

7th Grade
VIRTUAL
LEARNING DAY
PACKET
DAYS 1-5

kzell@dbqdream.org
psaba@dbqdream.org

DAY 1

INFORMATIONAL READING COMPREHENSION:

WATER PROTECTORS

Read the text below and then answer the questions that follow.

Fresh water is an incredibly important and surprisingly rare resource. Although it makes up less than three percent of all of the water on Earth, clean fresh water is vital to life as we know it. Read the profiles below of three inspiring indigenous women who have worked to protect this precious resource.

JOSEPHINE MANDAMIN

Josephine Mandamin was born in 1942 in northern Ontario, Canada. Mandamin spent much of her life living by the Great Lakes that lie along the border between Canada and the United States. As an Anishinaabe (a member of one of Canada's First Nations), she was raised to recognize water as sacred.

In 2000, when she was a grandmother in her fifties, Josephine Mandamin heard a **prophecy** from an elder. The elder had had a dream that because of pollution, the price of an ounce of water would be as high as the price of an ounce of gold within 30 years. Mandamin realized then that the global community was facing a water **crisis**.

Mandamin wanted to bring attention to the destructive effects of water pollution, which she had seen firsthand living by Lake Superior. Inspired by the Anishinaabe tradition in which grandmothers lead others, especially other women, to take care of Earth's water, she founded an organization called Mother Earth Water Walk. It was through this organization that Mandamin empowered others to take action to protect Earth's water.

In the spring of 2003, Mandamin led a small group on a "water walk" all the way around Lake Superior, for a total of about 1,300 miles. Participants took turns carrying a copper pail of water, taking care not to spill a single drop. Following Anishinaabe tradition, only women and girls carried the copper pail of water. The walkers sang and offered blessings on the water as they walked from sunup to sundown.

Men and boys were there to offer support and transport supplies.

In the following years, Mandamin continued to lead water walks, earning her the name Grandmother Water Walker.

Between 2003 and 2017, she covered more than 10,000 miles in water walks, traveling the shorelines of all five of the Great Lakes, as well as other bodies of water across North America.

The water walks served to raise public awareness of the importance of water conservation. That awareness put pressure on the Canadian government to clean up polluted waters. Governing bodies of the indigenous First Nations created organizations to manage their water and work with the Canadian government to end water pollution. In 2007, the Anishinaabek Women's Water Commission was established, and Josephine Mandamin became the Chief Water Commissioner. The group has worked tirelessly to protect waterways, groundwater, and ecosystems.

Mandamin passed away in 2019 at the age of 77, leaving behind a legacy that continues to inspire others to follow in her footsteps as water protectors.



INFORMATIONAL READING COMPREHENSION:

WATER PROTECTORS

Answer the following questions about the article.

1. Complete the chart below with at least three similarities and three differences between Josephine Mandamin, Autumn Peltier, and Deb Haaland based on the information in the text.

	Josephine Mandamin	Autumn Peltier	Deb Haaland
Similarities			
Differences			

2. Based on the text, what three things inspired Josephine Mandamin to begin her water walks?
- A. hearing a prophecy from an elder about the price of water in the future
 - B. her firsthand observation of water pollution in the Serpent River First Nation
 - C. her firsthand observation of water pollution in Lake Superior
 - D. her deep love and respect for animals that live in the water
 - E. the summers she spent in her grandparents' village
 - F. her belief in the traditional Anishinaabe values of women protecting Earth's water

3. Read the following excerpt from the passage.

"The elder had had a dream that because of pollution, the price of an ounce of water would be as high as the price of an ounce of gold within 30 years. Mandamin realized then that the global community was facing a water crisis."

Why do you think Josephine Mandamin was alarmed after hearing this prophecy?

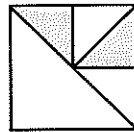
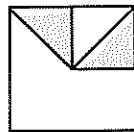
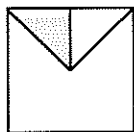
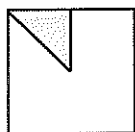
1-1**Practice****7MRI.1, 6AF2.3*****A Plan for Problem Solving***

Use the four-step plan to solve each problem.

1. **FOOD** The table shows a portion of the price list for a local pizzeria. Tony has \$17 that he can spend to buy one large pizza. If the pattern in the prices continues, what is the greatest number of toppings that Tony can order on his pizza? What is the cost of that pizza?

Toppings	Price
1	\$12.99
2	\$13.79
3	\$14.59
4	\$15.39

2. **MOVIES** Mr. Sedgwick paid \$13 for one adult ticket and one child ticket for a movie. Mrs. Wong paid \$18 for one adult ticket and two child tickets to see the same movie, and Mr. Gomez paid \$23 for one adult ticket and three child tickets. If the pattern continues, how much should Mrs. Beauregard expect to pay for one adult ticket and four child tickets?
3. **SPORTS** The track coach must buy at least two bottles of water for each participant in a track meet. One team has 35 members, and the other team has 28 members. If each case of water contains 24 bottles, what is the fewest number of full cases that the coach can buy?
4. **GEOGRAPHY** The land area of Washington, D.C., is 61 square miles. In 2003, the population of Washington, D.C., was 563,384. If one square mile is equal to 640 acres, about how many people per acre were there in Washington, D.C., in 2003?
5. **ART SUPPLIES** At the craft store, a paint brush costs \$0.79, and a small bottle of paint costs \$0.89. What combination of paint brushes and bottles of paint could you buy for exactly \$4.15?
6. **GEOMETRY** Draw the next two figures in the pattern.



Integers and Absolute Value

Replace each \bullet with $<$, $>$, or $=$ to make a true sentence.

1. $0 \bullet 8$

2. $-5 \bullet -3$

3. $1 \bullet -7$

4. $-4 \bullet -4$

5. $-12 \bullet 10$

6. $5 \bullet -6$

7. $-6 \bullet -7$

8. $0 \bullet -8$

9. $-10 \bullet -10$

Order each set of integers from least to greatest.

10. $\{-5, -7, 0, 5, 7\}$

11. $\{-1, 2, -3, 4\}$

12. $\{-2, -4, -6, -8, -10, -12\}$

13. $\{0, -9, -3, -7, 1, -1\}$

Evaluate each expression.

14. $|-19|$

15. $|15|$

16. $|0|$

17. $|-1| + |3|$

18. $|-19| + |-8|$

19. $|-12| - |4|$

Evaluate each expression if $k = 4$, $m = -2$, $n = 7$, and $p = -5$.

20. $|m| + 6$

21. $n - |p|$

22. $k + |p|$

23. $5|n| + k$

24. $|n| - 4$

25. $9|m| - 14$

TEMPERATURE For Exercises 26 and 28, use the following information.

During a five-day cold spell, Jose recorded the temperature each day at noon. The temperature was -3°F on Monday, -5°F on Tuesday, -4°F on Wednesday, -1°F on Thursday, and 0°F on Friday.

26. On which day was it the coldest at noon?

27. On which day was it the warmest at noon?

28. The temperature at noon on Saturday was 25° warmer than the temperature on Tuesday. What was the temperature on Saturday? Justify your answer using a number line.

DAY 2

ARACHNE AND THE WEAVING CONTEST

Arachne and the Weaving Contest is a story from Greek mythology. Greek myths often explain the origin of something in the natural world through stories about the many deities, heroes, and mythological creatures that were part of ancient Greek culture. This myth features Athena, the Greek goddess of wisdom and crafts, who was viewed as intelligent, athletic, talented, and also incredibly vain. Mortals that **provoked** her often had unhappy endings to their stories.

Long ago, there was a mortal woman named Arachne who was famous for her weaving. People from all over would come to watch her nimble and graceful fingers flicker across the cloth as she wove her beautiful fabrics. All the attention and praise for her hard work eventually made Arachne quite **conceited**. One day, she bragged that her weaving was better than that of the goddess Athena.

By and by, Athena heard about Arachne's boast. So, disguised as an old woman, Athena went to Arachne's home. "You should not compare yourself to the gods," the old woman warned. "If you apologize, Athena might let you live."

"Ha!" snorted Arachne. "If Athena thinks she can compete with me, she is sadly mistaken. I dare her to try to match the magnificence of my work. Everyone knows I am the best weaver that ever lived." Upon hearing Arachne's challenge, Athena let her disguise melt away and the goddess stood, glowering, in front of Arachne.

"I accept your challenge," Athena stated **imperiously**, "but the loser must agree to never weave on a loom or touch a spindle again." Arachne's face reddened for just a moment, but she nodded, still holding to her foolish pride. The women sat down at their looms and began to weave, and a crowd gathered to watch the contest. All day, the hands of the mortal and the goddess danced across the looms.

By the time the sun began to set over the mountains, it was clear that Arachne's cloth was glorious. To insult and mock Athena, she had woven a gorgeous tapestry showing the gods punishing mortals who defied or dishonored them.



Although stunning and flawless, Arachne's tapestry could not compare to Athena's. The goddess had woven dazzling images of the gods in all their glory, dressed in exquisite colors that human eyes had never beheld. The sparkling waves seemed to ripple across the fine **gossamer** cloth; the sun's rays looked so real that those standing close could actually feel the warmth of sunbeams radiating from the fabric.

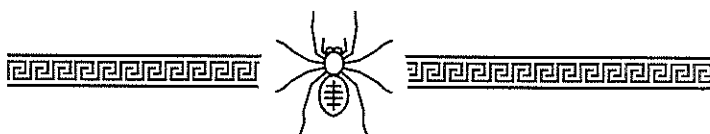
Arachne hung her head. Although her pictures were beautiful, they were not as realistic as Athena's. The goddess was the obvious winner of the contest.

Tears filled Arachne's eyes as she imagined the life before her, never being able to touch a loom or spindle again.

Athena herself was amazed at Arachne's talent. Not even her wrath at the girl's **impertinence** could **wholly** overcome her wonder. For an instant, she stood entranced; then she touched Arachne's forehead with her spindle.

"Weave on, Arachne," she said. "Since it is your glory to weave, you and yours must weave forever."

In that moment, Arachne's human form shrank to that of the very first spider, and so remained. As a spider, she spent all her days weaving and spinning, and even now you may still see her handiwork among the rafters.



Arachne's name and fate have endured through the ages in the modern scientific name for spiders, *arachnids*.



Extended Reading Comprehension: Funding Space Exploration

IS FUNDING SPACE EXPLORATION STILL WORTH IT?

The author of this article presents one perspective on the topic of whether U.S. government funds should go toward space exploration programs. Read the passage, and then answer the questions that follow.

1 Each year, the United States government spends a significant amount of time debating the federal budget. How should public money, raised through taxes, be spent? With so many important programs to fund—such as education and infrastructure—why **allocate** money to impractical projects like sending humans to Mars? In the face of immediate public needs, should the government continue to invest in space exploration science? The answer is, without question, yes.

2 When NASA's *Apollo 11* landed on the moon in 1969, humans were inspired. That night, as people looked out their windows and saw the moon, they thought, "We are up there!" That moment exhibited the great possibilities of human knowledge and effort. It pushed people to pursue science. It challenged them to do the extraordinary, to follow their imaginations.

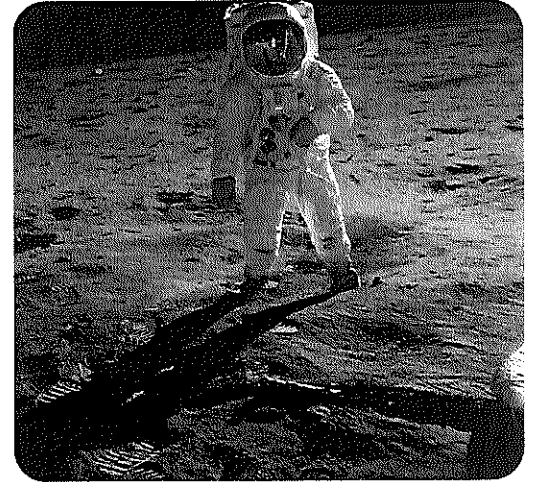


Image 1: *Apollo 11* astronaut Buzz Aldrin walks on the moon, July 1969

3 Some would argue that the inspiration of discovery alone is enough to justify funding NASA's programs. But space exploration also positively impacts humans in more concrete, though less direct, ways. Space exploration has advanced many aspects of daily life, although the uses of new scientific discoveries or inventions are not always immediately obvious.



Image 2: Africa's Lake Victoria from NASA's Aqua Satellite. Radar Technologies International uses satellite data to locate underground water in arid regions.

4 When the first human-made satellite was launched into space in 1957, no one could predict the many uses satellites would have. Just over half a century later, many technologies directly rely on artificial satellites. They transmit information to the ever-present smartphone. They help meteorologists predict weather patterns, which allows agricultural managers to plan efficient farming practices and helps fight hunger. Satellites are also used to predict natural disasters such as hurricanes, allowing people to respond in time.

5 Countless other technologies developed for space exploration have practical uses as well. These range from the lifesaving to the convenient. Many medical, industrial, and commercial products have their origins in NASA inventions. A few of many examples include improved artificial hearts, thermoelectric cooling systems for computers, and wireless headphones.

Subtracting Integers

Subtract.

1. $15 - 7$

2. $3 - 12$

3. $-8 - 9$

4. $4 - (-12)$

5. $18 - (-7)$

6. $-8 - (-9)$

7. $-14 - (-18)$

8. $-19 - (-13)$

9. $8 - (-22)$

10. $-1 - 15$

11. $12 - 19$

12. $-10 - (-5)$

Evaluate each expression if $d = -4$, $f = -7$, and $g = 11$.

13. $d - 10$

14. $g - 15$

15. $d - g$

16. $d - f$

17. $d - f - g$

18. $g - d - f$

GEOGRAPHY For Exercises 19–21, use the table that shows the elevations above sea level of the lowest and highest points on six continents.

19. How far below the highest point in Australia is the lowest point in Australia?
20. How far below the highest point in North America is the lowest point in Asia?
21. Find the difference between the lowest point in South America and the lowest point in Africa.

Continent	Lowest Point (m)	Highest Point (m)
Africa	-156	5,895
Asia	-400	8,850
Australia	-12	2,228
Europe	-28	5,642
North America	-86	6,194
South America	-42	6,960

Source: www.worldofacts.com

Simplify.

22. $29 - (-4) - (-15)$

23. $-10 - [8 + (-16)]$

24. $25 - [16 + (-9)]$

25. $[22 - (-18)] - (-5 + 11)$

26. $(-5 + 9) - (-20 - 12)$

27. $[-15 + (-7)] - (-8 - 11)$

1-7

Practice

7AF1.1, 7AF1.4

Writing Equations

Define a variable. Then write an equation to model each situation.

1. After receiving \$25 for her birthday, Latisha had \$115.
2. At 14 years old, Adam is 3 years younger than his brother Michael.
3. A class of 30 students separated into equal sized teams results in 5 students per team.
4. When the bananas were divided evenly among the 6 monkeys, each monkey received 4 bananas.

Define a variable. Then write an equation that could be used to solve each problem.

5. **GRADES** Kelly's test score was 6 points higher than Michelle's. If Kelly's test score was 88, what was Michelle's test score?
6. **GEOMETRY** A rectangle's width is one-third its length. If the width is 8 inches, what is the length of the rectangle?
7. **FOOTBALL** A team had a total gain of -15 yards over several plays with an average gain of -5 yards per play. How many plays are represented?

Write an equation to model the relationship between the quantities in each table.

8.

Kilograms, k	Grams, g
1	1,000
2	2,000
3	3,000
4	4,000
k	g

9.

Feet, f	Yards, y
3	1
6	2
9	3
12	4
f	y

10. **MONEY** Carlotta earns \$3 for every hour that she baby sits. Complete the table of values showing the amount she earns for baby sitting 1, 2, 3, 4, and h hours. Given h , a number of hours, write an equation to find a , the amount that Carlotta earns.

Hours, h	Amount, a

DAY 3

INFORMATIONAL READING COMPREHENSION:

BIOGRAPHY OF ALTHEA GIBSON

Read the text, and then answer the questions that follow.

1 When you think of the greatest tennis players of all time, Venus and Serena Williams might come to mind. But the Williams sisters began their professional careers about 50 years after another female tennis player took the tennis world by storm. Althea Gibson, the first African American athlete to compete at the highest levels of national and international tennis, paved the way for other African American athletes to achieve greatness in sports.

READY POSITION

2 Althea Gibson was born in 1927 to sharecroppers on a cotton farm. A life of segregation and extreme economic challenges prompted her family to relocate from South Carolina to Harlem, a section of New York City, when Althea was three. But even in their new home, the Gibsons' struggles continued—the 1930s were difficult years as the Great Depression took a toll on families all across the country. During this time, young Althea Gibson found solace in sports. Her love of sports was the spark that ignited a career filled with firsts as she paved the way for future generations of Black athletes.

3 When young Althea started playing paddle tennis through the local Police Athletic League, she quickly made a name for herself. At age 12, she became New York City's women's paddle tennis champion. A local bandleader noticed Althea's talent, and with the help of some neighbors, he raised enough money to enroll her in tennis lessons at Harlem's Cosmopolitan Tennis Club. Althea excelled at the sport, and in



1941, she won her first American Tennis Association (ATA) state tournament. The ATA was established in 1916 to provide opportunities for Black athletes interested in tennis. Due to segregation in sports, the ATA was Althea Gibson's only option for playing competitive tennis. She picked up her first ATA national championship title in 1944.

CHALLENGER

4 Despite her success, Gibson was still unable to compete in the U.S. National Championships, the top-tier tennis competition now known as the U.S. Open. Policies created by the U.S. Lawn Tennis Association (USLTA) required athletes to earn points by winning competitions at clubs in order to gain entry to the tournament. However, Althea Gibson had a particularly difficult time earning these points, as most clubs prohibited Black athletes from competing.

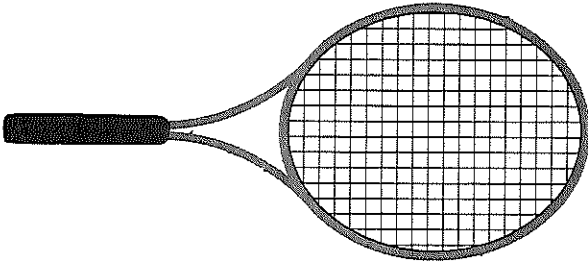
5 As Gibson became a rising star in the ATA, she **garnered** the attention of two African American doctors prominent in the African American tennis community. Dr. Robert Walter Johnson and Dr. Hubert Eaton wanted to integrate the USLTA and believed Althea could become the kind of player who could break the existing racial barriers. The two men offered to mentor Gibson and help her train while she finished school. Althea agreed, and in 1944, she moved in with Dr. Eaton and his family in Wilmington, North Carolina, where she attended high school. During the summers, she lived with Dr. Johnson and his family in Lynchburg, Virginia, and toured the U.S. to play in tennis competitions.

INFORMATIONAL READING COMPREHENSION: BIOGRAPHY OF ALTHEA GIBSON

Answer the following questions about the biography of Althea Gibson.

1. Which statement best conveys the central idea of the passage?
 - a. Althea Gibson was an African American athlete who made significant impacts in sports as she broke racial barriers during her career.
 - b. Althea Gibson was a trailblazing tennis and golf professional who earned top honors in both sports.
 - c. Althea Gibson was a tennis player who competed and won at the highest levels of tennis throughout her entire career.
 - d. Althea Gibson was the first African American athlete to win a Grand Slam title and to compete in the U.S. Open.

2. Based on the text, why was it important for Gibson to compete in tennis tournaments outside of the ATA tournaments?



3. The table below has missing information. Fill in the blanks.

PEOPLE OR ORGANIZATIONS THAT HELPED GIBSON	HOW THEY HELPED
	helped Althea develop athletic skills as a child
Bandleader and other people in New York City who noticed Althea's talent	
	took Althea in, provided training, and kept her competing
Alice Marble	
Althea Gibson herself	

Solving Addition and Subtraction Equations

Solve each equation. Check your solution.

1. $t + 7 = 12$

2. $h - 3 = 8$

3. $8 = b - 9$

4. $k - 4 = -14$

5. $m + 9 = -7$

6. $y - 10 = -3$

7. $-14 = 2 + d$

8. $15 + n = 10$

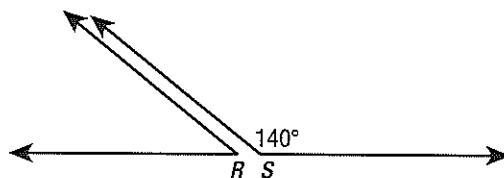
9. $-8 = r - 6$

10. $11 = w - 5$

11. $-9 = g + 9$

12. $12 + c = 16$

13. **GEOMETRY** Two angles are supplementary if the sum of their measures is 180° . The two angles shown are supplementary. Write and solve an equation to find the measure of angle R .



14. **ARCHITECTURE** The Sears Tower in Chicago was the tallest building in the world when it was completed. Twenty-three years later, a taller building was completed in 1996 on Taiwan. Write and solve an equation to find the year that the Sears Tower was completed.
15. **FUND RAISING** During a five-day fund raiser, Shantell sold 8 boxes of greeting cards the first day, 6 boxes the second day, 10 boxes the third day, and 7 boxes the fourth day. If she sold a total of 45 boxes of greeting cards during the five days, write an equation that can be used to find the number of boxes Shantell sold the fifth day. Explain two methods of solving this equation. Then solve the equation.

16. **ANALYZE TABLES** The total points scored by both teams in the 2006 Super Bowl was 14 less than the total points for 2005. Write and solve an equation to find the total points for 2005.

Year	Points
2005	p
2006	31

Source: www.superbowl.com

2-1

Practice

7NS1.3, 7NS1.5

Rational Numbers

Write each fraction or mixed number as a decimal.

1. $\frac{3}{5}$

2. $\frac{5}{8}$

3. $\frac{9}{20}$

4. $\frac{37}{50}$

5. $-\frac{11}{16}$

6. $-\frac{9}{32}$

7. $3\frac{1}{5}$

8. $4\frac{3}{8}$

9. $\frac{5}{33}$

10. $-\frac{7}{9}$

11. $-8\frac{11}{18}$

12. $-9\frac{11}{30}$

Write each decimal as a fraction or mixed number in simplest form.

13. -0.8

14. 0.44

15. 1.35

16. $0.\overline{8}$

17. $-1.\overline{5}$

18. $4.\overline{4}$

POPULATION For Exercises 19–21, refer to the table at the right.

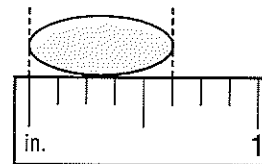
- 19. Express the fraction for Asian as a decimal.
- 20. Find the decimal equivalent for the fraction of the population that is African American.
- 21. Write the fraction for Hispanic as a decimal. Round to the nearest thousandth.

Population of California by Race	
Race	Fraction of Total Population
Asian	$\frac{1}{10}$
African American	$\frac{1}{16}$
Hispanic	$\frac{1}{3}$

Source: U.S. Census Bureau

MEASUREMENTS For Exercises 22 and 23, use the figure at the right.

- 22. Write the width of the jellybean as a fraction.
- 23. Write the width of the jellybean as a decimal.



DAY 4

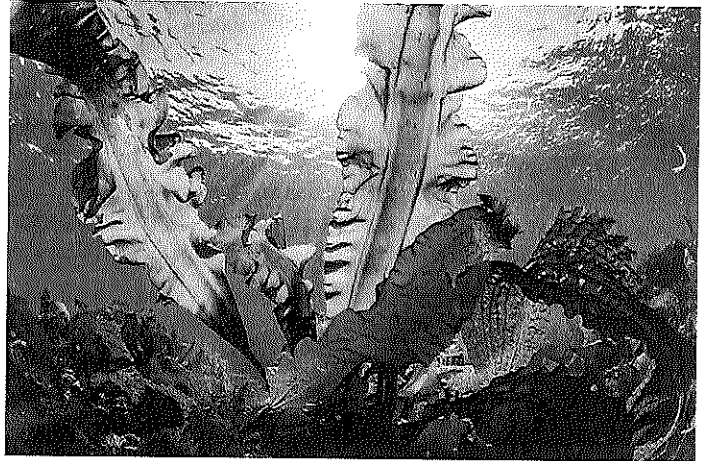
INFORMATIONAL READING COMPREHENSION:

Sustaining the World With Seaweed

Read the passage and answer the questions that follow.

1 Despite the name, seaweed is not actually a weed! The plant-like marine organisms collectively referred to as "seaweed" are actually beneficial algae. Because many species of these macro-algae are edible and quite nutritious, they are often referred to as sea vegetables. But seaweed is more than a food sometimes used to flavor soups and wrap sushi. Many scientists believe that seaweed could be the key to solving some of the world's most pressing problems. If cultivated and used wisely, seaweed could not only feed the world's growing population but also help us reduce pollution and maintain a healthy balance of the gases in Earth's atmosphere. Seaweed could serve as a source of environmentally friendly consumer products and meaningful jobs.

2 **Seaweed as Superfood.** The world's human population is currently growing by tens of millions of people each year. As the population continues to expand, we will need to be able to produce sustainable, healthy foods to feed everyone. Furthermore, we will need to do so with less land and fewer resources to go around. Seaweed can be a big part of the solution. Seaweed grows fast, and it is rich in healthy protein, vitamins, minerals, and fiber. And growing seaweed doesn't require the use of harmful pesticides, fertilizers, fresh water, or—perhaps most significantly—land! Researchers have estimated that ocean seaweed gardens covering around 180,000 total kilometers—the approximate size of the state of Washington—could likely feed the world.



3 Seaweed is not just a food source for people, though. Seaweed is an excellent source of nutrition for all types of animals, many of which provide food for humans, too. In fact, seaweed provides both food and habitat for many species of fish. Healthy "forests" of seaweed help sustain fisheries that people rely on for both food and jobs. Furthermore, seaweed is a nutritious supplement that can be added to livestock feed. Studies have shown that mixing seaweed into feed for cattle and sheep can reduce their production of methane gas by 99 percent, which in turn significantly decreases the amount of this heat-trapping gas in the atmosphere.

4 **Help From Kelp.** Methane is just one heat-trapping gas that seaweed can help reduce. Carbon dioxide (CO_2), a greenhouse gas that stays in the atmosphere much longer than methane, can be absorbed and kept out of the atmosphere by a giant seaweed called kelp. Kelp forests grow near rocky shorelines. Like forests of trees on land, marine kelp forests need CO_2 to grow and produce their own food through a process called photosynthesis. But kelp grows much faster than trees—as much as two feet per day! So kelp absorbs, or captures, a lot of carbon dioxide while it grows. Even more importantly, it keeps the CO_2 out of the atmosphere for a long time—much longer than trees. When trees die, they quickly release carbon dioxide back into the atmosphere. But much of the carbon from decaying kelp is carried away and buried deep in the ocean. This process happens in two ways.



INFORMATIONAL READING COMPREHENSION:

Sustaining the World With Seaweed

Answer the following questions about "Sustaining the World With Seaweed."

1. Part A: Which statement best represents the author's point of view as expressed in the passage?

- A. Without seaweed, marine animals would no longer be able to survive in the wild.
- B. Seaweed could play an important role in solving many of the world's problems.
- C. People need to stop harvesting seaweed because it is destroying the oceans.
- D. Seaweed is the only food that people really need in order to survive and be healthy.

Part B: List three central ideas the author presents to support the above point of view.

- A. _____
- B. _____
- C. _____

2. Based on information in the "Seaweed as Superfood" section of the text, describe the advantages of seaweed as a source of human food.

3. Based on information in the "Help From Kelp" section, why do marine kelp forests likely outperform land forests in removing CO₂ from the atmosphere? Choose all that apply.

- A. Because they grow faster, kelp forests absorb CO₂ from the atmosphere at a faster rate than an equal acreage of trees.
- B. There are more kelp forests in all the oceans than there are tree forests on all the continents of the world.
- C. Kelp lives much longer than trees, so it holds onto its absorbed CO₂ for a longer period than trees do.
- D. The CO₂ from decaying kelp forests gets trapped, while the CO₂ from trees is quickly returned to the atmosphere.
- E. Marine animals that live in the kelp forests consume the CO₂ that is absorbed by the underwater kelp forests.

4. Review the text and diagram in the "Help From Kelp" section of the passage. In your own words, summarize the process by which kelp removes and keeps CO₂ out of the atmosphere.

2-3**Practice**

7NS1.2, 7MG1.3

Multiplying Positive and Negative Fractions

Find each product. Write in simplest form.

1. $\frac{1}{4} \cdot \frac{4}{5}$

2. $\frac{6}{7} \cdot \frac{1}{2}$

3. $\frac{3}{10} \cdot \frac{2}{3}$

4. $-\frac{15}{16} \cdot \frac{4}{5}$

5. $\left(-\frac{8}{25}\right)\frac{15}{16}$

6. $\left(-\frac{7}{8}\right)\left(-\frac{1}{7}\right)$

7. $1\frac{1}{4} \cdot \frac{1}{5}$

8. $1\frac{1}{4} \cdot 1\frac{1}{5}$

9. $-2\frac{2}{3} \cdot \left(-\frac{1}{4}\right)$

10. $\frac{1}{4} \cdot \left(-\frac{4}{15}\right) \cdot \frac{5}{7}$

11. $2\frac{2}{5} \cdot 2\frac{1}{3} \cdot 2$

12. $10 \cdot 8.56 \cdot \frac{1}{2}$

ALGEBRA Evaluate each expression if $a = -\frac{1}{5}$, $b = \frac{2}{3}$, $c = \frac{7}{8}$, and $d = -\frac{3}{4}$.

13. bc

14. ab

15. abc

16. abd

17. **COOKING** A recipe calls for $2\frac{1}{4}$ cups of flour. How much flour would you need to make $\frac{1}{3}$ of the recipe?18. **FARMING** A farmer has $6\frac{1}{2}$ acres of land for growing crops. If she plants corn on $\frac{3}{5}$ of the land, how many acres of corn will she have?ALGEBRA Evaluate each expression if $e = -1\frac{1}{4}$, $f = 2\frac{2}{3}$, $g = -2\frac{1}{6}$, and $h = 1\frac{1}{5}$.

19. efh^2

20. e^2h^2

21. $\frac{1}{8}f^2g$

22. $-2ef(-gh)$

2-5**Practice**

7NS1.2

Adding and Subtracting Like Fractions

Add or subtract. Write in simplest form.

1. $-\frac{1}{4} + \frac{3}{4}$

2. $-\frac{3}{8} + \left(-\frac{1}{8}\right)$

3. $-\frac{8}{11} + \frac{10}{11}$

4. $-\frac{5}{7} - \frac{4}{7}$

5. $\frac{11}{12} - \frac{7}{12}$

6. $\frac{2}{15} - \frac{7}{15}$

7. $4\frac{3}{4} + 6\frac{3}{4}$

8. $5\frac{7}{10} + 9\frac{9}{10}$

9. $7\frac{4}{9} + \left(-3\frac{5}{9}\right)$

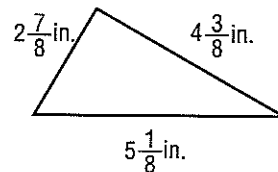
10. $-1\frac{8}{9} - 4\frac{8}{9}$

11. $-4\frac{4}{5} - 5\frac{4}{5}$

12. $8\frac{5}{6} - 3\frac{5}{6}$

13. **SEWING** Naomi needs $2\frac{3}{4}$ yards of fabric to make a banner for a football game. The fabric store has $6\frac{1}{4}$ yards of the fabric she wants. How much of the fabric will remain at the store after Naomi buys her fabric?

14. **GEOMETRY** Find the perimeter of the triangle.



Simplify each expression.

15. $-5\frac{4}{7} + 2\frac{1}{7} - \left(3\frac{5}{7}\right)$

16. $-7\frac{1}{12} - \left(-4\frac{11}{12}\right) + 9\frac{7}{12}$

ALGEBRA Evaluate each expressions for the given values.

17. $r + s$ if $r = 8\frac{4}{5}$ and $s = -3\frac{2}{5}$

18. $b - c$ if $b = -2\frac{7}{9}$ and $c = -9\frac{5}{9}$

DAY 5



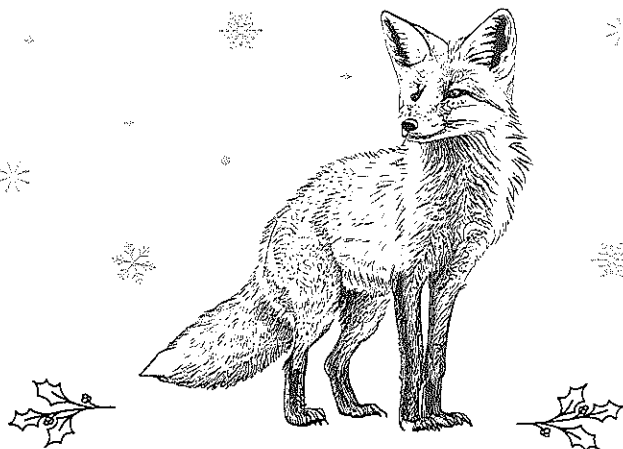
ANALYZING CHARACTERS IN

THE LION, THE WITCH

AND THE WARDROBE

Read the following excerpt from Chapter 11 of C. S. Lewis's novel. Then answer the questions that follow. In this excerpt, Edmund is traveling through the forest with the White Witch. The Witch long ago proclaimed herself ruler of Narnia and enchanted the land so that it is always winter and never Christmas.

- 1 How Edmund hoped she was going to say something about breakfast! But she had stopped for quite a different reason. A little way off at the foot of a tree sat a merry party, a squirrel and his wife with their children and two satyrs and a dwarf and an old dog-fox, all on stools round a table. Edmund couldn't quite see what they were eating, but it smelled lovely and there seemed to be decorations of holly and he wasn't at all sure that he didn't see something like a plum pudding. At the moment when the sledge stopped, the Fox, who was obviously the oldest person present, had just risen to its feet, holding a glass in its right paw as if it was going to say something. But when the whole party saw the sledge stopping and who was in it, all the gaiety went out of their faces. [...]
- 2 "What is the meaning of this?" asked the Witch Queen. Nobody answered.
- 3 "Speak, vermin!" she said again. [...] "What is the meaning of all this gluttony, this waste, this self-indulgence? Where did you get all these things?"
- 4 "Please, your Majesty," said the Fox, "we were given them. And if I might make so bold as to drink your Majesty's very good health—"
- 5 "Who gave them to you?" said the Witch.
- 6 "F-F-F-Father Christmas," stammered the Fox.
- 7 "What?" roared the Witch, springing from the sledge and taking a few strides nearer to the terrified animals. "He has not been here! He cannot have been here! How dare you—but no. Say you have been lying and you shall even now be forgiven."
- 8 At that moment one of the young squirrels lost its head completely.
- 9 "He has—he has—he has!" it squeaked, beating its little spoon on the table. Edmund saw the Witch bite her lips so that a drop of blood appeared on her white cheek. Then she raised her wand. "Oh don't, don't, please don't," shouted Edmund, but even while he was shouting she had waved her wand and instantly where the merry party had been there were only statues of creatures (one with its stone fork fixed forever half-way to its stone mouth) seated round a stone table on which there were stone plates and a stone plum pudding.
- 10 "As for you," said the Witch, [...] "let that teach you to ask favor for spies and traitors. Drive on!" And Edmund for the first time in this story felt sorry for someone besides himself. It seemed so pitiful to think of those little stone figures sitting there all the silent days and all the dark nights, year after year, till the moss grew on them and at last even their faces crumbled away.





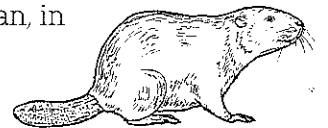
FIGURATIVE LANGUAGE IN

THE LION, THE WITCH

AND THE WARDROBE

Read the following excerpt from Chapter 10 of C. S. Lewis's novel. Then answer the questions that follow. In this excerpt, siblings Lucy, Peter, and Susan are following Mr. and Mrs. Beaver through Narnia. They are on their way to meet the lion Aslan, the rightful king of Narnia, while trying to avoid capture by the White Witch.

- 1 The snow had stopped and the moon had come out when they began their journey. They went in single file—first Mr. Beaver, then Lucy, then Peter, then Susan, and Mrs. Beaver last of all. [...]
- 2 Lucy enjoyed it at first. But as they went on walking and walking—and walking—and as the sack she was carrying felt heavier and heavier, she began to wonder how she was going to keep up at all. And she stopped looking at the dazzling brightness of the frozen river with all its waterfalls of ice and at the white masses of the treetops and the great glaring moon and the countless stars and could only watch the little short legs of Mr. Beaver going pad-pad-pad-pad through the snow in front of her as if they were never going to stop. [...]
- 3 Lucy was so tired that she was almost asleep and walking at the same time when suddenly she found that Mr. Beaver had turned away from the river bank [...] vanishing into a little hole in the bank which had been almost hidden under the bushes. [...]
- 4 Lucy immediately stooped down and crawled in after him. Then she heard noises of scrambling and puffing and panting behind her and in a moment all five of them were inside.
- 5 "Wherever is this?" said Peter's voice, sounding tired and pale in the darkness. (I hope you know what I mean by a voice sounding pale.)
- 6 "It's an old hiding place for beavers in bad times," said Mr. Beaver, "and a great secret. It's not much of a place but we must get a few hours' sleep." [...]
- 7 It wasn't nearly such a nice cave as Mr. Tumnus's, Lucy thought—just a hole in the ground but dry and earthy. It was very small so that when they all lay down they were all a bundle of fur and clothes together, and what with that and being warmed up by their long walk they were really rather snug. [...] Everyone went straight to sleep.
- 8 It seemed to Lucy only the next minute (though really it was hours and hours later) when she woke up feeling a little cold and dreadfully stiff and thinking how she would like a hot bath. Then she felt a set of long whiskers tickling her cheek and saw the cold daylight coming in through the mouth of the cave. But immediately after that she was very wide awake indeed, and so was everyone else. In fact they were all sitting up with their mouths and eyes wide open, listening to a sound which was the very sound they'd all been thinking of (and sometimes imagining they heard) during their walk last night. It was a sound of jingling bells.
- 9 Mr. Beaver was out of the cave like a flash the moment he heard it [...] to see which way the Witch's sledge went. The others all sat in the cave waiting and wondering. They waited nearly five minutes. Then they heard something that frightened them very much. They heard voices. "Oh," thought Lucy, "he's been seen. She's caught him!"
- 10 Great was their surprise when, a little later, they heard Mr. Beaver's voice calling to them from just outside the cave.
- 11 "It's all right," he was shouting. "Come out, Mrs. Beaver. Come out, Sons and Daughters of Adam and Eve. It's all right! It isn't her!" This was bad grammar of course, but that is how beavers talk when they are excited; I mean, in Narnia—in our world they usually don't talk at all.



2-7**Practice**

7AF1.1, 7NS1.2

Solving Equations with Rational Numbers

Solve each equation. Check your solution.

1. $m + 0.88 = 1.64$

2. $t - 2.89 = 9.15$

3. $-\frac{3}{5} = d - \frac{5}{6}$

4. $-\frac{7}{16} = b + \frac{1}{4}$

5. $h - (-6.3) = 8.12$

6. $-2.5 = n - (-5.37)$

7. $-\frac{5}{8}k = 25$

8. $-\frac{3}{7}v = -27$

9. $-2.94 = -0.42a$

10. $-8.4 = 1.4y$

11. $\frac{f}{2.4} = -7.5$

12. $\frac{p}{-6.25} = -3.6$

13. $2.5x = -\frac{13}{16}$

14. $-4.5w = -8\frac{1}{3}$

15. $8\frac{2}{3} = -1.\bar{3}g$

16. **MONEY** The currency in Switzerland is called a franc. On a certain day, one U.S. dollar equaled $1\frac{1}{4}$ Swiss francs. Write and solve a multiplication equation to find the number of U.S. dollars that would equal 15 Swiss francs.

FOOTBALL For Exercise 17, refer to the table.

17. Let s equal the number of additional seats that the Pittsburgh Steelers' stadium needs to equal the number of seats in Kansas City Chiefs' stadium. Write and solve an addition equation to determine the number of seats that the Steelers' stadium needs to equal the number of seats in the Chiefs' stadium.

NFL Stadiums Seating Capacity	
Stadium	Seats (thousands)
Dallas Cowboys	65.7
Kansas City Chiefs	79.4
Pittsburgh Steelers	64.5
San Diego Chargers	71.3

Source: stadiumsofnfl.com

3-7

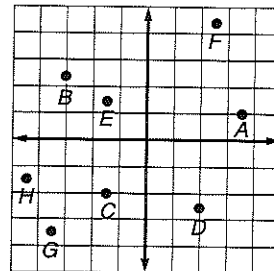
Practice

7MG3.2

Distance on the Coordinate Plane

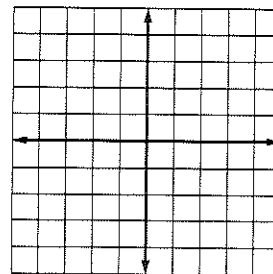
Name the ordered pair for each point.

- 1. *A*
- 2. *B*
- 3. *C*
- 4. *D*
- 5. *E*
- 6. *F*
- 7. *G*
- 8. *H*



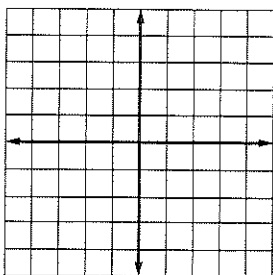
Graph and label each point.

- 9. $J\left(2\frac{1}{4}, \frac{1}{2}\right)$
- 10. $K\left(3, -1\frac{2}{3}\right)$
- 11. $M\left(-3\frac{3}{4}, 4\frac{1}{4}\right)$
- 12. $N\left(-3\frac{2}{5}, -2\frac{3}{5}\right)$
- 13. $P(-2.1, 1.8)$
- 14. $Q(1.75, -3.5)$

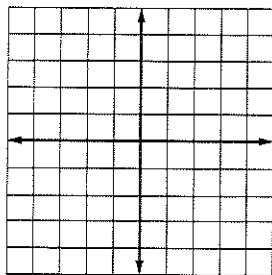


Graph each pair of ordered pairs. Then find the distance between the points. Round to the nearest tenth if necessary.

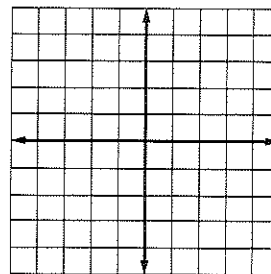
15. $(4, 3), (1, -1)$



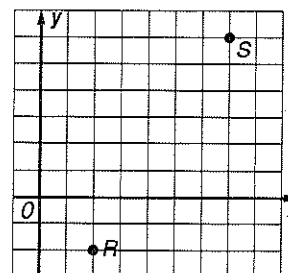
16. $(3, 2), (0, -4)$



17. $(-4, 3.5), (2, 1.5)$



18. Find the distance between points *R* and *S* shown at the right. Round to the nearest tenth.



19. **GEOMETRY** If one point is located at $(-6, 2)$ and another point is located at $(6, -3)$, find the distance between the points.

7th Grade Science Choice Board

Please complete 1-2 activities per virtual learning day.

Assignment Title	Assignment Description	Instructions for Parents/Guardians
Create a Science Video	Make a short video explaining a science concept you learned.	Help your child choose a topic, and assist with recording and editing if needed.
Design an Experiment	Plan and write out a simple experiment to test a hypothesis.	Provide materials from home and supervise the experiment for safety.
Science Comic Strip	Create a comic strip illustrating a scientific process.	Encourage your child to sketch and write the dialogue, and provide art supplies.
Virtual Field Trip	Explore a science-related virtual field trip online.	Help your child find a virtual field trip and discuss what they learned afterward.
Science Podcast	Record a podcast discussing a scientific topic of interest.	Assist with the recording setup and help brainstorm discussion points.
Create a Poster	Design a poster that presents information about a science topic.	Provide materials and space for your child to work on their poster.
Science Journal	Keep a daily journal of observations related to nature.	Encourage your child to write or draw what they observe every day.
Interactive Quiz	Create a quiz on a science topic using an online tool.	Assist your child in finding a quiz-making platform and review the quiz together.
Science Presentation	Prepare a PowerPoint or Google Slides presentation on a science topic.	Help your child with the structure and design of their slides.

7th Grade Social Studies Choice Board

Please complete 1-2 activities per virtual learning day.

Assignment Title	Assignment Description
Create a Timeline	Design a timeline showcasing major events from a specific historical period.
Virtual Museum Tour	Explore a virtual museum and write a summary of your favorite exhibit.
Social Media Post	Create a social media post about a historical figure, including their achievements.
Podcast Episode	Record a short podcast discussing a key event in history and its impact.
Infographic Creation	Create an infographic that highlights important facts about a historical event.
Debate Preparation	Prepare arguments for a debate on a historical issue and present them to your family.
Book Review	Write a review of a book related to your social studies topic, summarizing key points.
Interview a Family Member	Conduct an interview with a family member about their experiences related to history.
Create a News Report	Make a video or written news report covering a historical event as if it just happened.
Reflection Journal	Write a journal entry reflecting on what you learned this week in social studies.