Fifth Grade Student Name _____

April 2020

Monday	Tuesday	Wednesday	Thursday	Friday
AVID Advancement via Individual Determination		1 ELA- pgs. 201 Math- R76, 169, 170 Parent Initial ____	2 ELA- pgs. 203, 204, 205, 206 Math- R77 Parent Initial ____	3 ELA- pgs. 207, 208, 209, 210 Math-171, 172 Parent Initial ____
6 ELA- pgs. 101, 102 Science- Observing Patterns Math-R78 Parent Initial ____	7 ELA- pgs. 103, 104, Reading- California's Water Shortage Math-173, 174	8 ELA- pgs. 211, 212, 105 Math-R79 Parent Initial ____	9 ELA- pgs. 213, 214, 215, 216 Math-175, 176 Parent Initial ____	**10** **Good Friday**
13 **Spring Break**	**14** **Spring Break**	**15** **Spring Break**	**16** **Spring Break**	**17** **Spring Break**
20 ELA- pgs. 217, 218, 219, 220 Math-R80 Parent Initial ____	21 ELA- pgs. 106, 108, 109 Science- Light and Midnight Sun Math-177, 178 Parent Initial ____	22 ELA- pgs. 110, 221, Math-R81 Parent Initial ____	23 ELA- pgs. 223, 224, 225, 226 Math-179, 180 Parent Initial ____	24 ELA- pgs. 227, 228 Reading-Building a Bridge Math-R82 Parent Initial ____
27 ELA- pgs. 229, 230, 111, 112 Math-181, 182 Parent Initial ____	28 ELA- 113, 114, 115 Math practice page Parent Initial ____	29 Reading- Solar Absorbers Math practice page Parent Initial ____	30 Reading- Civil War Math practice page Parent Initial ____	

Important Information:
Please follow the calendar to ensure students are working at a reasonable pace. In addition to these resources, students should be login in to Lexia Core 5 for at least 20 minutes a day.

Name _____

disdain	prospect	focused	superb
genius	stunned	perspective	transition

Finish each sentence using the vocabulary word provided.

1. **(perspective) We looked at the problem from** _____

_____

2. **(disdain) When he said he didn't like any of my favorite things,** _____

_____

3. **(superb) She liked all the food, but** _____

_____

4. **(transition) My little sister will soon** _____

_____

5. **(genius) We each have our own talents, but** _____

_____

6. **(stunned) When the best runner slipped on the track,** _____

_____

7. **(prospect) After working hard all year,** _____

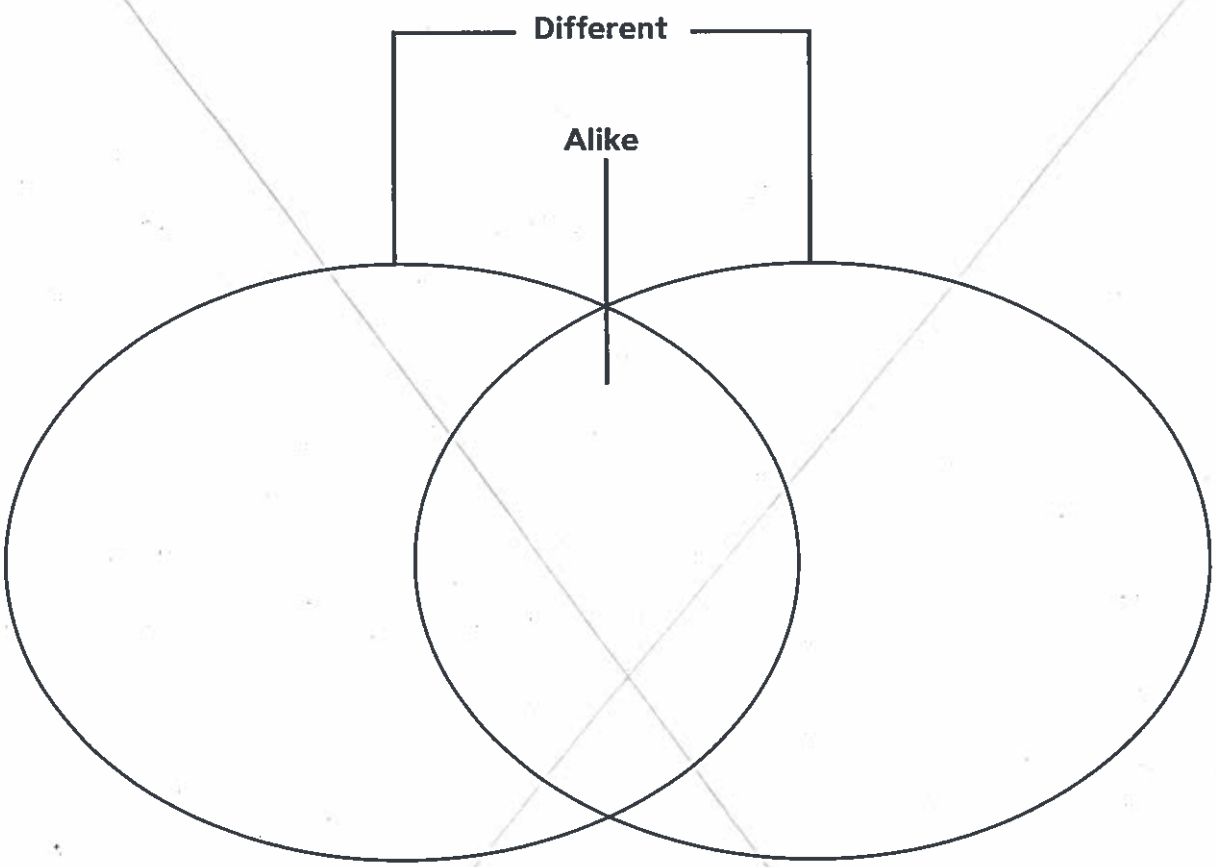
_____

8. **(focused) The dog was sitting at the window** _____

_____

Name _____

Read the selection. Complete the compare and contrast graphic organizer.



Name _____

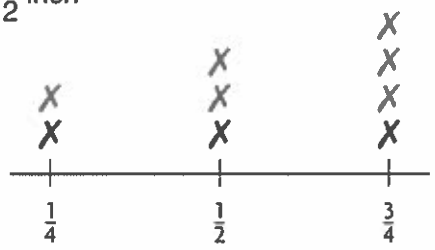
Line Plots

A **line plot** is a graph that shows the shape of a data set by placing *X*s above each data value on a number line. You can make a line plot to represent a data set and then use the line plot to answer questions about the data set.

Students measure the lengths of several seeds.
The length of each seed is listed below.

$\frac{1}{2}$ inch, $\frac{3}{4}$ inch, $\frac{1}{2}$ inch, $\frac{1}{4}$ inch, $\frac{3}{4}$ inch, $\frac{3}{4}$ inch, $\frac{3}{4}$ inch, $\frac{1}{4}$ inch, $\frac{1}{2}$ inch

What is the combined length of the seeds that are $\frac{1}{4}$ inch long?



Length of Seeds (in inches)

Step 1 To represent the different lengths of the seeds, draw and label a line plot with the data values $\frac{1}{4}$, $\frac{1}{2}$, and $\frac{3}{4}$. Then use an *X* to represent each seed. The line plot has been started for you.

Step 2 There are 2 *X*s above $\frac{1}{4}$ on the line plot.

Multiply to find the combined length of the seeds:

2 × $\frac{1}{4}$ = $\frac{2}{4}$, or $\frac{1}{2}$ inch

The combined length of the seeds that are $\frac{1}{4}$ inch long is $\frac{1}{2}$ inch.

You can use the same process to find the combined lengths of the seeds that are $\frac{1}{2}$ inch long and $\frac{3}{4}$ inch long.

Use the data and the line plot above to answer the questions.

1. What is the total length of all the seeds that the students measured?

2. What is the average length of one of the seeds that the students measured?

Name _____

Line Plots

COMMON CORE STANDARD—5.MD.2
Represent and interpret data.

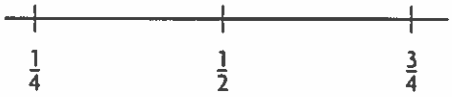
Use the data to complete the line plot. Then answer the questions.

A clerk in a health food store makes bags of trail mix. The amount of trail mix in each bag is listed below.

$\frac{1}{4}$ lb, $\frac{1}{4}$ lb, $\frac{3}{4}$ lb, $\frac{1}{2}$ lb, $\frac{1}{4}$ lb, $\frac{3}{4}$ lb,
$\frac{3}{4}$ lb, $\frac{3}{4}$ lb, $\frac{1}{2}$ lb, $\frac{1}{4}$ lb, $\frac{1}{2}$ lb, $\frac{1}{2}$ lb

1. What is the combined weight of the $\frac{1}{4}$-lb bags? 1 lb

   Think: There are four $\frac{1}{4}$-pound bags.



Weight of Trail Mix (in pounds)

2. What is the combined weight of the $\frac{1}{2}$-lb bags? _____

3. What is the combined weight of the $\frac{3}{4}$-lb bags? _____

4. What is the total weight of the trail mix used in all the bags? _____

5. What is the average amount of trail mix in each bag? _____

Julie uses crystals to make a bracelet. The lengths of the crystals are shown below.

$\frac{1}{2}$ in., $\frac{5}{8}$ in., $\frac{3}{4}$ in., $\frac{1}{2}$ in., $\frac{3}{8}$ in., $\frac{1}{2}$ in., $\frac{3}{4}$ in.,
$\frac{3}{8}$ in., $\frac{3}{4}$ in., $\frac{5}{8}$ in., $\frac{1}{2}$ in., $\frac{3}{8}$ in., $\frac{5}{8}$ in., $\frac{3}{4}$ in.

Lengths of Crystals (in inches)

6. What is the combined length of the $\frac{1}{2}$-in. crystals? _____

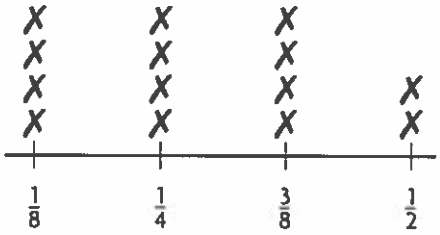
7. What is the combined length of the $\frac{5}{8}$-in. crystals? _____

8. What is the total length of all the crystals in the bracelet? _____

9. What is the average length of each crystal in the bracelet? _____

Lesson Check (5.MD.2)

A baker uses different amounts of salt when she bakes loaves of bread, depending on which recipe she is following. The amount of salt called for in each recipe is shown on the line plot.



Amount of Salt (in teaspoons)

1. Based on the line plot, how many recipes call for more than $\frac{1}{4}$ tsp of salt?

2. What is the average amount of salt called for in each recipe?

Spiral Review (5.NBT.4, 5.NF.1, 5.NF.4a, 5.NF.7c)

3. Ramona had $8\frac{3}{8}$ in. of ribbon. She used $2\frac{1}{2}$ in. for an art project. How many inches of ribbon does she have left? Find the difference in simplest form.

4. Ben bought $\frac{1}{2}$ pound of cheese for 3 sandwiches. If he puts the same amount of cheese on each sandwich, how much cheese will each sandwich have?

5. What is 92.583 rounded to the nearest tenth?

6. In Yoshi's garden, $\frac{3}{4}$ of the flowers are tulips. Of the tulips, $\frac{2}{3}$ are yellow. What fraction of the flowers in Yoshi's garden are yellow tulips?

Name _____

Read the passage. Use the make predictions strategy to help you understand what you are reading.

Bringing Home Laddie

"Papa, let's go!" Sofia was dressed and waiting on the shabby wooden porch. Her father couldn't hear her. He was in the neighbor's garden, digging up an ancient tree stump. Sofia shifted her feet and picked at the peeling paint on the railing. The sun hammered down on the porch, so that it was not merely hot, but sweltering. It would serve Papa right if she melted away like the Wicked Witch of the West. Why should Sofia have to wait? Why couldn't their neighbor, Mrs. Stone, wait instead? Then Papa could drive Sofia to the animal shelter now to adopt her new dog.

Sofia peered into the shadows of the house. "Mom," she yelled, "Papa promised we could go early. Do I have to walk?" She could imagine how unhappy she'd look—just another stray dog trudging dejectedly down the road.

Her mother came to the door, a damp dish towel in her hand. "Sofia, come help me." Sofia stayed where she was, as rooted as the neighbor's tree stump. "Standing here won't make your father finish any sooner. If you help me, he'll be here before you know it."

Sofia gave a sigh of profound suffering and followed her mother through the cool house into the spotless, lemony kitchen. She leaned against the counter and dried the dishes her mother handed her—along with a reminder of the promise she'd made to take care of the dog herself. "I know, Mom, I know," Sofia whined. To her surprise, by the time the dishes were dry, Papa was back. The time really had passed quickly, just as Mom had said it would.

When Sofia and her parents arrived at the shelter, an attendant escorted them to the dogs' quarters, a glaring concrete courtyard lined with tiny cages on all four sides. Its smell was revolting—a mixture of mouthwash and Papa's old fishing bucket.

Name _____

"Go look at them, Sweetie," said her father with a smile. Sofia was already heading toward one of the cages. As she neared it, the gaunt gray dog inside bared its teeth, backing away and growling. Sofia stared at it blankly. Didn't the dog like her? Maybe none of them would! Tears crowded her eyes, making them ache.

The attendant, who had followed Sofia, offered an explanation, "That poor thing's just skin and bones, and she's terrified of people. I think she's been mistreated. Let's go meet Laddie." Sofia looked back at the forlorn little dog, and she could see now how sad it looked.

Laddie was larger than the first dog, and his black and white fur was shaggier. When he saw Sofia, he rushed to the front of his cage, lifted his front legs, and scrabbled at the wire with his forepaws. One of his eyes was sky blue, and the other was chocolate brown. "You can pet him," the woman said to Sofia. "He won't bite." Sofia reached toward Laddie's smiling muzzle. The little sheepdog whined and gently licked her fingers. Sofia felt a tug at her heart and realized that Laddie had just slipped a leash over it.

The attendant took Laddie from his cage. He rolled onto his back, wagging his tail and gazing devotedly at Sofia. She rubbed his belly. The attendant showed how to hold his leash in two hands when she walked Laddie and reminded her to clean up after him. "Never leave his mess on other people's lawns," the attendant instructed. Sofia nodded, smiling.

As soon as they arrived home, Sofia got bowls of water and food for Laddie. She set them on a rubber mat on the kitchen floor and watched while Laddie ate. When he was done, she washed his food bowl and put it back on the shelf. "Well," said her mother with a proud smile, "it seems like you'll be looking after someone else for a change." Sofia grinned, petting the head of her contented dog.

Stuffing some plastic bags into her pocket, she picked up Laddie's leash. "Want to go meet Mrs. Stone?" As Laddie bounded beside her, his tail waved hello to all his new neighbors.

Name _____

A. Reread the passage and answer the questions.

1. **Contrast the first dog and Laddie. How are they different?**

_____

_____

2. **How does Sofia change from the beginning of the story to the end?**

_____

_____

3. **What causes the change in Sofia?**

_____

_____

4. **How are the settings of the animal shelter and Sofia's kitchen different?**

_____

_____

B. Work with a partner. Read the passage aloud. Pay attention to expression. Stop after one minute. Fill out the chart.

	Words Read	-	Number of Errors	=	Words Correct Score
First Read		-		=	
Second Read		-		=	

Name _____

The Spelling Bee

Gabe stood in the wings of the high school auditorium. The stage was huge, with chairs for 45 students. There were 3,000 people in the audience. "This is very different from our school's auditorium," he thought. "Ours holds only 300 people, and our stage isn't big enough to hold a fly." Gabe had won his school's spelling bee, but he doubted he would do well here. "I'll do the best I can," Gabe said to himself as he stepped onto the stage and focused on the spelling bee. By the end of the day, Gabe had made it to the state finals, and he felt a lot better about himself.

Answer the questions about the text.

1. **How do you know this text is realistic fiction? What makes the characters, events, and dialogue realistic?**

_____

_____

2. **Write an example of figurative language found in the text. Explain why it is figurative language.**

_____

_____

_____

3. **Who is the narrator of the story? Explain how you know.**

_____

_____

4. **Write a descriptive detail from the text that tells how Gabe felt after the spelling bee. How does this detail help you experience the text as realistic?**

_____

_____

Name _____

Ordered Pairs

A coordinate grid is like a sheet of graph paper bordered at the left and at the bottom by two perpendicular number lines. The **x-axis** is the horizontal number line at the bottom of the grid. The **y-axis** is the vertical number line on the left side of the grid.

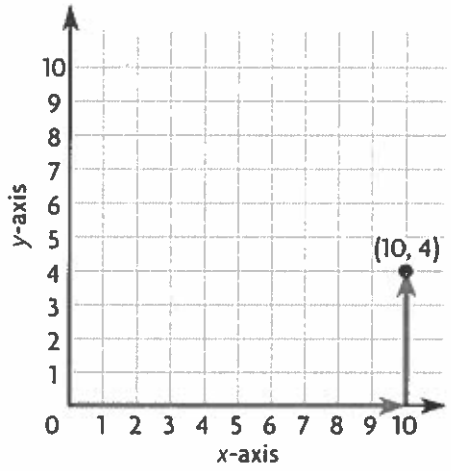
An ordered pair is a pair of numbers that describes the location of a point on the grid. An ordered pair contains two coordinates, *x* and *y*. The **x-coordinate** is the first number in the ordered pair, and the **y-coordinate** is the second number.

$(x, y) \longrightarrow (10, 4)$

Plot and label (10, 4) on the coordinate grid.

To graph an ordered pair:

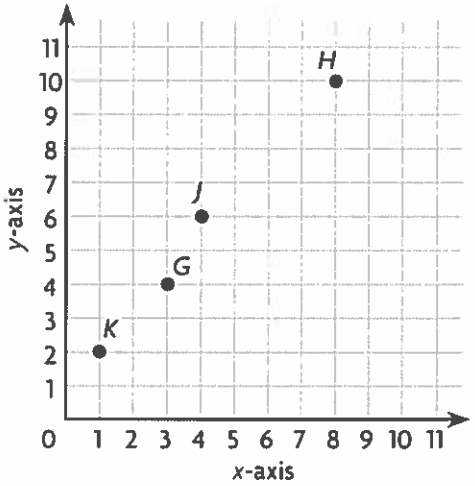
- Start at the origin, (0, 0).
- Think: The letter *x* comes before *y* in the alphabet. Move across the *x*-axis first.
- The *x*-coordinate is 10, so move 10 units right.
- The *y*-coordinate is 4, so move 4 units up.
- Plot and label the ordered pair (10, 4).



Use the coordinate grid to write an ordered pair for the given point.

1. *G* _____ **2.** *H* _____

3. *J* _____ **4.** *K* _____



Plot and label the points on the coordinate grid.

5. *A* (1, 6) **6.** *B* (1, 9)

7. *C* (3, 7) **8.** *D* (5, 5)

9. *E* (9, 3) **10.** *F* (6, 2)

Name _____

Read each sentence. Underline the context clues in the sentence that help you define each word in bold. Then, in your own words, write the definition of the word in bold.

1. The sun hammered down on the porch, so that it was not merely hot, but **sweltering**.

_____

2. Its smell was **revolting**—a mixture of mouthwash and Papa's old fishing bucket.

_____

3. As she neared it, the **gaunt** gray dog inside bared its teeth, backing away and growling. . . . The attendant, who had followed Sofia, offered an explanation. "That poor thing's just skin and bones, and she's terrified of people."

_____

4. Sofia looked back at the **forlorn** little dog, and she could see now how sad it looked.

_____

5. As soon as he saw Sofia, he rushed to the front of his cage, lifted his front legs, and scrabbled at the wire with his **forepaws**.

_____

Name _____

A. Add the suffix in parentheses to the word in bold.

	New Word
1. (less) **weight**	_____
2. (ist) **violin**	_____
3. (ion) **express**	_____
4. (ist) **art**	_____
5. (ful) **forget**	_____

B. Circle the suffix in each word. Then write a definition of the word based on the suffix.

6. narration _____
7. thoughtful _____
8. biologist _____
9. eruption _____
10. limitless _____

Name _____

A. Read the draft model. Use the questions that follow the draft to help you think about how you can change the opening to get the reader's attention.

Draft Model

I had waited a long time for a trip to the water park. The biggest slide was really high, but it was supposed to be fun.

1. What descriptive words could you add to the first sentence to make the reader want to know more about the writer's trip?
2. What details could you add to tell how the writer felt about going on this trip?
3. What details could you add to describe what the slide is like?
4. What details could you add to make the ride on the slide seem interesting?

B. Now revise the draft by adding details to create a strong opening.

Name _____

Gilbert wrote the paragraphs below using text evidence from *Ida B...and Her Plans to Maximize Fun, Avoid Disaster, and (Possibly) Save the World* and "A Dusty Ride" to answer the question: *In your opinion, were Ida B and Ravi justified in feeling upset about the changes in their lives?*

Ida B and Ravi had every right to feel upset about the changes that occurred in their lives. First of all, Ida B had to deal with some serious issues all at once. She found out that her mother had cancer, that part of her family's apple orchard would be destroyed, and that she had to go to public school after years of being home-schooled. It is a wonder she was able to find happiness amid such circumstances. If her teacher Ms. W. hadn't given her the opportunity to read aloud to the class and share something she loves to do, Ida B might have remained sad.

Ravi faced major adjustments, too. He had to leave his friends and move to a place where he did not know anyone. Furthermore, he moved to an environment he knew nothing about. He was used to the city. A farm in the country was like a different world. He couldn't even skateboard because there were no sidewalks. What a relief when he found something he wanted to do—learn to ride a horse.

Any child dealing with Ida B's and Ravi's problems would have struggled with such major changes. It says a lot about their character that they were able to recover so well.

Reread the passage. Follow the directions below.

1. **Circle** the word that links the ideas between the first and second paragraph.
2. **Draw a box** around the sentence that *best* restates Gilbert's opening opinion.
3. **Underline** the sentence that shows the conflict Ida B had to deal with.
4. **Write** the dependent clause Gilbert used in his writing.

_____

_____

Name _____

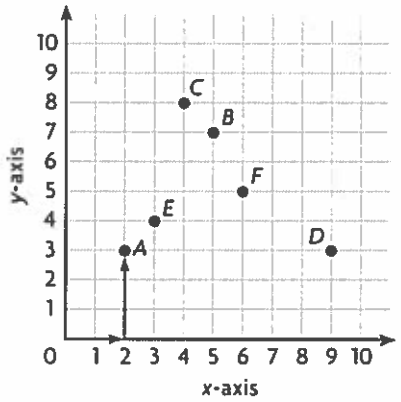
Ordered Pairs

COMMON CORE STANDARD—5.G.1
Graph points on the coordinate plane to solve real-world and mathematical problems.

Use Coordinate Grid A to write an ordered pair for the given point.

1. A (2, 3)
2. B
3. C
4. D
5. E
6. F

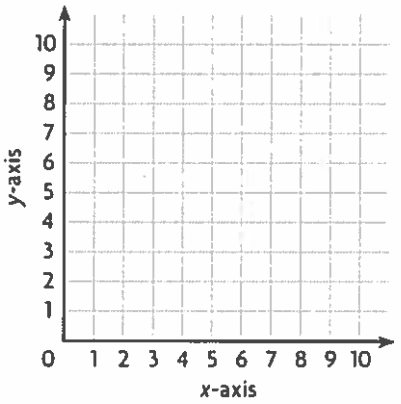
Coordinate Grid A



Plot and label the points on Coordinate Grid B.

7. $N(7, 3)$
8. $R(0, 4)$
9. $O(8, 7)$
10. $M(2, 1)$
11. $P(5, 6)$
12. $Q(1, 5)$

Coordinate Grid B



Problem Solving Real World

Use the map for 13–14.

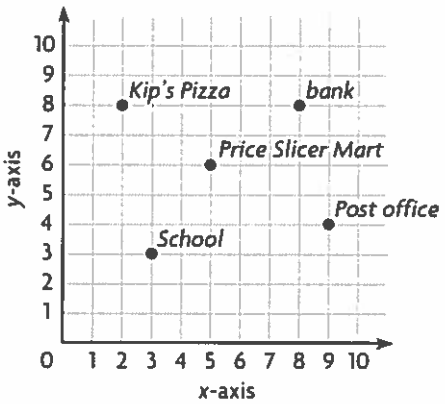
13. Which building is located at (5, 6)?

_____

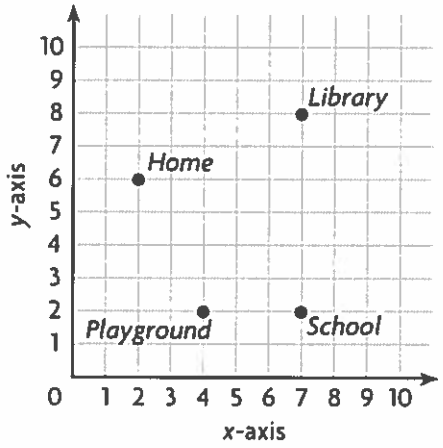
14. What is the distance between Kip's Pizza and the bank?

_____

Port Charlotte



Lesson Check (5.G.1)



1. What ordered pair describes the location of the playground?

2. What is the distance between the school and the library?

Spiral Review (5.NBT.1, 5.NBT.5, 5.NBT.6)

3. What is the value of the underlined digit?

   45,7<u>6</u>9,331

4. Andrew charges $18 for each lawn he mows. Suppose he mows 17 lawns per month. How much money will Andrew make per month?

5. Harlow can bicycle at a rate of 18 miles per hour. How many hours would it take him to bicycle a stretch of road that is 450 miles long?

6. Molly uses 192 beads to make a bracelet and a necklace. It takes 5 times as many beads to make a necklace than it does to make a bracelet. How many beads are used to make the necklace?

Name _____

- A **clause** is a group of words that has a subject and a predicate.
- An **independent clause** has one complete subject and one complete predicate. It can stand alone as a sentence.
- A **dependent clause** cannot stand alone as a sentence. It is introduced by a **subordinating conjunction,** such as *if* or *because.*

Read each sentence. Write whether the underlined words are an *independent clause* or a *dependent clause.*

1. I spent Saturday afternoon at the craft fair. _____
2. I got in free because I am a student. _____
3. If I bought something, I would receive a discount. _____
4. Since my mom is a painter, she had a booth there. _____
5. People liked her paintings, and she sold quite a few. _____
6. I stayed at the booth while she went to get lunch. _____
7. Several people stopped by, but no one bought anything. _____
8. When Mom got back, I told her about the visitors. _____
9. She shared some of the food that she had bought. _____
10. After we ate, I checked out the rest of the fair. _____

Name _____

- A **complex sentence** contains an independent clause and a dependent clause.
- Use a comma after an **introductory dependent clause**.

Use the subordinating conjunction in parentheses to combine the two clauses into one complex sentence. Write the new sentence on the line provided.

1. we played outside/the sun was still shining (while)

_____

2. it was hot/we drank lots of water (because)

_____

3. we took breaks/we got tired (whenever)

_____

4. night approached/it became harder to see (as)

_____

5. the lights hadn't come on/we would have been completely in the dark (if)

_____

_____

Take-Home Science

Observing Patterns of Day and Night

Sky Watching

Location: Outside where you live.
Challenge: Gather data and record observations about sunrise, sunset, and Moon phases.
Who: You and other sky watchers in your household who will help

1. **What to look for:** Observe the sunrise, sunset, and Moon phase in the sky over your home every other day for 14 days.

2. **How to prepare:**
   - Use a compass or an Internet resource such as Google Maps to determine which direction outside your home is which.
   - Draw a simple sketch of the **east** horizon as you see it from your home. Include buildings, trees, and utility poles. (Note: Trees and buildings may make it difficult to see the actual horizon where Earth and sky meet. You should draw the landmarks that make up the skyline as you see it.) Trace the same horizon line in all the "Morning" boxes on the Sky Watching Recording Sheet that starts on the next page. Repeat for the **west** horizon and the "Evening" boxes.
   - Every other day for 14 days, record where the Sun crosses each horizon. At sunrise, mark the point where the Sun first peeks above the horizon. At sunset, mark the point where the Sun is last visible when it dips out of sight. Record the date and time of each observation.

   ⚠ Do not look directly at the Sun.

   NOTE: If it is already daylight by the time you typically wake up, arrange for an adult to wake you earlier on the days you will make observations.

3. **What to record:**
   - The time, and where on your horizon, that the Sun first becomes visible in the morning.
   - The time, and where on your horizon, that the Sun is last visible in the evening.
   - Whether the Moon is visible during your morning and evening observations. If so, draw its phase.

4. **What to report:** Bring your completed recording sheet to class. Be ready to share your results and compare them with the observations of others.

Science Words

Horizon: The line at which Earth's surface and the sky seem to meet.
Moon phase: The apparent shape of the illuminated part of the Moon as it is observed from Earth.
Daytime: The period of time between sunrise and sunset.
Nighttime: The period of time between sunset and sunrise.

Take-Home Science

Name: _____ **Date:** _____

Sky Watching Recording Sheet

⚠ Do not look directly at the Sun.

Morning (East)	Evening (West)	Moon Phase
Date: _____ Time: _____	Date: _____ Time: _____	Date: _____ Time: _____
Date: _____ Time: _____	Date: _____ Time: _____	Date: _____ Time: _____
Date: _____ Time: _____	Date: _____ Time: _____	Date: _____ Time: _____
Date: _____ Time: _____	Date: _____ Time: _____	Date: _____ Time: _____

Take-Home Science

Date: _____ Time: _____	Date: _____ Time: _____	Date: _____ Time: _____
Date: _____ Time: _____	Date: _____ Time: _____	Date: _____ Time: _____
Date: _____ Time: _____	Date: _____ Time: _____	Date: _____ Time: _____

Summarize the changes reflected by your data: _____

Graph Data

Graph the data on the coordinate grid.

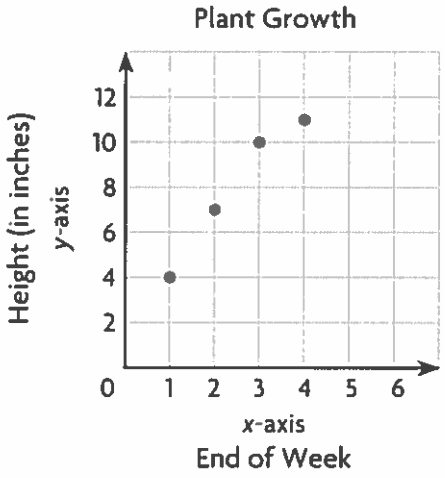
Plant Growth				
End of Week	1	2	3	4
Height (in inches)	4	7	10	11

- Choose a title for your graph and label it. You can use the data categories to name the *x*- and *y*-axis.
- Write the related pairs of data as ordered pairs.

(1, 4), (2, 7)

(3, 10), (4, 11)

- Plot the point for each ordered pair.



Graph the data on the coordinate grid. Label the points.

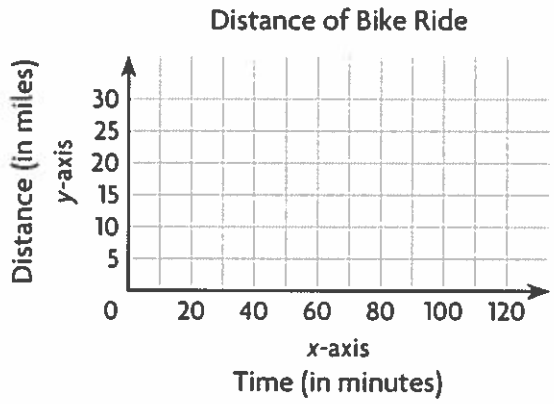
1.

Distance of Bike Ride				
Time (in minutes)	30	60	90	120
Distance (in miles)	9	16	21	27

Write the ordered pair for each point.

(____, ____), (____, ____)

(____, ____), (____, ____)



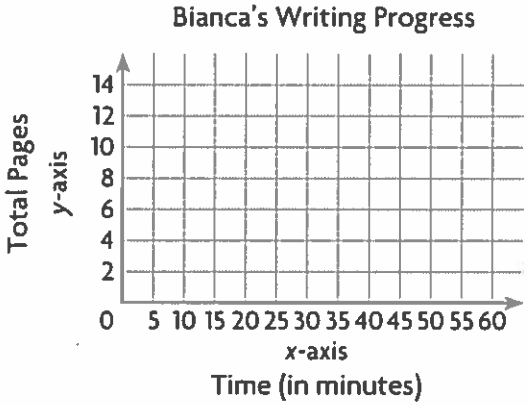
2.

Bianca's Writing Progress				
Time (in minutes)	15	30	45	60
Total Pages	1	3	9	11

Write the ordered pair for each point.

(____, ____), (____, ____)

(____, ____), (____, ____)



Name _____

- An **appositive** is a noun, noun phrase, or noun clause that explains or describes a nearby noun or pronoun.
- An appositive may come before or after a noun or a pronoun. Commas are used to set off many appositives.

Combine the two sentences into one by creating an appositive out of the second sentence. Write the new sentence on the line provided.

1. Ms. Thayer visited our class today. Ms. Thayer is our town's police chief.

_____

2. She spoke about KOPS. KOPS is the "Keep Our Parks Safe" program.

_____

3. She asked a student to help her. That student was Jodee Oskamp.

_____

4. Our town's paper ran an article about the visit. The Fineburg Flyer is our town's paper.

_____

_____

5. Marc Reynolds wrote the story. Marc Reynolds reports on local news.

_____

Name _____

- Use a comma after an **introductory dependent clause**.
- An **appositive** may come before or after a noun or a pronoun. Commas are used to set off many appositives.

Proofread the paragraph. On the lines below, correct mistakes in the use of clauses, appositives, and commas.

Billy "Bib" Barker the baseball legend will be signing photos after today's game. If you have a chance come by to say hello to him. Current members of the team which won last year's state championship will join Bib. Before Bib leaves the stadium Suki Yee our mayor will present him with a special award the key to the city. Channel 3 our local news station will broadcast the event live.

Name _____

Date _____

California's Water Shortage

Did you know that Earth is sometimes called the water planet? Water doesn't stay in just one place, though. The water cycle is the constant movement of water among the land, ocean, and atmosphere. The key processes in the water cycle are evaporation, condensation, and precipitation. The ocean is the greatest source of water for evaporation. When ocean water evaporates, the salts in the water are left behind. As water vapor in the air cools, it condenses into liquid water. The water drops grow and form clouds. When the drops become large enough, they fall as precipitation, and the cycle continues.

Although water is continually cycling, not all areas of the planet receive the same amount of precipitation. Parts of California sometimes are at risk of experiencing water shortages. For some communities, that means mandatory water restrictions. These restrictions limit the consumption of water to certain days, times, and uses.

What causes water shortages? Like much of the western U.S., California greatly depends on melting snow to resupply rivers, lakes, and streams. Recently, winter storms have not dropped the usual amount of snow. Record temperatures have increased evaporation. The combination of these factors leaves the land parched. With surface resources low, some areas, especially those that are heavily farmed, have drilled for groundwater. This water is used for growing crops or watering livestock. Groundwater resources take many years to recharge. The shortage of water could have negative impacts on the agriculture industry.

Scientists and engineers are looking at ways to help California and other places on Earth that experience droughts. Some of the technology they are investigating includes turning salt water into freshwater, harvesting water with fog catchers, and recycling wastewater.

Questions:

1. You drop your water bottle on the sidewalk. Describe how the water cycle will change the spilled water.

2. Northern California has many forests. How might droughts affect these environments?

3. California produces almost half of all the fruits, nuts, and vegetables grown in the United States. How might a long-term drought in California affect all parts of the country?

Credit: muratart/Shutterstock.com

Name _____

Graph Data

COMMON CORE STANDARD—5.G.2
Graph points on the coordinate plane to solve real-world and mathematical problems.

Graph the data on the coordinate grid.

1.

Outdoor Temperature					
Hour	1	3	5	7	9
Temperature (°F)	61	65	71	75	77

a. Write the ordered pairs for each point.

_____

_____

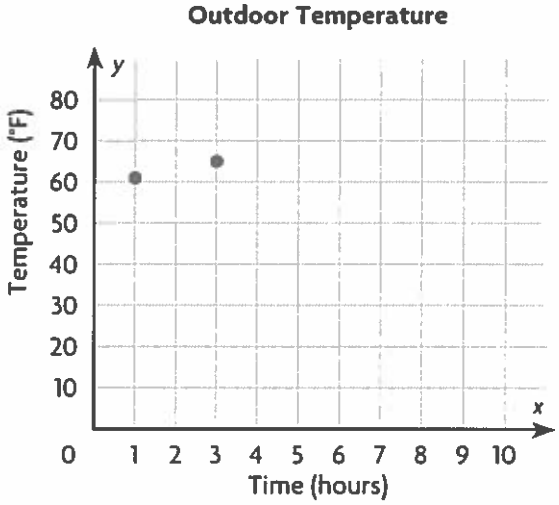
b. How would the ordered pairs be different if the outdoor temperature were recorded every hour for 4 consecutive hours?

_____

_____

_____

_____



Problem Solving Real World

2.

Windows Repaired					
Day	1	2	3	4	5
Total Number Repaired	14	30	45	63	79

a. Write the ordered pairs for each point.

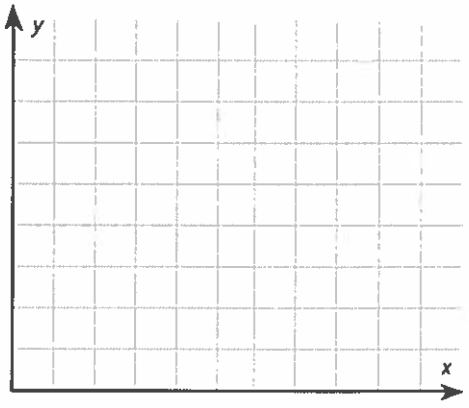
_____

_____

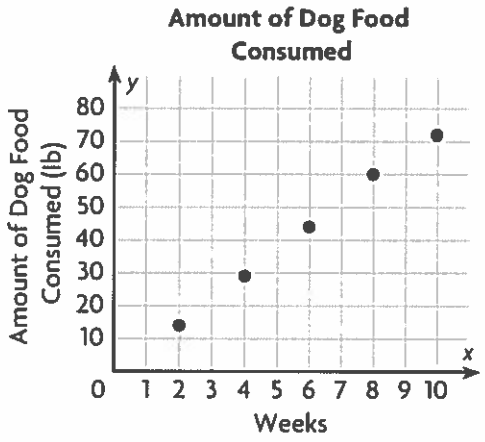
b. What does the ordered pair (2, 30) tell you about the number of windows repaired?

_____

_____



Lesson Check (5.G.2)



1. About how many weeks did it take for the dog to consume 45 pounds of food?

2. By the end of Week 8, how much food had the dog consumed?

Spiral Review (5.OA.2, 5.NBT.6, 5.NF.2)

3. A restaurant chain ordered 3,940 pounds of rice in 20-pound bags. About how many 20-pound bags of rice did the chain order?

4. The population of Linton is 12 times as great as the population of Ellmore. The combined population of both towns is 9,646 people. What is the population of Linton?

5. Timothy needs $\frac{1}{2}$ cup of bread crumbs for a casserole and $\frac{1}{3}$ cup of bread crumbs for the topping. How many cups of bread crumbs does Timothy need?

6. Jessie bought 3 T-shirts for $6 each and 4 T-shirts for $5 each. What expression can you use to describe what Jessie bought?

Name _____

assume	guarantee	nominate	obviously
sympathy	weakling	rely	supportive

Write a complete sentence to answer each question below. In your answer, use the vocabulary word in bold.

1. Why is being **supportive** a good quality in a friend? _____

2. What might make you **nominate** someone for class president? _____

3. What do you **assume** when an expert speaks about his or her work? _____

4. What is true about a person who is **obviously** rushing somewhere? _____

5. What kind of person has **sympathy** for other people's problems? _____

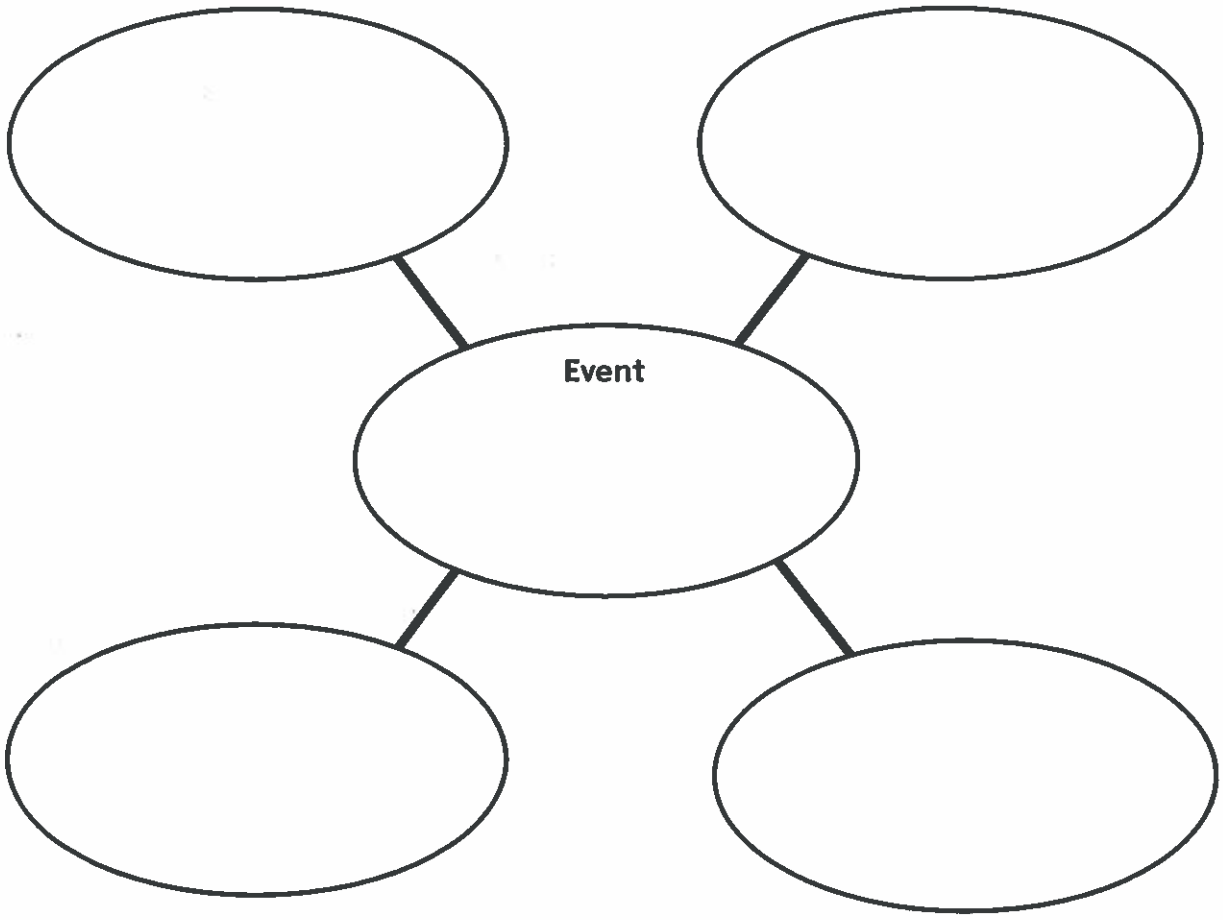
6. What is something that can help **guarantee** that you will get good grades?

7. Why wouldn't a **weakling** make a very good weightlifter? _____

8. What is a way that you can **rely** upon a good umbrella? _____

Name _____

Read the selection. Complete the compare and contrast graphic organizer.



Name _____

A. Use the subordinating conjunction in parentheses to combine the two clauses into one complex sentence. Write the new sentence on the line provided.

1. Mom missed the bus/she had to walk to work (because)

_____

2. she got to the store/the clock struck nine (as)

_____

3. the manager wasn't there/she opened the store herself (since)

_____

_____

4. an hour had passed/she called the manager at home (after)

_____

5. the manager laughed/it was a holiday, and the store was closed for the day (because)

_____

_____

B. Combine the two sentences into one by creating an appositive out of the second sentence. Write the new sentence on the line provided.

6. A new bakery has opened near the mall. The bakery is called BuzzyBee.

_____

7. They offer samples of their specialty. Their specialty is honey muffins.

_____

8. I will eat there with my cousins. My cousins' names are Alix and Ira.

_____

Line Graphs

A **line graph** uses a series of line segments to show how a set of data changes over time. The **scale** of a line graph measures and labels the data along the axes. An **interval** is the distance between the numbers on an axis.

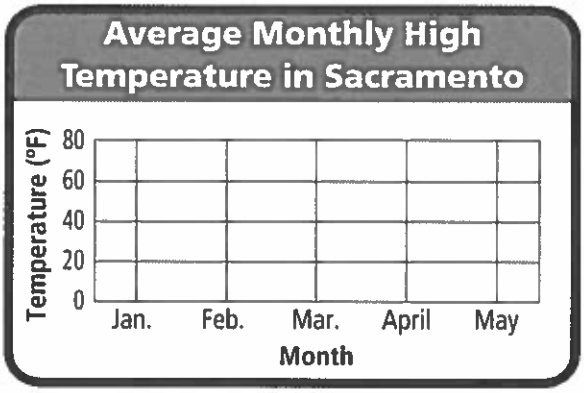
Use the table to make a line graph.

Average Monthly High Temperature in Sacramento, California

Month	Jan.	Feb.	Mar.	April	May
Temperature (°F)	53	60	65	71	80

- Write a title for your graph. In this example, use **Average Monthly High Temperature in Sacramento.**
- Draw and label the axes of the line graph. Label the horizontal axis **Month.** Write the months. Label the vertical axis **Temperature (°F).**
- Choose a scale and an interval. The range is 53–80, so a possible scale is 0–80, with intervals of 20.
- Write the related pairs of data as ordered pairs: (Jan, 53); (Feb, 60); (Mar, 65); (April, 71); (May, 80).

1. Make a line graph of the data above.



Use the graph to determine between which two months the least change in average high temperature occurs.

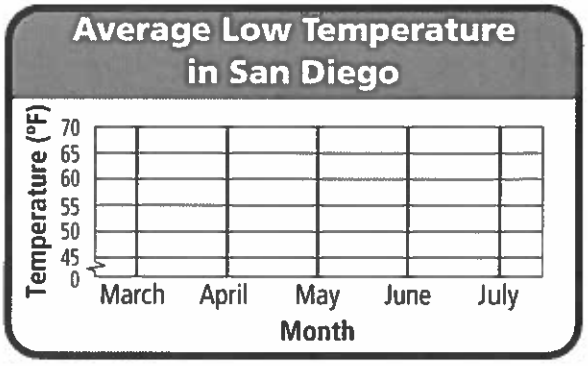
_____

_____

2. Make a line graph of the data in the table.

Average Low Temperature in San Diego, California

Month	Mar.	April	May	June	July
Temperature (°F)	51	51	60	62	66



Use the graph to determine between which two months the greatest change in average low temperature occurs.

_____

Name _____

Read the passage. Use the make predictions strategy to check your understanding.

Nancy's First Interview

Nancy poured herself a bowl of cornflakes as her father finished a
12 telephone call. "You're really putting me on the spot," he said to the
25 person at the other end of the line. "I already have a commitment today,
39 Jim." After a few moments, Mr. Jenson sighed and hung up the telephone.
52 Nancy looked up from her breakfast, preparing for bad news.

62 Her father gave her a sad smile. "I'm really sorry, Nance, but I have
76 to work today. We'll have to reschedule our fishing trip." Mr. Jenson was
89 a reporter for the city newspaper. After the stock market crash of 1929,
102 his newspaper had laid off most of the reporters. Four years later, they
115 still had only a skeleton crew. He was glad to have a job, but he was
131 overworked and underpaid.

134 Nancy shrugged, trying not to look too upset. She wished she could do
147 something to comfort her dad. The last thing she wanted was to make him
161 feel guilty. "It's okay, Dad," she said, forcing a cheerful smile.

172 "The worst part is that our photographers are on other assignments,"
183 he grumbled, shaking his head. He paused for a moment, lost in thought.
196 "Nancy," he said, "do you remember when I showed you how to use
209 my camera?" She nodded. "Do you think you could help me today? I
222 can't carry all of the equipment by myself, and we'd get to spend some
236 time together."

238 Nancy jumped up from her chair and ran to her bedroom to change out
252 of her fishing clothes. "Make tracks," her dad called down the hallway.
264 "We're in a hurry!"

Name _____

As Mr. Jenson navigated their car out of town, he told Nancy about the assignment. They were going to interview the Carter family, migrant workers who had moved from Oklahoma to California in search of work. Also known as "Okies," these families were escaping a life of drought and poverty.

Library of Congress Prints and Photographs Division

During the Great Depression of the 1930s, migrant workers packed their few belongings and headed for California.

Mr. Jenson pulled up to a crooked shanty on the edge of a farm. A lanky man and a rotund woman greeted them.

Nancy and her father followed the Carters into the shabby house. All of their belongings were in one room: two dingy mattresses, a wobbly kitchen table with four mismatched chairs, and a small camping stove.

The adults sat around the table and Nancy hovered nervously near her father. She felt self-conscious; her family's small house seemed like a mansion compared to this place.

Mr. Jenson started the interview. "What brought you folks to California?" he asked, opening his notebook.

"Work," Mr. Carter said. He explained that they had owned a farm in Oklahoma, but lost it when costs rose. "Upkeep cost an arm and a leg, and the drought killed our chances of a good crop."

"Do you miss home?" Nancy blurted. She looked down, embarrassed. She knew better than to interrupt, but her father gave her an encouraging smile.

"There's nothing to miss," Mrs. Carter said, shrugging. "The only thing we have left in this world is each other."

Nancy was bursting with questions, and the Carters answered them all. She realized that her family wasn't that much different from the Carters. When times were tough, families had to support one another.

After the interview, Nancy's father helped her set up the camera so she could take a few photos. Mr. Carter nodded at her and said, "You've got a good little reporter there."

Mr. Jenson grinned and ruffled Nancy's hair. "I taught her everything she knows," he said. "She's a chip off the old block."

Name _____

A. Reread the passage and answer the questions.

1. **Why does Nancy go with Mr. Jenson on his newspaper assignment?**

_____

_____

2. **How does the Carters' home contrast with the Jensons' house?**

_____

_____

3. **What similarities does Nancy see when she compares her own family with the Carters?**

_____

_____

4. **When Mr. Jenson says that Nancy is a "chip off the old block," is he comparing or contrasting the two of them? Explain.**

_____

_____

B. Work with a partner. Read the passage aloud. Pay attention to expression and phrasing. Stop after one minute. Fill out the chart.

	Words Read	-	Number of Errors	=	Words Correct Score
First Read		-		=	
Second Read		-		=	

Name _____

Afternoons Alone

Rusty moped around the empty house. Grandpa had been helping to build tanks at the factory since America declared war against Japan. Without him, there was nobody to fish with. There was no one to talk with in the afternoon.

Yesterday, his friend Corey had told Rusty, "Every day, after school, I clean house and do chores. Then, when Mom returns home from the tank factory, we can have some fun time together."

"How keen it will be when the war ends!" exclaimed Rusty.

"We'll have lots of family time then," Corey said excitedly.

Rusty eyed the dirty windows in his house and said to himself, "Maybe I can help with some chores, too."

Answer the questions about the text.

1. **How do you know that this text is historical fiction?**

_____

_____

2. **What events in the text are typical of the time period in which the text is set?**

_____

_____

3. **Write an example of dialect in the text and tell what it means.**

_____

_____

Name _____

Line Graphs

COMMON CORE STANDARDS—5.G.2
Graph points on the coordinate plane to solve real-world and mathematical problems.

Use the table for 1–5.

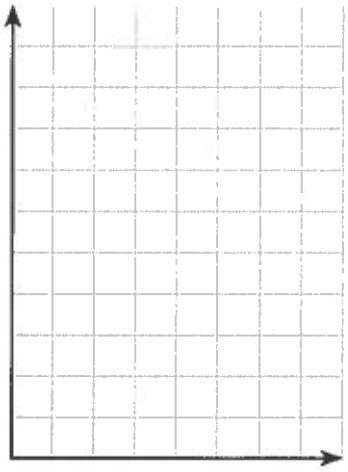
Hourly Temperature							
Time	10 A.M.	11 A.M.	12 noon	1 P.M.	2 P.M.	3 P.M.	4 P.M.
Temperature (°F)	8	11	16	27	31	38	41

1. Write the related number pairs for the hourly temperature as ordered pairs.
   (10, 8);

2. What scale would be appropriate to graph the data?

3. What interval would be appropriate to graph the data?

4. Make a line graph of the data.



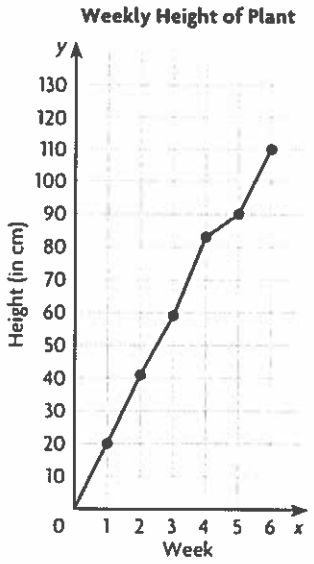
5. Use the graph to find the difference in temperature between 11 A.M. and 1 P.M.

Problem Solving Real World

6. Between which two hours did the least change in temperature occur?

7. What was the change in temperature between 12 noon and 4 P.M.?

Lesson Check (5.G.2)



1. How many centimeters did the plant grow in the first three weeks?

2. Between which two weeks did the plant grow the least?

Spiral Review (5.OA.2, 5.NBT.6, 5.NF.6, 5.NF.7c)

3. Write an expression using the Distributive Property to find the product of 7×63.

4. Ali multiplies 3 numbers using the expressions $a \times (b \times c)$ and $(a \times b) \times c$. What property of multiplication does Ali use?

5. A student athlete runs $3\frac{1}{3}$ miles in 30 minutes. A professional runner can run $1\frac{1}{4}$ times as far in 30 minutes. How far can the professional runner run in 30 minutes?

6. A recipe for salad dressing calls for $\frac{1}{4}$ cup of vinegar. You have 4 cups of vinegar. How many batches of salad dressing could you make with the vinegar?

Name _____

Read each passage. Underline the idiom in each one. Then, on the lines below the passage, restate the idiom in your own words.

1. "You're really putting me on the spot," he said to the person at the other end of the line. "I already have a commitment today, Jim."

_____

_____

2. After the stock market crash of 1929, his newspaper had laid off most of the reporters. Four years later, they still had only a skeleton crew. He was glad to have a job, but he was overworked and underpaid.

_____

_____

3. Nancy jumped up from her chair and ran to her bedroom to change out of her fishing clothes. "Make tracks," her dad called down the hallway. "We're in a hurry!"

_____

_____

4. He explained that they had owned a farm in Oklahoma, but lost it when costs rose. "Upkeep cost an arm and a leg, and the drought killed our chances of a good crop."

_____

_____

5. Mr. Jenson grinned and ruffled Nancy's hair. "I taught her everything she knows," he said. "She's a chip off the old block."

_____

_____

Name _____

stationery	presents	pray	colonel	manner
pier	council	presence	waist	suite

A. Read each pair of words below. Circle the word that is a homophone of a word from the box above. Then write a word from the box to form a homophone pair.

1. sweet, sweat _____
2. stationing, stationary _____
3. count, counsel _____
4. manor, mansion _____
5. kernel, color _____

B. Choose three homophone pairs from above. Write a sentence using each pair of words.

6. _____

_____

7. _____

_____

8. _____

_____

Name _____

A. Read the draft model. Use the questions that follow the draft to help you think about adding transitions to help connect ideas.

Draft Model

We help clean up the local park. I pick up trash. My mom gathers items for recycling. We take everything to the waste collection site. We head home.

1. How are the ideas in the second and third sentences of the paragraph related?
2. What transition words could you add to the third sentence to link it to the second sentence?
3. What transition could you place at the beginning of the last sentence to show when it happens?

B. Now revise the draft by adding transitions to help connect ideas and to help readers follow what happens at the park.

Name _____

Bree wrote the paragraphs below using text evidence from *Bud, Not Buddy* and "Musical Impressions of the Great Depression" to respond to the prompt: *Add an event to the story in which Bud and Miss Thomas discuss an upcoming jazz concert that is part of the Federal Music Project of 1935.*

Miss Thomas stood at the window smiling. Bud watched her, wondering what she was thinking. "Miss Thomas," he asked, "is everything OK?"

"Yes, Bud," she said. "We're going to play a concert in Detroit next month, and Mr. Calloway wants you to travel with us."

Bud was as quiet as a goldfish. He didn't know what to say, but slowly a big grin spread across his face.

"It's a concert for the people and part of President Roosevelt's Works Progress Administration," Miss Thomas explained. "We're playing to support the Federal Music Project of 1935. It's a great program that helps musicians find work."

"Wow!" Bud said excitedly, "Who else is playing?"

"Well, even though he isn't being paid like the other musicians, Count Basie has agreed to help out with the cause," Miss Thomas responded with a smile.

"A night of live jazz with one of the best!" Bud said and jumped happily. "Do the guys know yet?" he asked.

"Only you and Mr. Calloway. However, I'd like you to do me a favor," she said. "Will you tell the rest of the group?"

"I sure will," Bud said. He was out the door in a flash.

Reread the passage. Follow the directions below.

1. **Circle** the paragraph that includes the *most* text evidence from "Musical Impressions of the Great Depression."

2. **Draw a box** around the complex sentence that appears in the model.

3. **Underline** the transitional word Bree used to signal contrast.

4. **Write** the idiom Bree included in her writing on the line.

_____

Name _____

Numerical Patterns

A soccer league has 7 teams. How many players are needed for 7 teams? How many soccer balls are needed by the 7 teams?

	Number of Teams	1	2	3	4	7
Add 8.	**Number of Players**	8	16	24	32	56
Add 4.	**Number of Soccer Balls**	4	8	12	16	28

Step 1 Find a rule that could be used to find the number of players for the number of teams.

Think: In the sequence 8, 16, 24, 32, you add 8 to get the next term.

As the number of teams increases by 1, the number of players increases by 8. So the rule is to add 8.

Step 2 Find a rule that could be used to find the number of soccer balls for the number of teams.

Think: In the sequence 4, 8, 12, 16, you add 4 to get the next term.

As the number of teams increases by 1, the number of soccer balls needed increases by 4. So the rule is to add 4.

Step 3 For 7 teams, multiply the number of players by $\frac{1}{2}$ to find the number of soccer balls.

So, for 7 teams, 56 players will need 28 soccer balls.

Complete the rule that describes how one sequence is related to the other. Use the rule to find the unknown term.

Number of Teams	1	2	3	4	8	10
Number of Players	15	30	45	60	120	
Number of Bats	5	10	15	20		50

1. Divide the number of players by _____ to find the number of bats.

2. Multiply the number of bats by _____ to find the number of players.

Name _____

- A **complex sentence** contains an independent clause and a dependent clause.
- **Dependent clauses** are introduced by **subordinating conjunctions**, such as *while, because, if,* and *although*.
- Dependent clauses can also be introduced by **relative pronouns**, such as *who, whose, which, whom*, and *that*, and **relative adverbs**, such as *where, when*, and *why*.

Read each sentence. Underline the dependent clause. Then circle the introductory word in that clause. Finally, on the line provided, write whether the introductory word is a *subordinating conjunction, relative pronoun*, or *relative adverb*.

1. I volunteer at the animal shelter when I have free time. _____
2. I help care for pets that are awaiting adoption. _____
3. I walk them outside while their cages are being cleaned. _____
4. If I have time, I help prepare their meals. _____
5. The manager, who is also a veterinarian, is one of my heroes. _____
6. She runs the shelter because she loves animals. _____
7. I encounter many challenges while I am volunteering. _____
8. I give special care to the animals whose needs are the greatest. _____
9. Although I have worked there for years, I still have much to learn.

   _____
10. When I grow up, I want to study medicine as well. _____

Name _____

- A **dependent clause** in a complex sentence can come after an independent clause.
- A dependent clause in a complex sentence can also come before an independent clause, separated by a comma.

Use the word in parentheses to combine the two clauses into one complex sentence. Write the new sentence on the line provided.

1. I went shopping/I made a list (before)

_____

2. I created categories/the categories matched the aisles in the store (that)

_____

_____

3. I got to the store/I realized I had forgotten the list (when)

_____

4. I tried to remember/I had written down (what)

_____

5. I was thinking about that/you called on the phone and read me the list (while)

_____

_____

Name _____

- An **essential clause** is necessary to identify a person or thing that is being described. It is not separated by commas.
- A **nonessential clause** is not necessary to the meaning of the sentence. Commas are needed to set apart the clause.

Read the two clauses. Combine them into one sentence and write the new sentence on the line provided.

1. the day was a Saturday/that I was born

_____

2. my parents were well prepared/who were living in Chicago

_____

3. they had rented a house/that already had a nursery

_____

4. the neighborhood had many children/which was near the lake

_____

5. one of them would become my best friend/who was born a year later

_____

_____

Name _____

- When a **dependent clause** in a complex sentence comes before an independent clause, it is separated by a comma.
- An **essential clause** is necessary to identify a person or thing that is being described. It is not separated by commas.
- A **nonessential clause** is not necessary to the meaning of the sentence. Commas are needed to set apart the clause.

Proofread the paragraph. On the lines below, correct mistakes in complex sentence construction and comma usage.

The original settlers of our town who had arrived by boat came from Holland. The area, that they settled, was mostly forest at the time. After they chopped down the trees they created fields and pastures. Farming, which was difficult at first became their main source of food. Because they faced shortages in winter they began to hunt and fish as well. The fact that wildlife was plentiful, helped them survive.

Name _____

Date _____

Land of the Midnight Sun

Have you ever heard of the midnight Sun? If you live near the Arctic Circle, it's an annual occurrence. The Arctic Circle is an imaginary line that circles the globe at about 66° N latitude and defines the Arctic region. Within the arctic are parts of Greenland, Canada, Russia, Norway, and the United States. Once a year, on the summer solstice, the Sun does not set, even at midnight—thus the name, midnight Sun. This happens each year on or around June 21.

Much of Alaska lies within the Arctic Circle. Barrow is the northernmost town in Alaska. In Barrow, from about May 10 until August 2, the Sun doesn't set. But winter is a different story for the people of Barrow. From November 18 to January 24, the Sun doesn't rise. Could you imagine going to school and coming home when it is dark? What about sleeping when the Sun is still shining? Places south of Barrow also experience extremely long summer days and extremely short winter ones. Take Anchorage, Alaska, for example. On July 1, the Sun rises at 4:28 in the morning. It doesn't set until 11:35 at night. That's 19 hours of daylight! In contrast, on January 1, the Sun rises at 10:10 the morning and sets at 3:54 p.m. That's less than six hours of daylight.

Why such differences in the number of daylight hours? It has to do with Alaska's location on Earth and Earth's tilt as it revolves around the Sun. Earth is tilted on its axis at approximately 23°. On the day of the summer solstice, the area inside the Arctic Circle is pointed most directly at the Sun. Everywhere inside the circle experiences 24 hours of sunlight. As summer changes to fall, Earth moves farther along in its orbit. The Arctic Circle points less and less directly at the Sun. The hours of daylight decrease. Finally, on the winter solstice, the Sun no longer shines directly on the Arctic Circle. On this day, the Sun doesn't rise above the horizon anywhere above the Arctic Circle.

Questions:

1. Why doesn't a state such as Wyoming experience the midnight Sun?

2. How do Earth's revolution and the tilt of its axis affect how sunlight falls on the planet?

3. Does everyone on Earth see the Sun appear to move across the sky in the same way? Explain.

Credit: Senthil Raman/Shutterstock.com

Name _____

Numerical Patterns

COMMON CORE STANDARD—5.OA.3
Analyze patterns and relationships.

Complete the rule that describes how one sequence is related to the other. Use the rule to find the unknown term.

1. Multiply the number of laps by 50 to find the number of yards.

   Think: The number of yards is 50 times the number of laps.

Swimmers	1	2	3	4
Number of Laps	4	8	12	16
Number of Yards	200	400	600	800

2. Multiply the number of pounds by _____ to find total cost.

Boxes	1	2	3	4	6
Number of Pounds	3	6	9	12	18
Total Cost ($)	12	24	36	48	

3. Multiply the number of hours by _____ to find the number of miles.

Cars	1	2	3	4
Number of Hours	2	4	6	8
Number of Miles	130	260	390	

4. Multiply the number of hours by _____ to find the amount earned.

Days	1	2	3	4	7
Number of Hours	8	16	24	32	56
Amount Earned ($)	96	192	288	384	

Problem Solving (Real World)

5. A map's key shows that every 5 inches on the map represents 200 miles of actual distance. Suppose the distance between two cities on the map is 7 inches. What is the actual distance between the two cities? Write the rule you used to find the actual distance.

6. To make each costume, Rachel uses 6 yards of material and 3 yards of trim. Suppose she uses a total of 48 yards of material to make several costumes. How many yards of trim does she use? Write the rule you used to find the number of yards of trim.

Lesson Check (5.OA.3)

Use the table below to answer questions 1 and 2.

Term Number	1	2	3	4	...	6
Sequence 1	4	8	12	16	...	24
Sequence 2	12	24	36	48	...	?

1. What rule could you write that relates Sequence 2 to Sequence 1?

2. What is the unknown number in Sequence 2?

Spiral Review (5.OA.1, 5.NBT.1, 5.NF.2, 5.NF.3)

3. What is the value of the following expression?

$$40 - (3 + 2) \times 6$$

4. What is the value of the digit 9 in the number 597,184?

5. What is the best estimate for the sum of $\frac{3}{8}$ and $\frac{1}{12}$?

6. Terry uses 3 cups of pumpkin seeds to decorate the tops of 12 loaves of bread. She puts an equal amount of seeds on each loaf. How many cups of pumpkin seeds does she put on each loaf of bread?

Name _____

A. Read each sentence. Underline the dependent clause. Then circle the introductory word in that clause. Finally, on the line provided, write whether the introductory word is a *subordinating conjunction, relative pronoun*, or *relative adverb.*

1. We swim in the river that flows past our house. _____
2. Boats sometimes travel where the water is deepest. _____
3. Because they are far from shore, they pose no danger.

   _____
4. We can go skating if the water freezes solid enough in cold weather.

   _____
5. Our town hired a park manager who tests the ice often for safety. _____

B. Read the two clauses. Combine them into one sentence and write the new sentence on the line provided.

6. the game is similar to hockey/that I invented

   _____
7. while hockey uses hockey sticks/"broomball" uses brooms

   _____
8. we replaced pucks with soccer balls/which are too hard to hit

   _____
9. each team has four players and a goalie/who doesn't wear skates

   _____
10. the first team wins the game/that scores three goals

    _____

Name _____

atmosphere	variations	receding	noticeably
stability	decays	gradual	impact

Finish each sentence using the vocabulary word provided.

1. **(atmosphere) The weather balloon they launched** _____

2. **(decays) When food sits out for too long,** _____

3. **(gradual) The airplane began** _____

4. **(impact) People can have** _____

5. **(noticeably) The house was** _____

6. **(receding) I noticed** _____

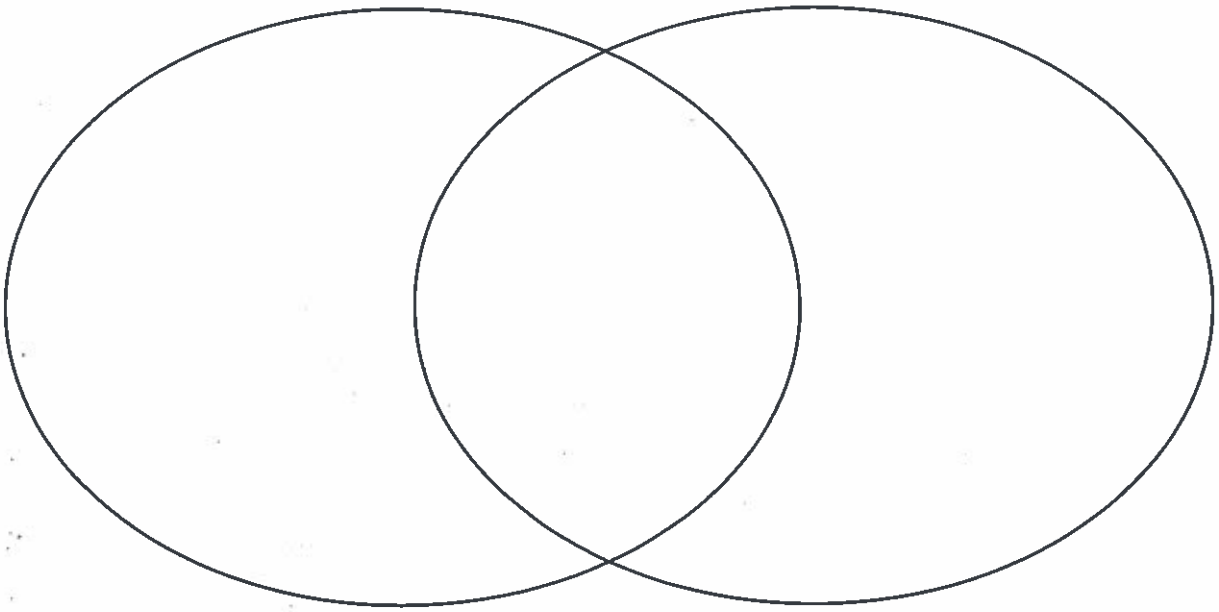
7. **(stability) Three wheels give a tricycle** _____

8. **(variations) We were amazed to see** _____

Comprehension: **Compare and Contrast Graphic Organizer**

Name _____

Read the selection. Complete the compare and contrast graphic organizer.



Name _____

Problem Solving • Find a Rule

Samantha is making a scarf with fringe around it. Each section of fringe is made of 4 pieces of yarn with 2 beads holding them together. There are 42 sections of fringe on Samantha's scarf. How many wooden beads and how many pieces of yarn are on Samantha's scarf?

Read the Problem	Solve the Problem
What do I need to find? Possible answer: I need to find the number of beads and the number of pieces of yarn on Samantha's scarf.	
What information do I need to use? Possible answer: I need to use the number of sections on the scarf, and that each section has 4 pieces of yarn and 2 beads.	
How will I use the information? I will use the information to search for patterns to solve a simpler problem.	

Sections of Fringe	1	2	3	4	6	42
Number of Beads	2	4	6	8	12	84
Pieces of Yarn	4	8	12	16	24	168

Possible answer: I can multiply the number of sections by 2 to find the number of beads. Then, I can multiply the number of sections by 4, or the number of beads by 2, to find the number of pieces of yarn. So, Samantha's scarf has 2 × 42, or 84 beads, and 4 × 42, or 168 pieces of yarn.

1. A rectangular tile has a decorative pattern of 3 equal-sized squares, each of which is divided into 2 same-sized triangles. If Marnie uses 36 of these tiles on the wall behind her kitchen stove, how many triangles are displayed?

2. Leta is making strawberry-almond salad for a party. For every head of lettuce that she uses, she adds 5 ounces of almonds and 10 strawberries. If she uses 75 ounces of almonds, how many heads of lettuce and how many strawberries does Leta use?

Name _____

Read the passage. Use the ask and answer questions strategy to help you understand what you read.

Of Floods and Fish

The Mississippi River flows more than two thousand miles from Minnesota to the Gulf of Mexico. Every few years, it floods. In April and May, 2011, a combination of melting snow and falling rain along the upper part of the river caused the lower part of the river to overrun its banks.

Floods cause widespread destruction. Floodwaters damage and sometimes knock down buildings. They destroy farmland and animal habitats. With nowhere to live, the animals often move into populated areas. What about the fish? Because they live in water, shouldn't a flood be good for them? As it turns out, floods can hurt fish populations just as they harm many animals that live on the land.

The Dead Zone

The Mississippi floodwaters proved most detrimental to the fish and other ocean life in the Gulf of Mexico. The Mississippi River is made of fresh water. The Gulf is made of salt water. The extra river water that flowed into the Gulf endangered the native saltwater fish. More harmful, though, were the pollutants the river water carried with it. As the swollen Mississippi washed over farmland, it picked up the fertilizer and pesticides that farmers had used on the land and crops. These chemicals are poisonous to ocean life. The river then dumped these poisons into the Gulf. The extra river water and the farm runoff created a dead zone along the coast. A dead zone is an area of water that does not have enough oxygen to support life.

Name _____

Threat of Invasion

Aaron Roeth Photography

The flooding of the Mississippi River posed a different threat to the fish that lived in it: the spread of an invasive species called Asian carp. Asian carp were brought to fish farms in the United States in the 1970s. A flood washed some of them from the farms into parts of the Mississippi River. In these places, the carp took over, threatening the native fish. When the Mississippi flooded again in 2011, scientists feared that the Asian carp would spread even farther.

Supporting Life

Despite these problems, though, the freshwater fish that lived in the Mississippi River fared much better than those in the Gulf. For these Mississippi River fish, the extra river water provided advantages that helped them breed and survive.

As the river grew, so did the available habitat for the river's fish. River fish usually stay along the edges of a river, where the water is slower and shallower. The underwater plants and overhanging branches in these areas provide protection and food. When the Mississippi flooded, it increased the amount of shallow water on the river's edges. This gave the fish more water to swim in and more places to hide from predators. The spreading water also introduced more food. These factors improved the fish's chances of survival.

The expanded habitat provided more benefits than extra hiding places and food sources. It also created more areas for fish to spawn. The newly flooded areas allowed fish to lay eggs safely, away from predators and other dangers. This, in turn, meant more new fish hatched successfully.

If the flooding of the Mississippi teaches any lesson, it is that changes in the environment can affect living things in surprising ways. Despite its harmful effects, some animals benefitted from the change.

Name _____

A. Reread the passage and answer the questions.

1. **What comparison does the phrase *just as* indicate in the second paragraph?**

_____

_____

2. **In what way are the main ideas of the sections called "The Dead Zone" and "Threat of Invasion" alike?**

_____

_____

_____

3. **Are the ideas in the section "Supporting Life" similar to or different from the ideas in the previous two sections? Explain.**

_____

_____

_____

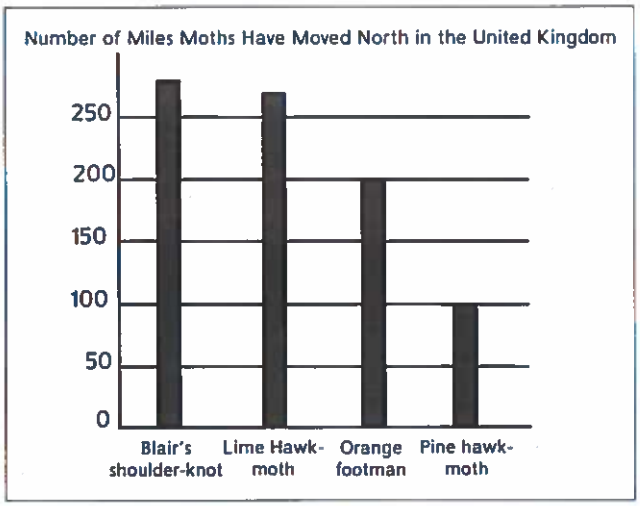
B. Work with a partner. Read the passage aloud. Pay attention to rate. Stop after one minute. Fill out the chart.

	Words Read	-	Number of Errors	=	Words Correct Score
First Read		-		=	
Second Read		-		=	

Name _____

Moths and Changes in Weather

Scientists study moths to see how quickly they can adapt to climate change. Some moths adapt better than others. Some species of moths need cool weather and move north when the weather gets warmer. Moths already living in cool areas may not be able to find a cooler place to go. Warm weather affects the food caterpillars eat. Some caterpillars adapt to climate change and food supplies by hatching earlier or later than usual. It is hard to predict how climate change will affect moths over time.



Answer the questions about the text.

1. **How do you know this is expository text?**

_____

_____

2. **Is the heading a strong heading for the text? Why or why not?**

_____

_____

3. **What text feature does this text include?**

_____

4. **What do you learn from the text feature and its title?**

_____

_____

Name _____

Problem Solving • Find a Rule

COMMON CORE STANDARD—5.OA.3
Analyze patterns and relationships.

Write a rule and complete the table. Then answer the question.

1. Faye buys 15 T-shirts, which are on sale for $3 each. How much money does Faye spend?

Number of T-Shirts	1	2	3	5	10	15
Amount Spent ($)	3	6	9			

Possible rule:
Multiply the number of T-shirts by 3.

The total amount Faye spends is $45.

2. The Gilman family joins a fitness center. They pay $35 per month. By the 12th month, how much money will the Gilman family have spent?

Number of Months	1	2	3	4	5	12
Total Amount of Money Spent ($)	35	70				

Possible rule:
_____
_____

The Gilman family will have spent _____.

3. Hettie is stacking paper cups. Each stack of 15 cups is 6 inches high. What is the total height of 10 stacks of cups?

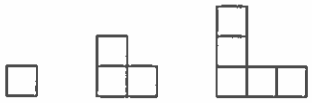
Number of stacks	1	2	3	10
Height (in.)	6	12	18	

Possible rule:
_____
_____

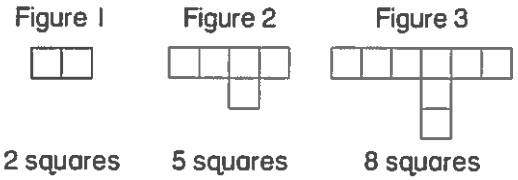
The total height of 10 stacks is _____.

Lesson Check (5.OA.3)

1. How many squares are needed to make the eighth figure in the pattern?



2. What expression could describe the number of squares in the next figure in the pattern, Figure 4?



Spiral Review (5.OA.3, 5.NBT.2, 5.NBT.7, 5.NF.2)

3. Talia stores her collection of stickers equally in 7 sticker albums. If she has 567 stickers, how many stickers are in each album?

4. Ms. Angelino made 2 pans of lasagna and cut each pan into twelfths. Her family ate $1\frac{1}{12}$ pans of lasagna for dinner. How many pans of lasagna were left?

5. What is the next number in this pattern?

0.54, 0.6, 0.66, 0.72, ■, . . .

6. How do you write 100 as a power of 10?

Name _____

Read each passage. Underline the context clues that help you figure out the meaning of each word in bold. Then write the word's meaning on the line.

1. Every few years, it floods. In April and May, 2011, a combination of melting snow and falling rain along the upper part of the river caused the lower part of the river to **overrun** its banks.

_____

2. Floods cause widespread destruction. Floodwaters damage and sometimes knock down buildings. They destroy farmland and animal **habitats**. With nowhere to live, the animals often move into populated areas.

_____

3. The Mississippi floodwaters proved most **detrimental** to the fish and other ocean life in the Gulf of Mexico. The Mississippi River is made of fresh water. The Gulf is made of salt water. The extra river water that flowed into the Gulf endangered the native saltwater fish. More harmful, though, were the pollutants the river water carried with it.

_____

4. As the swollen Mississippi washed over farmland, it picked up the fertilizer and **pesticides** that farmers had used on the land and crops. These chemicals are poisonous to ocean life.

_____

5. The flooding of the Mississippi River posed a different threat to the fish that lived in it: the spread of an **invasive** species called Asian carp. Asian carp were brought to fish farms in the United States in the 1970s. A flood washed some of the carp from the farms into parts of the Mississippi River. In these places, the carp took over, threatening the native fish.

_____

6. The expanded habitat provided more benefits than extra hiding places and food sources. It also created more areas for fish to **spawn**. The newly flooded areas allowed the fish to lay their eggs safely, away from predators and other dangers.

_____

Name _____

dis- means "not," "absence of," or "opposite of"

in- means "not" or "opposite of"

mis- means "wrong" or "not"

pre- means "before"

Add a prefix from the box to complete the word in each sentence below. Use context clues to help you decide which prefix to use.

1. She will _____ wash the fabric to make sure it will not shrink.
2. Please remember to _____ connect from the Internet before you turn off the computer.
3. Their visitors will stay for an _____ definite amount of time.
4. He felt some _____ comfort when he hurt his leg.
5. If you do not speak clearly, they will _____ understand your directions.
6. She has little money, so she hopes to find an _____ expensive gift.
7. The teacher will _____ view the video before showing it to the class.
8. A friendship can be harmed if there is _____ trust between two people.
9. Always _____ heat the oven before you bake bread.
10. I _____ approve of the way they are behaving.

Building a Bridge

by R. Howard

Summer vacation had just begun, and Alex and Maria were ready to spend all day outside. They decided to walk to the neighborhood park, where there was a river that they liked to swim in when it was particularly hot. Alex and Maria began to sweat as they walked, even though their house was only ten minutes away from the park's entrance.

When they got to the river, they saw that it was too shallow to swim in. The rocks that made up the bed of the river were even poking out of the water in some places, glistening in the sun. Alex and Maria were frustrated. On the other side of the river, about fifty yards away, and in a welcoming courtyard, there was a fountain spewing water in beautiful arcs.

"We should go play in the fountain," Maria said.

"How will we get there?" asked Alex.

They thought for a moment. They knew if they walked upriver, they would eventually come to a walkway that crossed the river, but it was so hot, and they were eager to get to the fountain.

Maria looked around the grassy riverbank and noticed a few logs and branches lying close to

the water. "We could build a bridge!" she said. She ran over to a thick tree branch that looked long enough to be placed across the river. Together, she and Alex hefted the branch onto their shoulders and walked it to the water. Here, they stopped. How would they get the branch across?

Maria suggested throwing it down into the water and seeing if it reached the other side. That seemed imprecise to Alex - what if the branch did not reach the other side of the river, and got stuck or swept away by the water? Then they would be unable to walk all the way across the river.

Maria wondered if they could measure the distance from the riverbank they stood on to the other shore. They put the log carefully down and decided to test the distance with lighter, thinner branches. They found a few wispy branches by the spot where they had first found the log, and they tied the branches together using their hair bands.

On their first attempt, they tied two branches together and went back to the river to test the length. The branches barely reached the center of the swirling water. After tying two more branches together to the initial branches, Alex and Maria were able to get the thin makeshift model bridge to touch the far bank.

"Hooray!" Maria said. "Now we know how long the log needs to be."

They set the tied branches on the ground next to the log. The log was luckily the exact length of the tied branches. Now Alex and Maria had to figure out how to make sure the log was secure on both sides of the bank before they walked across it to reach the other side of the river.

"I know!" Alex said. She began to gather thinner branches, like the ones they had tied together, which were pliable and easy to bend. She twisted them together into a tight bundle, then laid them horizontally across the edges of the log. Then she and Maria hauled some of the stones out of the river and placed them on the branches on either side of the log. In this way, they were able to stabilize the log-at least on one side-in order to run across.

When Alex and Maria got to the other side of the river, they secured the other side of the log with more branches and rocks, and looked back at their handiwork. It had been a good day's work, but now they were free to enjoy the cool water in the fountain.

Name: _____ Date: _____

1. What did Alex and Maria want to build?

A. a pool

B. a car

C. a fountain

D. a bridge

2. What is the main challenge faced by the characters in this story?

A. how to swim in a river so shallow that rocks are poking out of the water in some places

B. how to get from one side of the river to the other without using the walkway

C. how to find the distance from one side of the river to the other without measuring tools

D. how to make sure the log they use for their bridge is secure on both sides of the river

3. Which of the following sentences from the story provides evidence that Maria was deliberate and thoughtful in her actions?

A. "Maria looked around the grassy riverbank and noticed a few logs and branches lying close to the water."

B. "Maria wondered if they could measure the distance from the riverbank they stood on to the other shore."

C. "She ran over to a thick tree branch that looked long enough to be placed across the river."

D. "Alex and Maria were frustrated."

4. Which sentence from the text supports the idea that Alex and Maria used teamwork to build the bridge?

A. "Alex and Maria began to sweat as they walked, even though their house was only ten minutes away from the park's entrance."

B. "Together, she and Alex hefted the branch onto their shoulders and walked it to the water."

C. "'I know!' Alex said. She began to gather thinner branches, like the ones they had tied together, which were pliable and easy to bend."

D. "'Hooray!' Maria said. 'Now we know how long the log needs to be.'"

5. What is this passage mostly about?

A. the importance of girl power and teamwork

B. two girls solving a problem together

C. the benefits of urgency when working toward goals

D. the difference between two girls' plans to get across a river

6. Read this sentence: "Now Alex and Maria had to figure out how to make sure the log was **secure** on both sides of the bank before they walked across it to reach the other side of the river."

What is the meaning of the word **secure** in this sentence?

A. secure (*adjective*): self-confident

B. secure (*adjective*): fastened, stable

C. secure (*verb*): to make safe or lock up

D. secure (*verb*): to obtain or get ahold of

7. The question below is an incomplete sentence. Choose the answer that best completes the sentence.

The friends placed rocks on either side of the log to hold down the lighter branches; _____, the log was stable enough to walk on.

A. before

B. as a result

C. especially

D. meanwhile

8. It was important to measure the distance across the river before putting the log in the water.

Use evidence from the story to prove or disprove this statement.

9. What are two ways Alex helps to solve the problem facing her and Maria?

10. If Alex and Maria had not worked together to solve their problem, what might have happened? Use evidence from the text to support your answer.

Name _____

Graph and Analyze Relationships

The scale on a map is 1 in. = 4 mi. Two cities are 5 inches apart on the map. What is the actual distance between the two cities?

Step 1 Make a table that relates the map distances to the actual distances.

Map Distance (in.)	1	2	3	4	5
Actual Distance (mi)	4	8	12	16	?

Step 2 Write the number pairs in the table as ordered pairs.

(1, 4), (2, 8), (3, 12), (4, 16), (5, ?)

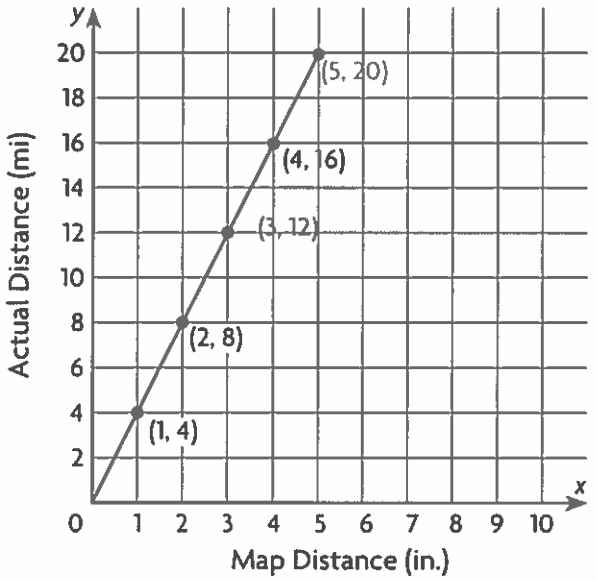
Step 3 Graph the ordered pairs. Connect the points with a line from the origin.

Possible rule: Multiply the map distance by 4 to get the actual distance.

Step 4 Use the rule to find the actual distance between the two cities.

So, two cities that are 5 inches apart on the map are actually 5 × 4, or 20 miles apart.

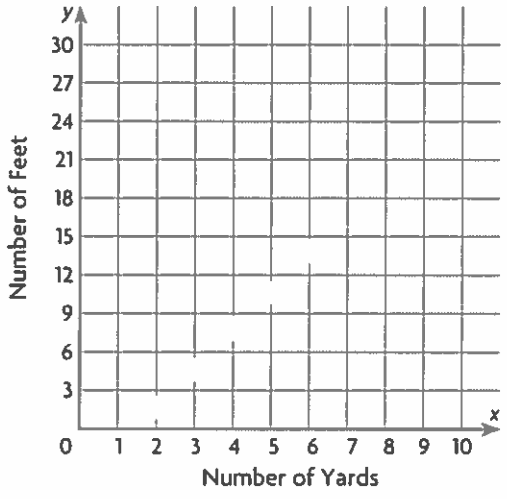
Plot the point (5, 20) on the graph.



Graph and label the related number pairs as ordered pairs. Then complete and use the rule to find the unknown term.

1. Multiply the number of yards by _____ to find the number of feet.

Number of Yards	1	2	3	4	5
Number of Feet	3	6	9	12	



Name _____

A. Read the draft model. Use the questions that follow the draft to help you think about how you can add details to support the topic.

Draft Model

Our region is experiencing a drought. It hasn't rained in a long time. Things aren't growing. Everything is brown.

1. What kinds of details can you add to develop the topic?
2. What facts or concrete details could be added to explain the first sentence?
3. What other details would show how the landscape looks?

B. Now revise the draft by adding details to support the topic and develop ideas about the drought.

Name _____

Jane wrote the paragraphs below using text evidence from two different sources to answer the question: *How do global warming and volcanic eruptions affect a region and its living things? Use facts and details from* Global Warming *and "When Volcanoes Erupt" in your writing.*

Global warming and volcanic eruptions change the climate of a region and affect the lives of animals and plants. According to *Global Warming*, large sheets of Arctic ice have recently begun to break apart due to an increase in average temperatures. Eventually, warmer temperatures will cause the ice to melt completely. Polar bears rely on this ice to get to the seals that they eat. If the ice disappears, then the polar bears will not get the food they need to survive, potentially leading to a decline in the polar bear population.

The debris and harmful gases from volcanic eruptions can destroy plants and harm animals in a region. The climate can change, too. "When Volcanoes Erupt" states that gases absorb heat, making temperatures rise. However, a volcanic cloud can obstruct the sun, resulting in cooler temperatures. Although volcanic eruptions can be destructive, this force of nature can also have positive effects. Eruptions have created mountains, plateaus, and plains, while volcanic ash has created rich soil which promotes the growth of living things.

Global warming and volcanic eruptions have a major effect on environments and living things. That is why it is so important to study these occurrences.

Reread the passage. Follow the directions below.

1. **Circle** the phrase that Jane uses in the second paragraph that demonstrates cause and effect.

2. **Draw a box** around two signal words in the second paragraph that demonstrate a compare-and-contrast text structure.

3. **Underline** the sentence with text evidence that shows the positive effects of volcanic eruptions.

4. **Write** the descriptive adjective found in the closing sentence.

_____

Name _____

- An **adjective** modifies a noun or a pronoun. Adjectives can tell what kind, how many, or how much. **Proper adjectives** should be capitalized.
- **Demonstrative adjectives** tell which one: *this, that, these, those.*
- The words *the, a,* and *an* are special adjectives called **articles**. Use *a* and *an* to refer to any one item in a group. Use *the* to refer to a specific item or more than one item.

Read each sentence. Underline each adjective. Circle any demonstrative adjectives or articles that you find.

1. Three horses approached the fence.
2. The Arabian horse had a long tail.
3. We held fresh grass up to his wet nose.
4. The white horse gave us a playful wink.
5. Two ranchers filled this large trough with cold water.
6. Those thirsty horses gathered to drink.
7. A warm breeze blew across the rolling prairie.
8. White clouds drifted along in the blue sky.
9. The third day of our vacation was nearing its end.
10. We headed back to the main house for an early dinner.

Name _____

- When more than one adjective is used to modify a noun, the adjectives must be listed in order. **Numbers** come first, followed by **opinion, size, age,** and **color.**
- **Commas** often separate two or more adjectives that describe the same noun. A comma does not normally follow a number in a description, however.

Read each sentence. Then include the adjectives in parentheses and rewrite the sentence on the line provided.

1. A truck drove down the road. (red, big)

_____

2. The driver wore a hat. (blue, silly, old)

_____

3. He honked his horn. (new, annoying)

_____

4. Dogs started barking inside the truck. (wet, three, frightened)

_____

5. The puppy had the loudest bark of all. (white, tiny, angry)

_____

Name _____

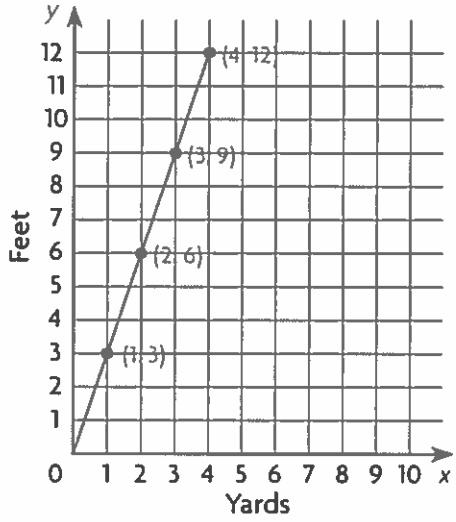
Graph and Analyze Relationships

COMMON CORE STANDARD—5.OA.3, 5.G.2 *Analyze patterns and relationships.*

Graph and label the related number pairs as ordered pairs. Then complete and use the rule to find the unknown term.

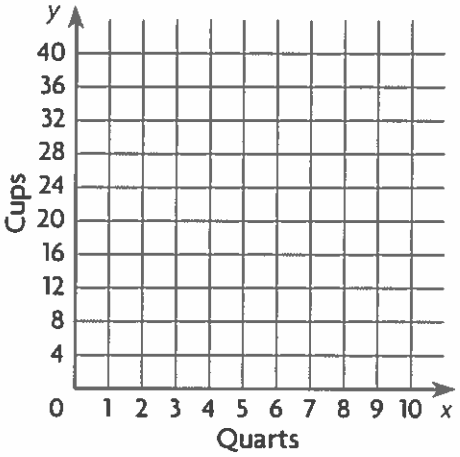
1. Multiply the number of yards by 3 to find the number of feet.

Yards	1	2	3	4
Feet	3	6	9	12



2. Multiply the number of quarts by _____ to find the number of cups that measure the same amount.

Quarts	1	2	3	4	5
Cups	4	8	12	16	



Problem Solving Real World

3. How can you use the graph for Exercise 2 to find how many cups are in 9 quarts?

_____

_____

_____

_____

_____

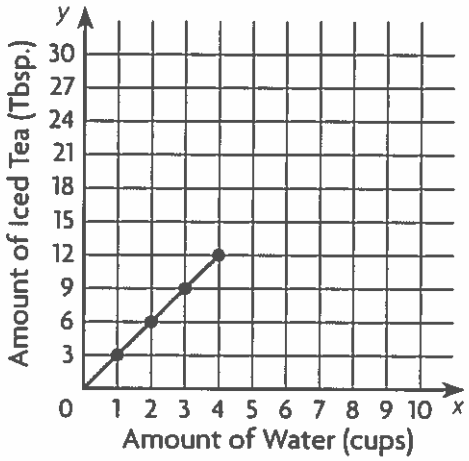
_____

4. How many cups are equal to 9 quarts? _____

Lesson Check (5.OA.3)

Use the data to complete the graph. Then answer the questions.

Paola is making a pitcher of iced tea. For each cup of water, she uses 3 tablespoons of powdered iced tea mix.



1. Fill in the missing number to complete the following rule.

   Multiply the amount of iced tea mix by _____ to get the amount of water.

2. Suppose Paola uses 18 tablespoons of iced tea mix. How many cups of water does she need to use?

Spiral Review (5.NBT.2, 5.NBT.6, 5.NBT.7)

3. A biologist counted 10,000 migrating monarch butterflies. How do you express 10,000 as a power of 10?

4. Find the quotient. Write your answer using a decimal and round to the nearest hundredth.

   8,426 ÷ 82

5. What is 54.38 + 29.7?

6. On a certain day, $1 is worth 30.23 Russian rubles. Omar has $75. How many rubles will he get in exchange?

Name _____

- **Acronyms** are abbreviations that contain all capital letters and no periods, such as *TV, NASA*, and *the UN*.
- Underline **titles** from long works, such as books and magazines. Put quotation marks around the titles of shorter works, such as articles and chapters. Capitalize all major words in titles.

Read each sentence. Correct any errors in capitalization or punctuation and rewrite the sentence on the line provided.

1. We read about a program called Most, or "Make Our School Terrific."

_____

_____

2. It was featured in last month's issue of education ideas.

_____

3. The article, Ten tips from top schools, offered many great suggestions.

_____

_____

4. For example, students could decorate a room like a nasa control center.

_____

_____

5. The author explained how in his first book, the intergalactic classroom.

_____

_____

Name _____

- When more than one adjective is used to modify a noun, the adjectives must be listed in order. **Numbers** come first, followed by **opinion, size, age,** and **color**. Commas are often used to separate two or more adjectives related to the same noun.
- **Acronyms** are abbreviations that contain all capital letters and no periods.
- Underline titles from long works. Put quotation marks around the titles of shorter works. Capitalize the important words in titles.

Proofread the paragraph. On the lines below, correct mistakes in adjective usage, capitalization, and punctuation.

In short five days, our ecology club will talk about the Epa, or Environmental Protection Agency. I borrowed new three books about the subject, including The history of the E.P.A., from the library. These first chapter, entitled A day for The Earth, offers an lengthy fascinating timeline of events leading up to Earth Day. I will copy it onto a poster using the red big marker.

_____

_____

_____

_____

_____

_____

_____

_____

Name _____

A. Read each sentence. Underline each adjective. Circle the demonstrative adjectives and articles.

1. We waited in a long line for the first showing of that new movie.

2. Several actors and actresses stopped by to say hello.

3. Someone said that the tall woman in the white coat was the director.

4. She spoke for five minutes in front of the excited audience.

5. My three friends agreed that this suspenseful movie was an amazing experience.

B. Read each sentence. Correct any errors in capitalization or punctuation and rewrite the sentence on the line provided.

6. The film was based on this best-selling book, "Chasing the storm."

_____

7. Some images came from N.o.a.a., the agency that monitors weather.

_____

8. I read a thorough review of the film in the magazine Ticket stubs.

_____

9. The article <u>One to watch</u> gave the movie high ratings.

_____

10. The school newspaper, Pupil Press, published my review, "A favorable Forecast.

_____

_____

Name: Weekly Math Review - Q1:1 Date:

Monday	Tuesday	Wednesday	Thursday
Find the product. 23 x 536=	Find the product. 54 x 653=	Find the product. 76 x 327=	Find the product. 94 x 845=
Find the quotient. $8\overline{)240}$	Find the quotient. $3\overline{)927}$	Find the quotient. $12\overline{)3624}$	Find the quotient. $7\overline{)2114}$
Find the sum. 2.56 + 4.83	Find the sum. 93.5 + 8.7	Find the sum. 714.29 + 98.65	Find the sum. 59.34 + 1.85 =
Find the difference. 58.84 − 2.78	Find the difference. 528.77 − 41.68	Find the difference. 1.76 − .98	Find the difference. 34.59 – 6.84 =
Simplify each fraction. $\frac{5}{10}$ $\frac{4}{12}$ $\frac{3}{9}$	Simplify each fraction. $\frac{6}{9}$ $\frac{2}{16}$ $\frac{10}{40}$	Simplify each fraction. $\frac{2}{4}$ $\frac{6}{18}$ $\frac{4}{20}$	Simplify each fraction. $\frac{9}{27}$ $\frac{7}{27}$ $\frac{8}{36}$
List the first 5 multiples of 1: 4: 5:	List the first 5 multiples of 12: 10: 3:	List the first 5 multiples of 6: 9: 7:	List the first 5 multiples of 11: 8: 2:
Find the products. 9 x 8= 7 x 9= 6 x 8= 7 x 8= 6 x 9= 7 x 6= 7 x 7=	List the factors of 24: 36: 27: 7:	List the factors of 12: 2: 45: 50:	List the factors of 48: 18: 5: 16:
Solve the expression. Use Order of Operations. 6x7–8÷4	Solve the expression. Use Order of Operations 3x(20-5)	Solve the expression. Use Order of Operations (24+2)÷2	Solve the expression. Use Order of Operations [2+(9x3)]x3
Add parenthesis to the expression below. 25 – 6 x 2	Add parenthesis to the expression below. 4 + 3 x 2 – 4 ÷ 2	Write two expressions where the solution is 19.	Write two expressions where the solution is 41.

Solar Absorbers and the Future of Electricity

by James Folta

Electricity is what we use to power things at home or at school. You can probably look around right now and see an electrical outlet or two. Everything that we plug into one of these outlets uses electricity. But where does this electricity come from? Right now we have a few ways to make electricity. Some are better than others. There are some scientists who are trying to find new ways to get electricity that are better for the planet Earth.

Most electricity is generated by machines that are run by steam. Making a lot of steam is the hard part. Water has to be heated up so that it boils and becomes steam. In the United States, a lot of different things are burned to create this steam. The most common things that are burned are oil, gas, and coal. The United States uses a lot of electricity, and so we burn a lot of oil, gas, and coal. In 2012, the United States of America used more oil and gas than any

other country in the world and was number two in the world for using coal.

The problem with using these things is that burning them can be harmful and damaging to the earth. Also, there is only a certain amount of coal, gas, and oil in the world, and they are running out very quickly. We can't make more of them. What happens when they run out? How else can we get electricity?

There are some people who are trying to answer this question. There are many scientists who are developing different methods of getting electricity. One of these people is Jeff Chou, who is a scientist and researcher working on new ways of getting electricity. Jeff works at MIT, which stands for Massachusetts Institute of Technology. It is a university in Cambridge, Massachusetts. MIT is very well known, and people from all over the world go to study there. It is one of the best colleges to learn and practice science.

Jeff is at MIT working as a researcher on electricity. He decided he wanted to be a scientist in high school: "I happened to like the math and physics classes, so in college I chose to focus on electrical engineering." Electrical engineering is studying how electricity works. This is helpful for knowing how things like computers work. In fact, Jeff can build the computer chips that make computers run!

Jeff likes being a scientist because he can change the world. "I get to work on tough problems that could help out everyone on Earth," Jeff says. Jeff likes that he gets to try to "come up with new solutions by thinking creatively. In fact, in science, wild and crazy ideas are encouraged!"

Jeff has been working on how to get better solar power. Solar power, Jeff says, is "converting the light we get from the sun into usable electrical energy." You can feel this energy yourself: the sun feels hot on your skin because it is sending out energy. Solar power is different from oil, gas, or coal because it is what is called renewable energy. This means that its source is not consumed when we use the energy, as happens with gas, for instance, which burns away. Things like the wind, the sun, and ocean currents are called renewable because they won't go away anytime soon.

At MIT, Jeff has been "working on new ways to convert solar energy into electricity." He made something called an absorber. It takes the heat from something hot, like the sun, and turns it into electricity. Absorbers are very small. They are special panels made out of silicon and other materials. These panels can "absorb and convert each photon [from the sun] that comes in, into an electron." These electrons can be used to make electricity. This can power anything, like a toaster, or a TV, or even some cars.

Jeff's job as a researcher involves doing lots of experiments. Jeff says that experiments are

the heart of science. You have to take your ideas and test them to see if they work or not. "Sometimes the ideas work and sometimes they don't, and that's science in a nutshell," Jeff says. These experiments involve lots of special equipment and laboratories. Jeff does most experiments in a clean room, which is a room that has no germs or dirt or anything that might damage his experiments. In the clean room, Jeff made the tiny solar absorbers. Then he shined light on them to see how much energy they could make. He took careful notes and measurements so that he could tell everyone how good or bad the device was.

Jeff likes working with solar energy because it is better for the earth. "Solar energy is very important because we can create electrical energy without polluting the earth," Jeff says. Older ways of getting electricity that use oil, gas, or coal are more harmful. They "burn toxic chemicals and release them into the sky and Earth, which are harmful to you and me," Jeff says. But the absorbers that Jeff built are cleaner. "All we have to do is point our solar silicon panels towards the sun, and we get clean energy," Jeff says.

For Jeff, his solar absorbers are very exciting because they can help us turn anything hot into electricity. Jeff is hoping that if his panels are sensitive enough, anything hot could generate electricity, not just the sun. He says, "There are a lot of hot things we encounter every day; imagine if we can now use those to help power an entire city!" This is the exciting part of science for Jeff. He is helping to make the world a cleaner and better place through his solar panels. If scientists like Jeff are successful, the world would be able to get all its electricity from clean, renewable sources. This would make our world a cleaner and safer place to live.

Name: _____ **Date:** _____

1. What kinds of energy does Jeff Chou work with?

A. energy from coal, gas, and oil

B. solar energy and energy from coal

C. electrical energy and energy from oil

D. solar energy and electrical energy

2. What does the passage describe?

A. The passage describes electricity and the efforts of a scientist to turn solar energy into electricity.

B. The passage describes the reasons that people from all over the world go to study at MIT.

C. The passage describes what Jeff Chou does to keep the room where he does his experiments clean.

D. The passage describes the few harmful byproducts that are created by people use energy from the sun.

3. Getting electricity from oil, gas, and coal pollutes the Earth.

What evidence from the passage supports this statement?

A. Jeff Chou hopes that his panels will be sensitive enough to absorb electricity from anything hot, not just the sun.

B. In order to generate steam for its electricity needs, the United States has to burn a lot of oil, gas, and coal.

C. Using oil, gas, and coal burns toxic chemicals and releases them into the sky and the earth, which is harmful to people.

D. According to Jeff Chou, testing your ideas to see whether or not they work is at the heart of science.

4. Why might Jeff and other scientists be working on making electricity from **renewable** sources, like solar energy?

A. because it is much more expensive to make electricity from non-renewable sources than to make it from renewable ones

B. because the sources used most are running out very quickly, and renewable sources will not run out any time soon

C. because renewable sources can burn more easily, which means we can produce more steam to power more machines

D. because using energy from renewable sources is a "wild and crazy idea", and scientists prefer to work on very creative projects

5. What is this passage mostly about?

A. the reasons that the United States of America used more oil and gas than any other country in 2012

B. the computer chips that Jeff Chou learned how to build as an electrical engineer

C. electrical engineering, the process of burning coal, and the importance of electrical outlets in daily life

D. electricity, solar energy, and a scientist working on ways to turn solar energy into electricity

6. Read the following sentence: "At MIT, Jeff has been 'working on new ways to **convert** solar energy into electricity.'"

What does the word **convert** mean?

A. increase

B. decrease

C. change

D. destroy

7. Choose the answer that best completes the sentence below.

Solar power is renewable; _____, power from oil, gas, and coal is not renewable.

A. however

B. especially

C. in conclusion

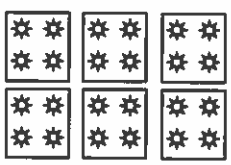
D. initially

8. What did Jeff make to convert solar energy into electricity?

9. According to Jeff, why is solar energy "very important"?

10. Are the solar absorbers that Jeff worked on a better way of getting electricity than oil, gas, and coal? Use evidence from the passage to explain why or why not.

Name: Weekly Math Review - Q1:2 Date:

Monday	Tuesday	Wednesday	Thursday
Find the product. 18 x 342=	Find the product. 88 x 664=	Find the product. 43 x 823=	Find the product. 98 x 920=
Find the quotient. $13\overline{)325}$	Find the quotient. $14\overline{)1162}$	Find the quotient. $9\overline{)549}$	Find the quotient. $15\overline{)1005}$
Find the sum. 4.22 + 8.13	Find the sum. 92.9 + 9.2	Find the sum. 199.13 + 75.2=	Find the sum. 55.14 + 7.82=
Find the difference. 98.19 – 14.03	Find the difference. 64.09 – 8.8=	Find the difference. 29.9 – 18.82=	Find the difference. 75.11 – 4.4=
Simplify each fraction. $\frac{8}{10}$ $\frac{2}{8}$	Simplify each fraction. $\frac{7}{21}$ $\frac{3}{12}$	Simplify each fraction. $\frac{6}{10}$ $\frac{9}{21}$	Simplify each fraction. $\frac{5}{20}$ $\frac{3}{24}$
Find the product. 7 x 7= 7 x 9= 7 x 3= 7 x 6= 7 x 12= 7 x 11=	Find the product. 9 x 7= 9 x 9= 9 x 3= 9 x 6= 9 x 12= 9 x 11=	Find the product. 8 x 7= 8 x 9= 8 x 3= 8 x 6= 8 x 12= 8 x 11=	Find the product. 12 x 7= 12 x 9= 12 x 3= 12 x 6= 12 x 12= 12 x 11=
List 5 multiples of. 2: 4: 6:	List 5 multiples of. 3: 5: 7:	List 5 multiples of. 8: 9: 10:	List 5 multiples of. 15: 22: 30:
List the factors of. 36: 7:	List the factors of. 9: 33:	List the factors of. 41: 50:	List the factors of. 12: 30:
Solve. $8^2 + 3(36 \div 6) - 2$	Add parenthesis to the expression below to = 7. 7 – 3 x 2 + 6	Solve. $300 - 7[4(3 + 5)] + 3^3$	Write two expressions where the solution is 28.
What multiplication and division problem does this model represent? 	What multiplication and division problem does this model represent? 	Draw a model to represent the following problem. 12 x 6	Draw a model to represent the following problem. 42 ÷ 7

Slavery, the Civil War & Reconstruction: Gettysburg and the Gettysburg Address

by ReadWorks

Abraham Lincoln at Gettysburg, Pennsylvania

In the summer of 1863, Southern and Northern troops clashed in one of the bloodiest battles of the Civil War. After the Confederate, or Southern, Army won a battle in northern Virginia, it invaded the North and headed into Pennsylvania. It hoped to collect more supplies and weaken the North. Meanwhile, the Union Army of the North was pursuing the Confederate troops. The two sides met and fought near the town of Gettysburg, Pennsylvania. The battle at Gettysburg has been called "the most crucial battle in American history."

Before the Battle of Gettysburg, the Confederacy had been doing very well in the Civil War. But at Gettysburg, the North defeated the South. The battle was bloody. The Union Army suffered 23,000 casualties, while the Confederate Army suffered 28,000. A casualty is someone who is killed, wounded, or captured in battle. The Battle of Gettysburg turned the tide of the war and marked the beginning of the success of the North in defeating the South.

In the fall of 1863, President Lincoln visited the battlefield at Gettysburg for a ceremony

dedicating the field to all the soldiers who had died. He reminded people why Americans must stand up for their values. His speech, the Gettysburg Address, has become one of the most famous speeches of American history. Lincoln said:

> "Four score and seven years ago our fathers brought forth on this continent a new nation, conceived in Liberty, and dedicated to the [idea] that all men are created equal.
>
> Now we are engaged in a great civil war, testing whether that nation or any nation so conceived and so dedicated, can long endure. We are met on a great battlefield of that war. We have come to dedicate a portion of that field, as a final resting place for those who here gave their lives that that nation might live. It is altogether fitting and proper that we should do this.
>
> But, in a larger sense, we can not dedicate-we can not consecrate-we can not hallow-this ground. The brave men, living and dead, who struggled here, have consecrated it, far above our poor power to add or detract. The world will little note, nor long remember what we say here, but it can never forget what they did here. It is for us the living, rather, to be dedicated here to the unfinished work which they who fought here have thus far so nobly advanced. It is rather for us to be here dedicated to the great task remaining before us-that from these honored dead we take increased devotion to that cause for which they gave the last full measure of devotion-that we here highly resolve that these dead shall not have died in vain-that this nation, under God, shall have a new birth of freedom-and that government of the people, by the people, and for the people, shall not perish from the earth."

Lincoln's words were never forgotten. The government of the people, by the people, and for the people remains.

Name: _____ **Date:** _____

1. Why has the Battle of Gettysburg been called "the most crucial battle in American history"?

A. It was a turning point in the Civil War.

B. It was the first time the North was invaded.

C. It was the bloodiest battle in American history.

D. It was won by the Confederate Army.

2. The passage sequences the events that led up to the Gettysburg Address. Which of the following events happened first?

A. The Union and Confederate Armies met near Gettysburg, Pennsylvania.

B. The Confederate Army invaded the North and headed into Pennsylvania.

C. President Lincoln delivered the Gettysburg Address.

D. The Confederate Army won a battle in northern Virginia.

3. The Gettysburg Address shows Lincoln's determination to have a unified country once more. What sentence from the speech best supports this conclusion?

A. "It is for us the living, rather, to be dedicated here to the unfinished work which they who fought here have thus far so nobly advanced."

B. "It is rather for us to be here dedicated to the great task remaining before us...and that government of the people, by the people, and for the people, shall not perish from the earth."

C. "Now we are engaged in a great civil war, testing whether that nation or any nation so conceived and so dedicated, can long endure."

D. "We have come to dedicate a portion of that field, as a final resting place for those who here gave their lives that that nation might live."

4. Based on Lincoln's speech, how can the men who fought in the Battle of Gettysburg best be honored?

A. by giving a powerful speech that reminds people of their values

B. by creating a whole new government that includes the North and the South

C. by consecrating the battlefield on which the soldiers fought

D. by working to unite the American nation once more

5. What is the passage, "Gettysburg and the Gettysburg Address" mostly about?

A. the casualties suffered by the Union and Confederate Armies

B. an important Civil War battle and Lincoln's address

C. how the Battle of Gettysburg impacted the tide of the Civil War

D. how Lincoln was involved in the Battle of Gettysburg

6. What is the purpose of the paragraphs provided before the text of the Gettysburg Address?

A. to explain how the South defeated the North

B. to examine the dedication of the battlefield

C. to criticize Lincoln's speech

D. to provide historical context for the Address

7. Choose the answer that best completes the sentence below.

In the summer of 1863, the Confederate Army of the South invaded the North _____ it hoped to collect more supplies and weaken the North.

A. sometimes

B. however

C. because

D. although

8. How did the Battle of Gettysburg impact the outcome of the Civil War?

9. What is the "great task" described in the Gettysburg Address?

10. What does Lincoln's description of the "great task" show about his attitude toward the war? Use information from the passage to support your answer.

Name: Weekly Math Review - Q1:3 Date:

Monday	Tuesday	Wednesday	Thursday
Find the product. 54 x 523=	Find the product. 76 x 468=	Find the product. 12 x 937=	Find the product. 76 x 759=
Find the quotient. 12) 672	Find the quotient. 15) 375	Find the quotient. 8) 288	Find the quotient. 7) 3,801
Find the sum. 24.75 + 12.45	Find the sum. 23.8 + 3.5	Find the sum. 65.53 + 4.85=	Find the sum. 467.4 + 9.7=
Find the difference. 12.67 - 10.54	Find the difference. 36.47 – 34.89=	Find the difference. 126.78 – 65.98=	Find the difference. 23.91 – 17.99=
<, >, or = 12.56____125.6 74.3____7.43	<, >, or = 10.01____10.10 55.56____55.65	<, >, or = 678.05____67.805 30.30____30.03	<, >, or = 56.53____565.3 44.65____44.650
Simplify each fraction. $\frac{4}{8}$ $\frac{5}{20}$	Simplify each fraction. $\frac{8}{24}$ $\frac{3}{15}$	Simplify each fraction. $\frac{9}{27}$ $\frac{2}{22}$	Simplify each fraction. $\frac{6}{30}$ $\frac{7}{28}$
Solve the expression. Use PEMDAS (32÷4)+3=	**Solve the expression. Use PEMDAS** (4+5)÷3x4=	**Solve the expression. Use PEMDAS** [3x(6+6)]-2=	**Solve the expression. Use PEMDAS** 72÷9+4x4=
What division problem does this model represent? 	What multiplication and division problem does this model represent? 	Draw a model to represent the following problem. 5 x 3	Draw a model to represent the following problem. 12 ÷ 6
What is 43.78 in word form?	What is 78.6 in word form?	What is 32.043 in expanded form?	What is 8.478 in expanded form?
Find the Product. 8 x 8= 9 x 9= 7 x 8= 6 x 7= 4 x 8= 7 x 6= 7 x 7= 9 x 7=	Label the place value. 12,354.897 2: thousands 4: 5: 8: 9: 7:	Label the place value. 7,854.209 2: tenths 0: 9: 4: 5: 7:	Label the place value. 987,164.302 0: hundredths 1: 4: 3: 6: 9: