother gave him an old microscope, he used it to look at flowers, raindrops, and blades of grass. Best of all, he used it to look at snow. While other children built forts and pelted snowballs at roosting crows, Willie was catching snowflakes. Day after stormy day he studied the icy crystals.
- 4 Their intricate patterns were even more beautiful than he had imagined. He expected to find whole flakes that were the same, that were copies of each other. But he never did. Willie decided he must find a way to save snowflakes so others could see their wonderful designs. For three winters he tried drawing snow crystals. They always melted before he could finish.
- 5 When he was sixteen, Willie read of a camera with its own microscope. "If I had that camera I could photograph snowflakes," he told his mother. Willie's mother knew that he would not be happy until he could share what he had seen.
- 6 "Fussing with snow is just foolishness," his father said. Still, he loved his son. When Willie was seventeen his parents spent their savings and bought the camera. It was taller than a newborn calf, and cost as much as his father's herd of ten cows. Willie was sure it was the best of all cameras.
- 7 Even so his first pictures were failures—no better than shadows. Yet he would not quit. Mistake by mistake, snowflake by snowflake, Willie worked through every storm. Winter ended, the snow melted, and he had no good pictures. He waited for another

season of snow. One day, in the second winter, he tried a new experiment. And it worked! Willie had figured out how to photograph snowflakes! "Now everyone can see the great beauty in a tiny crystal," he said.

- 8 But in those days, no one cared. Neighbors laughed at the idea of photographing snow. "Snow in Vermont is as common as dirt," they said. "We don't need pictures." Willie said the photographs would be his gift to the world. While other farmers sat by the fire or rode to town with horse and sleigh, Willie studied snowstorms. He stood at the shed door and held out a black tray to catch the flakes.
- 9 When he found only jumbled, broken crystals, he brushed the tray clean with a turkey feather and held it out again. He waited hours for just the right crystal and didn't notice the cold. If the shed were warm the snow would melt. If he breathed on the black tray the snow would melt. If he twitched a muscle as he held the snow crystal on the long wood pick the snowflake would break. He had to work fast or the snowflake would evaporate before he could slide it into place and take its picture. Some winters he was able to make only a few dozen good pictures. Some winters he made hundreds. . . .
- 10 But his snow crystal pictures were always his favorites. He gave copies away or sold them for a few cents. He made special pictures as gifts for birthdays. He held evening slide shows on the lawns of his friends. Children and adults sat on the grass and watched while Willie projected his slides onto a sheet hung over a clothesline.
- 11 He wrote about snow and published his pictures in magazines. He gave speeches about snow to faraway scholars and neighborhood skywatchers. "You are doing great work," said a professor from Wisconsin. The little farmer came to be known as the world's expert on snow, "the Snowflake Man." But he never grew rich. He spent every penny on his pictures. Willie said there were treasures in snow. "I can't afford to miss a single snowstorm," he told a friend. "I never know when I will find some wonderful prize."

1. Read this sentence from paragraph 1 of the article.

In the days when farmers worked with ox and sled and cut the dark with lantern light, there lived a boy who loved snow more than anything in the world.

How does the author's word choice in the sentence affect the meaning of the passage?

- A. by suggesting that the ideas in the passage are made up
- B. by showing that the subject of the passage became famous
- C. by suggesting that the topic of the passage is familiar
- D. by showing that the events in the passage happened long ago

2. What is the meaning of the word "pelted" as it is used in paragraph 3?

- A. created
- B. found
- C. saved
- D. threw

3. Which quotation best supports a main idea of the article?

- A. "He expected to find whole flakes that were the same...(paragraph 4)
- B. "'Fussing with snow is just foolishness,' his father said." (paragraph 6)
- C. "Even so his first pictures were failures..."(paragraph 7)
- D. "'Now everyone can see the great beauty in a tiny crystal,' he said" (paragraph 7)

4. What does the information in paragraph 9 suggest about the author's point of view?

- A. The author believes that Bentley could have been more careful.
- B. The author respects Bentley's many different interests.
- C. The author admires Bentley's dedication.
- D. The author questions the methods Bentley used.

5. Which statement is true based on the information in paragraph 6 and 11?

- A. Bentley's work with snow required expensive equipment that he was willing to spend all his money on.
- B. Bentley was thought to be foolish throughout his life because of his interest in snow.
- C. Bentley's parents thought he should do something with his life other than taking pictures of snow.
- D. Bentley became less interested in studying snow than in publishing pictures and giving speeches.

6. What does the reader learn about Bentley from paragraphs 10 and 11?

- A. He was more interested in sharing his work than in making money from it.
- B. He worked hard to develop a way of making photographs of snowflakes.
- C. He wanted to find out if all snowflakes were different from each other.
- D. He was able to follow his interests because of the help he got from his family.

7. Which sentence best describes how the article is organized?

- A. The reasons for Willie Bentley's experiments with snow are presented, followed by their eventual conclusions.
- B. The events of Willie Bentley's life and his study of snow are described as they happened over time.
- C. The different problems of photographing snow are explained and then Willie Bentley's solutions are described.
- D. The important ideas about snow in Willie Bentley's discoveries are presented, followed by details and examples.

Section 5



Day 5

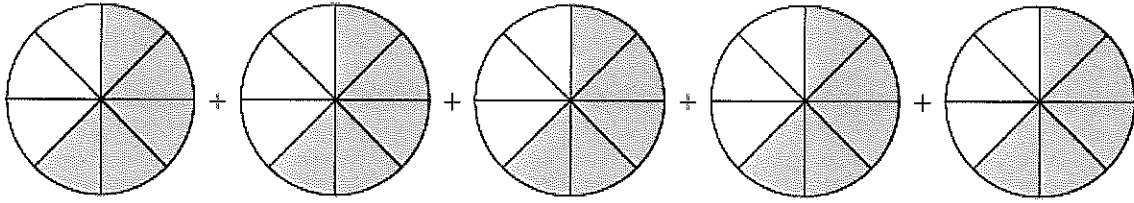
- How many $\frac{1}{3}$ cup servings are in 4 cups?
A. $\frac{1}{12}$ B. $\frac{3}{4}$ C. 4 D. 12
- For which values of K, would the product of $\frac{K}{3} \times 12$ be bigger than 12?
A. for any value of K less than 1 but greater than 0
B. for any value of K less than 3 but greater than 1
C. for any value of K greater than 3
D. for any value of K equal to 3
- The table below shows the distance some players hit a softball. Pablo hit the softball 2 yards. Which player or players hit the softball the same distance as Pablo?

SOFTBALL DISTANCES

Name	Distance
Amalia	36 inches
Nick	6 feet
Lila	108 inches

- A. Amalia only B. Nick only C. Lila only D. Amalia and Nick
- What is the decimal equivalence of $\frac{73}{100}$?
A. 0.73 B. 7.30 C. 73.100 D. 100.73
 - Each day last week, Ms. Wilson walked $\frac{3}{4}$ of a mile. What is the total distance, in miles, that she walked in 4 days?
A. 1 B. 2 C. 3 D. 4
 - During a hike, 3 friends equally shared $\frac{1}{2}$ pound of trail mix. What amount of trail mix, in pounds, did each friend receive?
A. $\frac{1}{6}$ B. $\frac{3}{2}$ C. $3\frac{1}{2}$ D. 6

7. Write an expression that can represent the shaded parts of the model below.

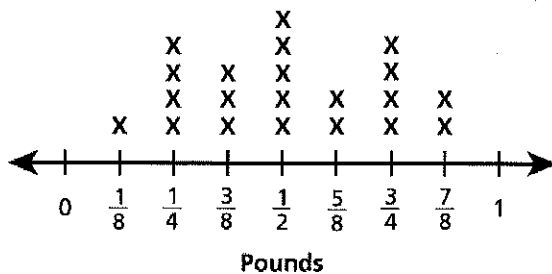


8. Mark and his friends order two pizzas of the same size.
- The first pizza is cut into 6 slices of equal size.
 - The second pizza is cut into 4 slices of equal size.

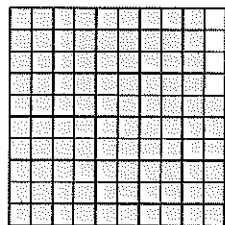
Each person plans to take 2 slices of pizza. Mark concludes that he would get more pizza by taking 1 slice from each pizza, instead of 2 slices from the first pizza. Explain why Mark is correct. Be sure to include a number comparison using $>$ or $<$ in your explanation.

9. A line plot shows the number of bags of grapes, grouped by weight, to the nearest $\frac{1}{8}$ of a pound. How many bags of grapes weighted $\frac{3}{8}$ of a pound or less?

WEIGHT OF BAGS OF GRAPES



10. Kia purchased books at a book fair. The shaded part of the decimal grid below represents the part of \$1.00 that she has remaining after purchasing her books. Kia decides to give all of the money she has remaining to her 3 friends so they can buy some bookmarks which cost \$0.10 each. If Kia gives each of her friends the same amount of money, what is the greatest number of bookmarks that each of her friends can buy? Show your work.



Aztec farming: connections to environment



What do you see?

What do you think?

What do you wonder?

Research notes on Aztec aquaculture:

Chinampas were a creative and productive approach to agriculture developed by the Aztec civilization. They consisted of a series of alternating canals and narrow artificial islands. All parts of the *chinampas* were used to produce food.

- The land was used to grow vegetables, trees, chickens, etc.
- The surface of the water was used to raise ducks and grow floating plants, such as lotuses.
- The middle of the water was used for fish and aquatic plants.
- The bottom of the water was used for prawns, catfish, etc.
- The edge between the water and the land was used to grow reeds, taro, typha (as chicken feed), etc.
- Vines above the water were used to grow grapes, strawberries, and other vine fruits while shading the water.

Each part of the *chinampas* worked with the other. The vines dropped nutrients into the water. The water provided nutrients for reed crops, which in turn fed land-based animals.

Aztec *chinampas* were fertilized with compost and with mud brought up from the bottom of the lake. The water flowing around the island created a microclimate in which extremes of temperature were mitigated (made less severe).

Use the research notes and your ideas to write a paragraph describing why and how the Aztecs were creatively using their environment to feed their population.

[illegible]

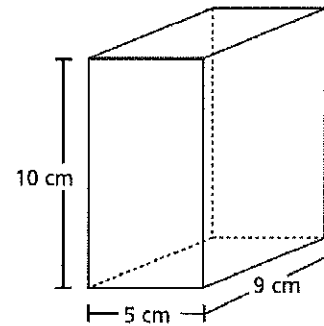
Section 6



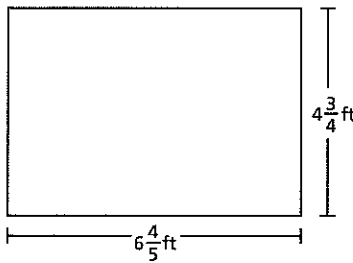
Day 6

1. A gift box is in the shape of a right rectangular prism, as pictured below. What is the volume, in cubic centimeters, of the gift box?

A. 24 B. 45 C. 225 D. 450



2. What is the area, in square feet, of the rectangle shown below?



A. $11\frac{11}{20}$

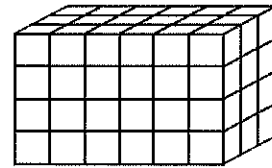
B. $24\frac{12}{20}$

C. $27\frac{4}{20}$

D. $32\frac{6}{20}$

3. Which expression cannot be used to determine the volume of the rectangular prism pictured below?

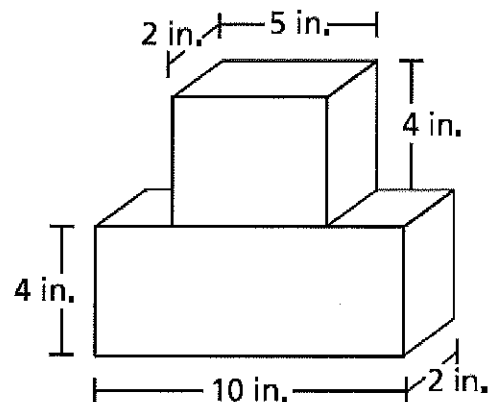
A. 12×6 B. 18×4 C. $6 \times 3 \times 4$ D. $6 \times 4 \times 6$



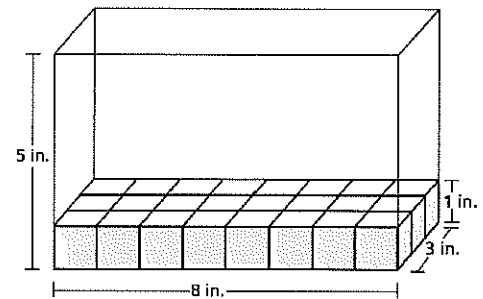
4. Cole has a rectangular garden with an area of 16.02 square meters. The length of the garden is 4.5 meters. What is the width, in meters, of the garden?
- A. 3.56 B. 11.52 C. 16.12 D. 20.52

5. Lana used the two blocks pictured in the diagram to build a tower. What is the total volume, in cubic inches, of the tower Lana built?

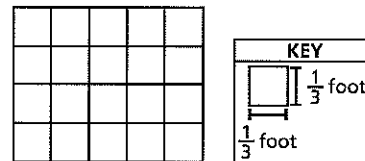
A. 27 B. 80 C. 116 D. 120



6. The diagram below shows some 1-inch cubes placed in a box. How many more 1-inch cubes are needed to completely fill the box?
- A. 16 B. 24 C. 96 D. 120

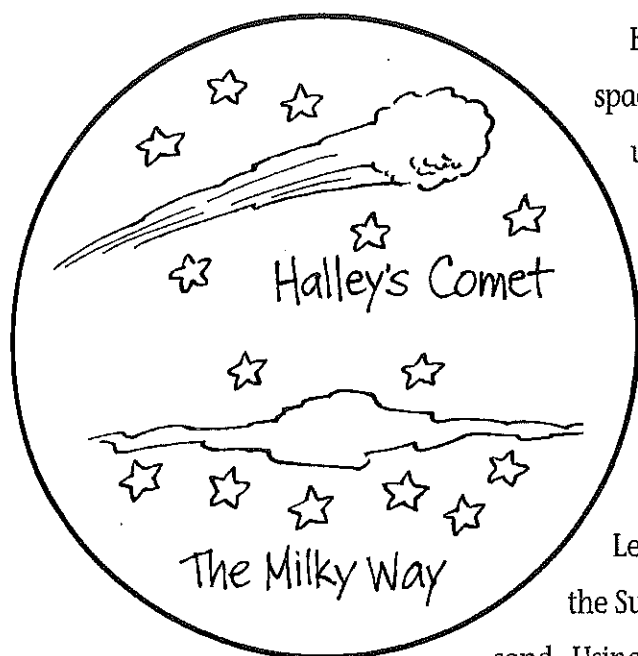


7. The volume of a single layer in a rectangular prism is 18 cubic centimeters. There are 5 layers in this rectangular prism. What is the volume of this rectangular prism in cubic centimeters?
- A. 3.6 B. 13 C. 23 D. 90
8. A section of a rectangular floor is covered with square floor tiles as shown below. Each square has side length of $\frac{1}{3}$. What is the area, in square feet, of the section of the floor covered with floor tiles? SHOW YOUR WORK.



9. Chris is making a tabletop from some leftover tiles. He has 9 tiles that measure $3\frac{1}{8}$ inches long and $2\frac{3}{4}$ inches wide. What is the greatest area he can cover with these tiles? Draw a diagram and SHOW YOUR WORK.
10. Miguel and Ivan built towers out of craft sticks. Miguel's tower had a 4-inch square base. Ivan's tower had a 6-inch square base. If Miguel's tower had a volume of 128 cubic inches and Ivan's had a volume of 288 cubic inches, whose tower was taller? Show all work and explain your reasoning.

Outer Space



Have you ever wondered what is really in outer space? What exactly is the universe? The word universe is used to refer to all of outer space.

Astronomers have studied space for many years, but they still have more questions than answers.

No one knows just how large our universe really is. We do know that the universe is immense and the distances between objects are tremendous. But how far is "far away"? Let's give it a try. Imagine that the distance between the Sun and the Earth is equal to the size of one grain of sand. Using this size as a comparison, then the planet we call

Pluto would be 30 feet (9.15 m) away. The closest star beyond the Sun, called Alpha Centauri, would be 50 miles (80.5 km) away. This makes it easier to understand just how far away things in outer space really are.

However, astronomers prefer to use the term "light-years" to measure distances from Earth. A light-year describes how far light can travel in one year. Astronomers chose light as a reference point because it travels faster than anything else does. In fact, if you shined a beam of light all the way around the world, it could go around $7\frac{1}{2}$ times in one second! Now that is speedy traveling! Scientists guess that the universe is at least 10 billion light-years across, and it seems to be getting larger.

The universe is made up of a lot of empty space. Huge swirling masses of stars, called galaxies, are scattered throughout the universe. Each galaxy is made of billions of stars. Our solar system can be found within a galaxy, called the Milky Way. The Milky Way has a shape similar to a spinning Frisbee® but with a bigger bulge in the middle. Our solar system would be located out on one side of the Frisbee.

There are many different kinds of stars, some old and some new. Some stars are brighter than others. Stars that are the hottest appear white through a telescope. Stars that are not quite as hot appear yellow, like our Sun. Those stars that are even cooler will appear red in color. Stars are born,

grow older, and then die. They are constantly repeating this life cycle, even though they are not really alive. Have you ever looked for the Big Dipper or the Little Dipper in the sky at night? If you have, then you have looked for constellations. Constellations are patterns of stars that form a specific shape in the sky.

In between the stars, there are cloud-like shapes of gases and dust called nebulae. A single nebula can have almost any shape. Some nebulae do not give off any light. We can see some of them because they reflect the light of nearby stars. A star is born when the gases in these clouds condense enough for nuclear reactions to begin. A star is like a nuclear bomb inside of a very strong box. Instead of exploding all at once, imagine the box opening and closing, releasing the bomb's energy a little bit at a time, over a long period of time. That is what a star does. A star will continue to burn up its gases and give off heat and light for billions of years. It may end its life quietly by becoming a black dwarf (a very small star that emits no visible light) when it can no longer shine. Or, it may end in a supernova explosion (a very big, bright explosion).

In addition to planets and moons in our solar system, there are bodies known as comets, asteroids, and meteors. Comets are like dirty snowballs made of frozen gases, dust, and rock particles. They travel in long oblong orbits around the Sun. As they get closer to the Sun they become warmer and begin to melt. Sometimes a gas "tail" is formed from the melted gases. If you looked at a comet through a telescope, it would look like a fuzzy head with a long tail. You may have heard of Halley's Comet. This comet was named after Edmund Halley who predicted it would return. Maybe some day you could have a comet named after you!

Asteroids and meteors are also found in space. These are really just pieces of space "junk." They are made of bits of rock and metal. Asteroids are quite large and meteors are smaller. A meteor that enters the Earth's atmosphere at a high speed usually burns up. This kind of meteor is called a shooting star even though it is not really a star. It is called a meteorite if it lands on the ground.

Now you know the universe is enormous! It includes billions of galaxies, planets, moons, stars, meteors, comets, and so much more that is yet to be discovered. Astronomers will understand more about how stars are formed and how huge our universe really is one day. For now, we can all observe some of the amazing characteristics of outer space each night and leave the rest up to our imaginations and the scientists!

Outer Space Questions:

1. What is in our universe? Be specific.

2. Why do you think some stars are brighter than others?

3. Describe the similarities between the life span of a star and of a person.

Section 7



Day 7

1. Carlos makes 1 pound of snack mix using nuts, raisins, and cereal. The list below shows how many pounds of nuts and raisins he uses.

- $\frac{1}{3}$ pound of nuts
- $\frac{2}{5}$ pound of raisins

How much cereal, in pounds, does Carlos use?

- A. $\frac{3}{8}$ B. $\frac{5}{8}$ C. $\frac{4}{15}$ D. $\frac{11}{15}$

2. Which expression has a value greater than $\frac{1}{2}$?

- A. $\frac{1}{2} \times \frac{4}{5}$ B. $\frac{1}{2} \times \frac{4}{4}$ C. $\frac{1}{2} \times \frac{5}{5}$ D. $\frac{1}{2} \times \frac{5}{4}$

3. A science teacher has 0.4 liter of seawater. She gives each of her 22 students a container and a 5-milliliter spoon. She then asks her students to put two spoonfuls of seawater into their containers. How many milliliters of seawater will be left after all 22 students have filled their containers?

- A. 70 B. 180 C. 290 D. 780

4. Which phrase best describes a figure with dimensions of 2 units by 2 units by 4 units and a volume of 16 cubic units?

- A. a solid figure that can be filled with 16 cubes that each measure 1 cubic unit
B. a solid figure that can be filled with 1 cube that measures 16 units on each edge
C. a solid figure that can be covered with 16 squares that each measure 1 square unit
D. a solid figure that can be covered with 1 square that measures 16 units on each edge

5. Susan determined that the expression $15.91 - 8.32$ is equal to 7.59. Which expression can Susan use to check her answer?

- A. $8.32 - 7.59$ B. $8.32 + 7.59$ C. $15.91 + 8.32$ D. $15.91 + 7.59$

6. Harry's fitness trainer recommends that Harry drink 8 fluid ounces of water 8 times a day. Harry has a water bottle that holds 11 pints of water when filled. Today, he has filled the water bottle three times and drank all of the water each time. Harry claims that he drank the total amount of water recommended by his fitness trainer. Explain why Harry's claim is not true.
7. Rodney bought a 25-pound bag of dog food. His dog ate $10\frac{2}{5}$ pounds of food in the first month and $10\frac{4}{5}$ pounds of food in the second month. How much dog food, in pounds, was remaining in the bag at the end of the two months? Show your work.
8. Sixteen students in a drama club want to attend a play. The ticket price is \$35 for each student and the transportation and meals for everyone will cost \$960. To pay for the trip, the students design sweatshirts to sell for a profit of \$19 per sweatshirt. If each student sells the same number of sweatshirts, how many sweatshirts must each student sell so that there will be enough money to pay for the entire cost of the trip? Show your work.
9. Jessie set up a lemonade stand for three days. On Saturday she sold $10\frac{2}{3}$ gallons of lemonade. On Sunday she sold $3\frac{1}{3}$ gallons more than she sold on Saturday. On Monday she sold $2\frac{2}{3}$ gallons less than she sold on Sunday. How many gallons of lemonade did Jessie sell on Monday? Show your work.
10. Three students performed a science experiment using salt and a beaker. The beaker contained 530.2 grams of salt before the experiment started. During the experiment, each of the 3 students removed 47.36 grams of salt from the beaker. How much salt, in grams, was left in the beaker at the end of the experiment? Show your work.

Directions

Read this article. Then answer questions 1 through 3.

Excerpt from *Wackiest White House Pets*

by Gibbs Davis

MOST SUSPICIOUS

- 1 John F. Kennedy was the youngest man ever elected president. The popular president and his stylish wife, Jackie, captivated the nation. During Kennedy's brief time in office he launched the space race. He also founded the Peace Corps to aid developing countries. Americans were fighting for their civil rights at home while the Cold War continued abroad.
- 2 During the Cold War, the Soviet Union and the United States didn't trust each other. The United States suspected everything that came from the Communist Soviet Union. Spies were everywhere. So when the president's daughter, Caroline, received a little dog from Soviet Premier Nikita Khrushchev, everyone was suspicious.
- 3 The little white dog was named Pushinka. (Pushinka means "fluffy" in Russian.) Pushinka was already a celebrity. Her mother, Strelka ("little arrow"), had been one of the first dogs sent into space. The Secret Service agents were suspicious of the fluffy little white dog. Was she a spy, too? The Russian dog didn't have fleas. But did she have other bugs? Pushinka was checked for secret microphones and spying devices. She passed the test with flying colors.
- 4 When Pushinka first saw the Kennedys' Welsh terrier, Charlie, it was puppy love. Soon, they had four pups. President Kennedy called them "pupniks."
- 5 The Kennedys received another unusual pet. This one was from a magician. It was a rabbit named Zsa Zsa. The talented bunny could play the first five bars of "The Star-Spangled Banner" on a toy golden trumpet!

BEST SWIMMER

- 6 Ronald Reagan was the oldest man ever elected president. He was also a former actor, appearing in over fifty films. Fearful of Communism, the president spent millions

of dollars building up the military.

7 Everyone has a fish story. But only one president had a First Fish.

8 Reagan was recovering from an assassination attempt when he received something fishy in the mail. A ten-year-old boy had sent the president a goldfish in a plastic bag filled with water!

9 It didn't take long for the First Fish to get into the swim of things. The tiny White House resident was given a place of honor in a tank bearing the presidential seal.

10 Like the First Fish, the president was a powerful swimmer. As a young man, Reagan worked as a lifeguard during summer vacations on the Rock River in Illinois. He put a notch in a log every time he saved a person from drowning. In seven summers as a lifeguard, he made seventy-seven notches.

11 First Families often complain that living in the White House is a lot like living in a fishbowl. This is one fish who would know.

BEST-SELLING PET

12 George Herbert Walker Bush's inauguration in 1989 marked the two hundredth anniversary of the U.S. presidency. There had been many dramatic changes since our first president was in office. During Bush's term, Americans saw the collapse of Soviet Communism. The late twentieth century was also a glorious time for White House pets.

13 President Bush's springer spaniel, Millie, was voted "Ugliest Dog" in the Capital by *Washingtonian* magazine. Millie wasn't going to let sleeping dogs lie. She put paw to paper and set the story straight about her life in the White House.

14 Millie dictated 141 pages of her best-selling "dogobiography" to former First Lady Barbara Bush. In it, the famous First Dog recalls her heavy White House schedule. She also describes sitting in on morning briefings, chasing squirrels, and playing in the White House flower beds. Not one to let fame go to her head, she didn't neglect her duties as First Dog. She also mothered six puppies while in office.

15 The president was grateful to Millie. The published pooch had given practically all of her first year's royalties (almost \$900,000) to the First Lady's favorite charity—the Barbara Bush Foundation for Family Literacy. Still, President Bush was a little jealous that the media hound got so much attention.

16 In *Millie's Book*, the spaniel writes, "I overheard the Bushes talking the other night. Some discussion about me keeping a lower profile."

- 17 Every First Pet knows when to let the president be top dog.

MORE WACKY PET FACTS

- 18 The number one presidential pet has always been the dog. (George Washington had almost forty). Some First Dogs have been more popular than their presidents. President Harding was regarded as one of the worst presidents ever, but his upstanding Airedale terrier, Laddie Boy, became a national celebrity. (He even had his own special chair to sit in at cabinet meetings.) President Franklin Roosevelt's beloved little black Scottie, Fala, became an international celebrity, joining FDR at important world peace-making meetings. He traveled abroad more than any other White House pet. Both top dogs received thousands of gifts, letters, and invitations from their fans.

“Excerpt from *Wackiest White House Pets*” Questions

1. In “Excerpt from *Wackiest White House Pets*,” what is the main idea of paragraphs 1 through 4? Use two details from the article to support your response.

2. Why does the author of “Excerpt from *Wackiest White House Pets*,” title the second section of the article “Best Swimmer”? Use two details from the article to support your response.

3. According to “Excerpt from *Wackiest White House Pets*” why was the late twentieth century a “glorious time for White House pets” (paragraph 12)? Use two details from the article to support your response.

Section 8



Day 8 Show your work.

1. Zaire is making granola bars. For one batch of bars, the recipe requires $1\frac{2}{3}$ cups of rolled oats, and $\frac{1}{2}$ cup raisins. What is the combined amount, in cups, of rolled oats and raisins that is used in one batch of granola bars? Show your work.
2. Draw to show how 2 children can equally share 3 cookies. Write an equation, and express your answer as a fraction.
3. A principal evenly distributes 6 reams of copy paper to 8 fifth-grade teachers. How many reams of paper does each fifth-grade teacher receive? Explain how you know using pictures, words, or numbers.
4. Mrs. Lang told her class that the class's pet hamster is one fourth of a foot in length. How long is the hamster in inches?
5. The Booster Club sells 240 cheeseburgers. $\frac{1}{4}$ of the cheeseburgers had pickles, $\frac{1}{2}$ of the remaining burgers had onions, and the rest had tomato. How many cheeseburgers had tomato?
6. At Yum-Yum Yogurt, the scale says that Sara has 8 ounces of vanilla yogurt in her cup. Her father's yogurt weighs 11 ounces. How many pounds of frozen yogurt did they buy altogether? Express your answer as a mixed number.
7. Ms. Scotto drinks 1 cup of milk every day for lunch. How many gallons of milk does she drink in 14 days?
8. Tasha eats half her snack and gives the other half to her two best friends for them to share equally. What portion of the whole snack does each friend get? Draw a picture to support your response.
9. Mr. Post 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?
10. Write a word problem that can be represented by the equation $\frac{3}{8} \div 5 = W$

Analyzing a picture: Look at the picture and answer the following questions.

Growing coffee in rural Columbia



Where is the picture taken?	
What are the people wearing?	
What is happening in the picture?	
What if anything, is surprising about the picture?	
How does the image make you feel or think about?	
What do you see in the background?	
What is the most noticeable feature of the picture?	

Section 9

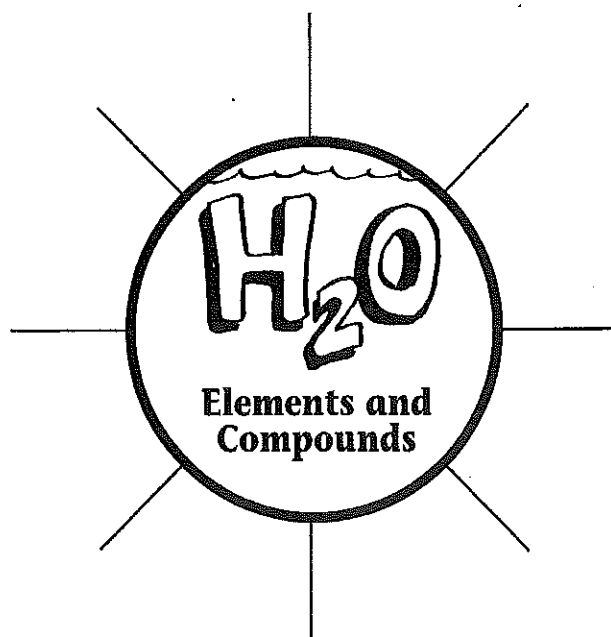


Day 9 Show your work.

1. In a science class, Paula made a mixture by adding 2.05 milliliters of hydrogen peroxide and 6.15 milliliters of water together. Equal amounts of the whole mixture were poured into 5 empty containers. How much of the mixture, in milliliters, did she pour into each container?
A. 0.61 B. 1.64 C. 3.2 D. 13.4
2. Mr. Pam has $\frac{1}{4}$ pan of lasagna left in the refrigerator. He wants to cut the lasagna into equal slices so he can have it for dinner for 3 nights. How much lasagna will he eat each night? Draw a picture to support your response.
3. For which of the following expressions would 200,000 be a reasonable estimate? Explain how you know.
A. $2,146 \times 12$ B. $21,467 \times 121$ C. $2,146 \times 121$ D. $21,477 \times 1,217$
4. Ralph wants to buy a new car. He needs a down payment of \$3,000. If he saves \$340 each month, about how many months will it take him to save the down payment?
5. A box contains 24 oranges. Mr. Lou ordered 8 boxes for his store and 12 boxes for his restaurant. Next week, he will double the number of boxes he orders. What is the number of oranges in next week's order?
6. Steven claims that $(14 + 12) \times (8 + 12)$ and $(14 \times 12) + (8 \times 12)$ are equivalent because they have the same digits and the same operations. Is he correct? How do you know?
7. The Spiderman School turns 101 years old in June. In order to celebrate, they ask each of the 23 classes to collect 101 items and make a collage. How many total items will be in the collage?
8. Farmer Brown feeds 12.1 kilograms of alfalfa to each of his 2 horses daily. How many kilograms of alfalfa will all his horses have eaten after 21 days?
9. A young snake measures 0.23 meters long. During the course of his lifetime, he will grow to be 13 times his current length. What will his length be when he is full grown?
10. General admission to The American Museum of Natural History is \$19. A group of 125 students visits the museum, If the group also purchases IMAX movie tickets for an additional \$4 per student, what is the new total cost of all the tickets?

Concept Map

Facts we already know about **elements and compounds**, and the new facts we have learned



Word Warm-Up

A B C D E F G H I J
 CO_2 dad NaCl feed H_2O head

Which words might you expect to find in a story about **elements and compounds**?

chemical

homework

molecule

material

symbols

Latin

compounds

ingredients

characteristics

formula

elements

rainbow

Section 10



Day 10 Show your work.

1. Martin is using unit cubes to build a tower in the shape of a right rectangular prism. The bottom layer is made of 16 unit cubes. The bottom layer is in the shape of a square prism. There are 9 more equal layers of unit cubes are added on top of the bottom layer. What is the total volume, in cubic units, of the completed tower? Show your work.
2. A microscope has a setting that magnifies an object so that it appears 100 times as large when viewed through the eyepiece. If a tiny insect is 0.095 cm long, how long will the insect appear in centimeters through the microscope? Explain how you know.
3. Terrence finished a word search in $\frac{3}{4}$ the time it took Frank. Charlotte finished the word search in $\frac{2}{3}$ the time it took Terrence. Frank finished the word search in 32 minutes. How long did it take Charlotte to finish the word search?
4. Farmer Brown feeds 12.1 kilograms of alfalfa to each of his 2 horses daily. How many kilograms of alfalfa will all his horses have eaten after 21 days? Show your work.
5. A gardener installed 42.6 meters of fencing in a week. He installed 13.45 meters on Monday and 9.5 meters on Tuesday. He installed the rest of the fence in equal lengths on Wednesday through Friday. How many meters of fencing did he install on each of the last three days?
6. A blue rope is three times as long as a red rope. A green rope is 5 times as long as the blue rope. If the total length of the three ropes is 508.25 meters, what is the length of the blue rope?
7. Clayton says that $2\frac{1}{2} + 3\frac{3}{5}$ will be more than 5 but less than 6 since $2 + 3$ is 5. Is Clayton's reasoning correct? Prove him right or wrong.
8. Andres completed a 5-km race in 13.5 minutes. His sister's time was $1\frac{1}{2}$ times longer than his time. How long, in minutes, did it take his sister to run the race?
9. Volunteers helped clean up 8.2 kg of trash in one neighborhood and $11\frac{1}{2}$ kg in another. They sent $1\frac{1}{4}$ kg to be recycled and threw the rest away. How many kilograms of trash did they throw away?
10. The length of the bar for a high jump competition must always be 4.75 m. Express this measurement in millimeters. Explain your thinking.

Directions

Read this story. Then answer questions 1 through 7.

Mrs. Majeska and the Lost Gloves

by Ethel Pochocki

- 1 One crisp fall morning, Mrs. Majeska woke up with a craving for sauerkraut. It was so strong, she could smell it, she could taste it, and she knew she must have it for supper. So she put on her walking shoes, picked up her tub with a lid and a handle, and went into town to buy some.

sauerkraut = chopped, pickled cabbage
--

- 2 She walked briskly, enjoying the wind messing up her hair and the parade of dried leaves dancing ahead of her. It was a glorious day, and the thought of sauerkraut for supper, with a bit of apple and onion and sausage, made her want to dance along with the leaves.
- 3 But suddenly she stopped. In the road there was a glove, a small black glove, the fingers still plump, as if it had just left its owner's hand. It was out of place in the middle of the road.
- 4 Poor thing, thought Mrs. Majeska. I cannot leave it there. She picked it up quickly—a logging truck was coming—and laid it on the grass. She felt sorry for its owner, who now had only one glove. What good was one glove?
- 5 On the way home from the store, she walked on the other side of the road, the sauerkraut sloshing inside the tub. A cluster of children came toward her, laughing and shouting to one another as they took turns kicking something in the dust. Finally they tired of it and ran off past Mrs. Majeska.
- 6 She looked down at the sorry thing they had been kicking. It was another black glove, of the same size and shape as the one she had rescued. She examined it—yes, it was the mate to the other!
- 7 Mrs. Majeska hesitated, then continued walking. It was only a glove, after all, not a child or a kitten or a wallet. Suddenly she stopped, turned around, and walked back to the crumpled bit of cloth. She picked it up, shook it out, and brushed off the dirt. It looked almost as good as new.

- 8 With the glove in one hand and the tub of sauerkraut in the other, she strode down the road to where the other glove still lay in the grass. She placed its mate beside it, satisfied that they were now together. For what good was one glove without the other?
- 9 A boy whizzed by on a bike and looked at her. Two old ladies, arm in arm, marched toward her on their way to the post office. Mrs. Majeska bent down and pretended to tie her shoelaces, for she felt foolish to be caught in the act of reuniting a pair of gloves.
- 10 That night, after a supper as delicious as she had imagined it, Mrs. Majeska sat in her rocker and thought about the gloves. She wished she had brought them home to use for herself. Their owner had probably already given them up for lost. The next morning, after she had her coffee and read the newspaper, she decided to go back and get the gloves. But they were gone.
- 11 Mrs. Majeska was mystified. Who—beside herself—would want a pair of gloves lying by the side of the road? Perhaps the owner had retraced her steps and rejoiced in finding them? Or maybe a housewife on a cleaning binge had used them to polish the stove? Or maybe a puppy needed something to chew on? Or a squirrel, to line its nest for winter?
- 12 Mrs. Majeska would never know, but as long as she did not know, she would believe in a happy ending. No matter what their fate, the gloves were together, and that was all that mattered.

1. In paragraph 2, what does the phrase “made her want to dance along with the leaves” most suggest about Mrs. Majeska?
 - A. She is ready to move along quickly to get home.
 - B. She remembers the words to a song in her head.
 - C. She likes the fall weather because it causes change.
 - D. She is happy because she is enjoying her day.
2. How do paragraphs 3 and 4 foreshadow the ending of the story?
 - A. by emphasizing that a single glove is of little use
 - B. by emphasizing that nobody cares about a lost glove
 - C. by showing that Mrs. Majeska is careful when picking up the glove
 - D. by showing that Mrs. Majeska is worried about the owner of the glove
3. Based on paragraphs 5 and 6, which sentence best contrasts Mrs. Majeska and the children?
 - A. Mrs. Majeska wants to clean the glove but the children do not.
 - B. Mrs. Majeska is sorry for the glove owner but the children are not.
 - C. Mrs. Majeska is happy to see the glove while the children are not.
 - D. Mrs. Majeska understands the value of the glove while the children do not.
4. Mrs. Majeska’s actions in paragraphs 7 and 8 most contribute to the development of the central idea by showing that she:
 - A. is content that the gloves are back together
 - B. considers taking the gloves home for herself
 - C. thinks she is silly for worrying about the gloves
 - D. cleans off the gloves to make them easy to find
5. What can the reader infer about Mrs. Majeska in paragraph 9?
 - A. She is nervous that the gloves will not be found by their owner.
 - B. She is concerned about what the boy and the two ladies think of her.
 - C. She is scared by the boy who is riding on the bike.
 - D. She is upset by the old ladies who walk past her.
6. Which word best describes Mrs. Majeska in paragraph 10?
 - A. proud
 - B. restless
 - C. stubborn
 - D. regretful
7. What does the point of view in paragraph 11 help the reader to understand?
 - A. An owner’s joy in finding the gloves
 - B. Mrs. Majeska’s concern that a puppy might chew the gloves
 - C. A housewife’s eagerness to put the gloves to use
 - D. Mrs. Majeska’s surprise that someone took the gloves

Section 11



Day 11 Show your work.

1. Joel has a goal to practice his clarinet for $4\frac{1}{2}$ hours per week. The list below shows the number of hours Joel has practiced so far this week.

Monday $1\frac{1}{2}$ hours

Wednesday $1\frac{1}{4}$ hours

Thursday 1 hour

How many more hours does Joel need to practice this week to meet his goal? Show your work.

2. A school district purchased 615 new laptops for their mobile labs. Each computer cost \$409. What is the total cost for all of the laptops?
3. A club had some money to purchase new chairs. After buying 355 chairs at \$199 each, they had \$1,068 remaining. How much money did the club have at first?
4. Carmen has collected 14 boxes of baseball cards. There are 315 cards in each box. Carmen estimates that he has about 3,000 cards, so he buys 6 albums that hold 500 cards each. Will the albums have enough space for all of his cards? Why or why not?
5. When multiplying 1,729 times 308, Clayton got a product of 53,253. Without calculating, does his product seem reasonable? Explain your thinking.
6. During the 2011 season, a quarterback passed for 302 yards per game. He played in all 16 regular season games that year. If he matches this passing total for each of the next 5 seasons, how many yards will he pass?
7. Michelle multiplied 3.4×52 . She incorrectly wrote 1,768 as her product. Use words, numbers, and/or pictures to explain Michelle's mistake.
8. Ava runs 3.2 miles each weekday and 1.5 miles each day of the weekend. How many miles will she have run in 6 weeks?
9. A living room measures 24 feet by 15 feet. An adjacent square dining room measures 13 feet on each side. If carpet costs \$6.98 per square foot, what is the total cost of putting carpet in both rooms?
10. Art galleries often price paintings by the square inch. If a painting measures 22.5 inches by 34 inches and costs \$4.15 per square inch, what is the selling price for the painting?

Why do nations declare independence?

Background: In the years following the signing of the Declaration of Independence, countries around the world used the basic American model of declaring independence, asking for, or in some cases demanding, recognition by European sovereign powers and then defending the newly constituted nations. Dozens of countries in the Western Hemisphere gained their independence from European powers in a similar fashion, beginning with Haiti in 1804 and continuing through the first half of the 19th century.

Read the first part of the US Declaration of Independence and underline important reasons to rebel. Create an advertisement that illustrates at least three of the big ideas that support why the colonies wanted independence. Also include an idea or slogan to encourage people to joint with the people who want independence.

Declaration of Independence in Congress, July 4, 1776.

The unanimous Declaration of the thirteen united States of America, When in the Course of human events, it becomes necessary for one people to dissolve the political bands which have connected them with another, and to assume among the powers of the earth, the separate and equal station to which the Laws of Nature and of Nature's God entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the separation.

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable (*not able to take away*) Rights, that among these are Life, Liberty and the pursuit of Happiness.--That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed, --That whenever any Form of Government becomes destructive of these ends, it is the Right of the People to alter or to abolish it, and to institute new Government, laying its foundation on such principles and organizing its powers in such form, as to them shall seem most likely to effect their Safety and Happiness. Prudence, indeed, will dictate that Governments long established should not be changed for light and transient (*lasts a short time*) causes; and accordingly all experience hath shewn, that mankind are more disposed to suffer, while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed. But when a long train of abuses and usurpations (*violations*), pursuing invariably the same Object evinces a design to reduce them under absolute Despotism, it is their right, it is their duty, to throw off such Government, and to provide new Guards for their future security.-

[illegible]

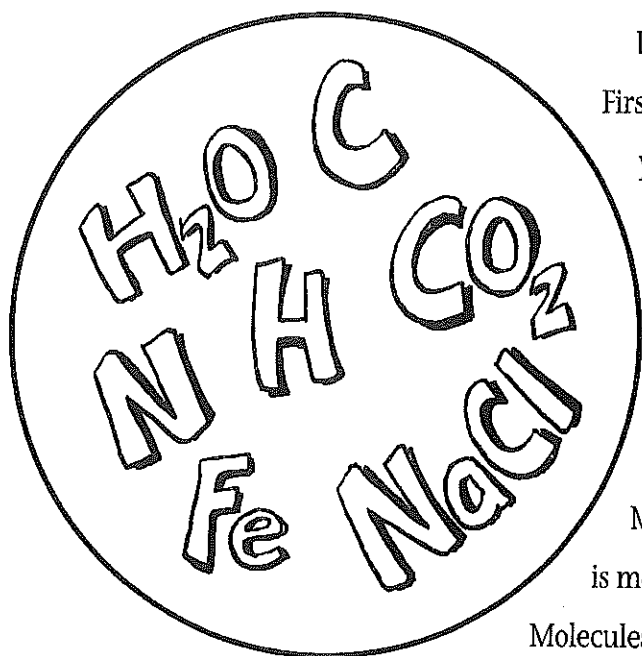
Section 12



Day 12 Show your work.

1. There are 5 cups of oatmeal in a container. Stella eats $\frac{1}{3}$ cup of the oatmeal every day for breakfast. In how many days will Stella finish all the oatmeal in the container?
2. A hippopotamus weighs 1,560,000 grams. Convert the hippopotamus' weight to kilograms.
3. Lou's cat had six kittens. When Lou and his brother weighed all the kittens together, they weighed 4 pounds 2 ounces. Since all the kittens are about the same size, about how many ounces does each kitten weigh?
4. To practice for a competition, Jose swam 0.86 kilometer every day for 3 weeks. How many meters did he swim in those 3 weeks?
5. String A is 45 centimeters long. String B is 5 times as long as String A. Both are necessary to create a necklace. Find the total length of string needed for 17 identical necklaces. Express your answer in meters.
6. For a field trip, the school bought 47 sandwiches for \$4.60 each and 39 bags of chips for \$1.25 each. How much did the school spend in all?
7. Over the course of a year, a tractor trailer commutes 160,000 miles across America. Assuming a trucker changes his tires every 40,000 miles, and that he starts with a brand new set of tires, how many sets of tires will he use in a year?
8. Jack estimated $637 \div 78$ as $640 \div 80$. He reasoned that 64 tens divided by 8 tens should be 8 tens. Is Jack's reasoning correct? If so, explain why. If not, explain a correct solution.
9. An oil well produces 172 gallons of oil every day. A standard oil barrel holds 42 gallons of oil. About how many barrels of oil will the well produce in one day? Explain your thinking.
10. Sally bought 28 apps for her phone that, altogether, used 1,348 MB of space. If each app used the same amount of space, estimate how many MB of memory did each app use?

Elements and Compounds



Do you remember when you first learned to read? First, you learned the letters of the alphabet. Then, you learned how to put letters together to form words. Learning about elements and compounds works in this same way.

Elements and compounds are a part of a subject called chemistry. Chemistry is the study of matter. All substances are made out of matter. Matter can be a solid, a liquid, or a gas. All matter is made up of smaller pieces called molecules.

Molecules are made up of even smaller pieces called atoms.

The “letters” of the chemistry alphabet are called elements.

Each element is made up of only one kind of material. Scientists have identified and named over 100 elements. These are the “letters” that are used to make chemistry “words.”

Chemists use abbreviations, or symbols, to stand for the names of chemical elements. It saves them a lot of time when writing the names of elements. Scientists have different ways of giving a chemical element a symbol. They usually take the first letter of an element’s name and write it as a capital letter (e.g., H for hydrogen). If a letter has already been used to name another chemical element, they may create a symbol using the Latin name of the chemical (e.g., Au for gold which comes from its Latin name Aurum). Sometimes, they will use two letters for the symbol—a capital letter followed by a lowercase letter (e.g., Ca for calcium).

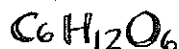
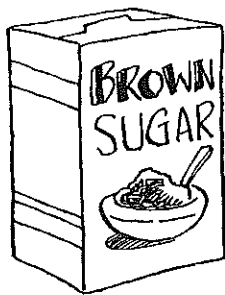
Now you are ready to make some chemistry words! Just like you combine letters to make words, you combine elements to make compounds, or chemistry words. Compounds are made when many elements combine to make new substances. It is like baking a cake. If you combine flour, eggs, sugar, chocolate, butter, and water and then place the mixture in an oven to bake, you can make a cake. The cake is very different from the separate ingredients you began with. After the cake is baked, you cannot reach into the cake and remove the eggs. In the same way, when elements

combine to make a compound, you cannot easily separate the ingredients either. You have made something new. You have made a compound.

A compound is made of molecules. A molecule is made of more than one atom. You can have molecules made of just one type of atom, like an oxygen molecule, O_2 . However, most molecules are made of many different kinds of atoms, just like most words are made of many different letters. Each time a chemist writes a capital letter, it stands for one atom of that element. If more than one atom is needed, then the chemist will write a little number next to the letter. For example, water would be written as H_2O . The H stands for hydrogen, the 2 means two atoms of hydrogen are needed, and the O stands for one atom of oxygen.

When you write a chemistry word, chemists call that a formula for a compound. Every chemical compound has a unique set of molecules that have different physical and chemical characteristics. When a compound is made, the original elements do not stay the same. For example, table salt is a compound. It is made up of two poisonous elements (sodium and chlorine). But, they are not poisonous when combined. In fact, table salt ($NaCl$) is essential to life. Some other common compounds are baking soda ($NaHCO_3$), brown sugar ($C_6H_{12}O_6$), and carbon dioxide (CO_2).

On the other hand, the ingredients in "mixtures" do keep their same characteristics. Mixtures are just an assortment of elements or elements and compounds that have been placed or mixed together but were not combined. Soil, ocean water, and air are examples of mixtures. It is easier to separate the elements of mixtures than compounds. Chemists use different combinations of elements, mixtures, and compounds to create medicines, spices, soaps, flavorings, and other products that we use every day.



Elements and Compounds Questions:

1. What is an element? What is the difference between a mixture and a compound?

2. What makes one compound different from another? Give some specific examples.

3. What types of things have you mixed together? Did you make mixtures or compounds? How do you know?

Section 13



Day 13 Show your work.

1. Olga decorates blankets with ribbon. She has 12 yards of ribbon. She uses 22 feet of the ribbon to decorate blankets. After she decorates the blankets, how many feet of ribbon remain?
2. A quart of paint covers about 85 square feet. About how many quarts would you need to cover a fence with an area of 1,785 square feet?
3. While preparing for a morning conference, Principal Patti is laying out 8 dozen bagels on square plates. Each plate can hold 14 bagels. How many plates of bagels will Mrs. Patti have? How many more bagels would be needed to fill the final plate with bagels?
4. Louis brings 79 pencils to school. After he gives each of his 15 classmates an equal number of pencils, he will give any leftover pencils to his teacher. How many pencils will Louis's teacher receive?
5. For an art project, Mrs. Williams is dividing construction paper into fourths. How many fourths can she make from 5 pieces of construction paper?
6. Ms. Leven is doing an art project with her class. She has a 4-foot piece of ribbon. If she gives each student an eighth of a foot of ribbon, will she have enough for her class of 35 students? Explain your thinking.
7. A principal orders 8 sub sandwiches for a parents' meeting. She cuts the subs into thirds and puts the mini-subs onto a tray. How many mini-subs are on the tray?
8. Mario delivers newspapers. He always puts $\frac{3}{4}$ of his weekly earnings in his savings account and then divides the rest equally into 3 piggy banks for spending at the snack shop, the arcade, and the subway. What fraction of his earnings does Mariano put into each piggy bank? Draw a diagram to show your thinking.
9. Sol has read $\frac{1}{3}$ of his book. He finishes the book by reading the same amount each night for 5 nights. If he reads 14 pages on each of the 5 nights, how long is the book?
10. The perimeter of a square is $\frac{1}{5}$ of a meter. What is the length of each side of the square?

Economics is the study of how people use limited resources to meet their needs/want with limited resources.

After reading this article consider the economics involved in the growth of the sugar industry in the Western Hemisphere and complete the graphic organizer.

In the beginning, on the island of New Guinea, where sugarcane was domesticated some 10,000 years ago, people picked cane and ate it raw, chewing a stem until the taste hit their tongue like a starburst....

Sugar spread slowly from island to island, finally reaching the Asian mainland around 1000 B.C. By A.D. 500 it was being processed into a powder in India and used as a medicine for headaches, stomach flutters... . For years sugar refinement remained a secret science, passed master to apprentice. By 600 the art had spread to Persia, where rulers entertained guests with a plethora of sweets. When Arab armies conquered the region, they carried away the knowledge and love of sugar....

The Arabs perfected sugar refinement and turned it into an industry. The work was brutally difficult. The heat of the fields, the flash of the scythes, the smoke of the boiling rooms, the crush of the mills. By 1500, with the demand for sugar surging, the work was considered suitable only for the lowest of laborers. Many of the field hands were prisoners of war, eastern Europeans captured when Muslim and Christian armies clashed.

Perhaps the first Europeans to fall in love with sugar were British and French crusaders who went east to wrest the Holy Land from the infidel. They came home full of visions and stories and memories of sugar....

Columbus planted the New World's first sugarcane in Hispaniola (modern Haiti and Dominican Republic)....Within decades mills marked the heights in Jamaica and Cuba, where rainforest had been cleared and the native population eliminated by disease or war, or enslaved. The Portuguese created the most effective model, making Brazil into an early boom colony, with more than 100,000 slaves churning out tons of sugar....

By the 18th century the marriage of sugar and slavery was complete. Every few years a new island—Puerto Rico, Trinidad—was colonized, cleared, and planted. When the natives died, the planters replaced them with African slaves.

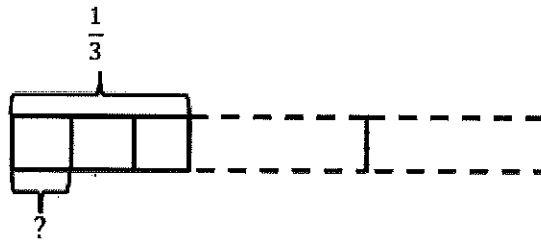
<i>Historic Event: growth of the sugar industry</i>
<i>Who was involved? (people) and where did it happen?</i>
<i>What want or need did they have?</i>
<i>What resources were available? Natural/Human/Capital</i>
<i>What good or service was provided?</i>

Section 14



Day 14 Show all your work

1. In the expression $5 \times \frac{y}{7}$, what value of y would make a product greater than 5? Explain your answer.
2. Tara baked $6\frac{1}{2}$ dozen cookies. She sold $3\frac{2}{6}$ dozen of the cookies she made. How many dozens of cookies does Tara have remaining?
A. $3\frac{1}{6}$ B. $3\frac{1}{4}$ C. $3\frac{3}{8}$ D. $3\frac{5}{6}$
3. Create and solve a story problem about $\frac{1}{3}$ pound of flour that is modeled by the tape diagram below.



4. The U.S. Mint sells 2 ounces of American Eagle gold coins to a collector. Each coin weighs one-tenth of an ounce. How many gold coins were sold to the collector?
5. Donald purchased a game for \$107, another for \$113.50 and third for \$53.78. How much did the game games cost?
6. The perimeter of a rectangle is 175 inches. If the length is 18.9 inches, what is the width of the rectangle in inches?
7. Sue is collecting ribbon. She has 3.7 inches of blue ribbon, .9 inches of green ribbon, 3 inches of blue ribbon and 1.2 inches of yellow ribbon. How many inches of ribbon does she have in total?
8. Ken has 19.73 yards of cable. He uses 4.2 yards of cable to fix his internet connection. How many yards of cable does he have remaining?
9. A cheerleader is in a competition. Judges award her scores of: 8.2, 8.5, 9.1, 7.5 and 8. What is her total score?
10. What is the volume of a rectangular prism with length of $5\frac{1}{2}$ inches, width of $2\frac{1}{2}$ and height of 6 inches?

Congratulations!

You've completed the at home
Enrichment Program!

