SCHOLASTIC

SUMMER EXPRESS™

BETWEEN GRADES 6&7

VOCABULARY • GRAMMAR • WRITING • READING • MATH

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BETWEEN GRADES 6&7

NEW YORK • TORONTO • LONDON • AUCKLAND • SYDNEY
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Authors: Frankie Long, M.Ed. & Leland Graham, Ph.D.
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Table of Contents

Dear Parent:

Congratulations! You hold in your hands an exceptional educational tool that will give your middle schooler a head start into the coming school year.

Inside this book, you will find one hundred practice pages that will help your middle schooler review and learn math, reading, writing, grammar, vocabulary, and so much more! *Summer Express* is divided into ten weeks, with two practice pages for each day of the week, Monday to Friday. However, feel free to use the pages in any order that your middle schooler likes. Here are a few features you will find inside:

- Suggestions for fun, creative **learning activities** you can do with your child each week.
- A weekly **journal entry sheet** so that your middle schooler can record his or her goals for the week as well as respond to the journal entries.
- A **recommended reading list** of age-appropriate books that your middle schooler can read throughout the summer.
- A **certificate of completion** to celebrate your middle schooler's accomplishments.

We hope you and your middle schooler will have fun as you work together to complete *Summer Express*!

Enjoy!
The Editors

Terrific Tips for Using This Book

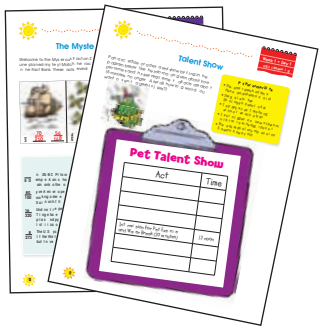
1 Pick a good time for your middle schooler to work on the activities. You may want your child to do them around mid-morning or early afternoon when he or she is not too tired.

2 Make sure your middle schooler has all the supplies he or she needs, such as a ruler, pencils, erasers, and markers. Set aside a special place for your child to work.

3 At the beginning of each week, discuss how many minutes a day your child would like to read. We recommend that a student entering the seventh grade read 45 minutes to one hour a day. Half of this time should be spent on required summer reading and projects.

4 Reward your middle schooler's efforts with free time for video games, texting, or his or her favorite pastime. Set a goal for the week and a reasonable reward for achieving the goal.

5 Encourage your middle schooler to complete each worksheet, but do not force the issue. While you may want to ensure that your child succeeds, it is also important to maintain a positive and relaxed attitude toward school and learning.



6 After you have given your middle schooler a few minutes to look over the practice pages, ask what his or her plan is for completing the pages. Hearing the explanation aloud can provide insight into his or her thinking processes. At this point, you can decide if your child can complete the work independently or needs guidance. If he or she needs support, try to allow your middle schooler choices about which family member he or she will be working with. Providing choices can help boost confidence and encourage your child to take more ownership in the work to be done.

7 When your child has finished the workbook, why not present the certificate of completion on page 143 at a family gathering or dinner at his or her favorite restaurant?

Skill-Building Activities for Any Time

The following activities are designed to complement the ten weeks of practice pages in this book. These activities do not take more than a few minutes to complete and can enrich and enliven your child's learning. Use these activities to turn otherwise idle time into productive time—for example, standing in line or waiting at the bus stop. It's a great way to practice key skills and have fun together at the same time.

Finding Real-Life Connections

One of the reasons for schooling is to help children function in the real world, to empower them with the abilities they will truly need. Why not put those developing skills into action by enlisting your child's help with reading a map, following a recipe, checking grocery receipts, calculating a restaurant tip, and so on? He or she can apply reading, writing, science, and math skills in important and practical ways, thereby connecting what he or she is learning with everyday tasks.

An Eye for Patterns

A red-brick sidewalk, a beaded necklace, a Sunday newspaper—all show evidence of structure and organization. Help your child recognize a variety of structures or types of organization by observing and talking about patterns they see. Your middle schooler will apply his or her developing ability to spot patterns across all school subject areas. The ability to identify patterns is a skill shared by effective readers, writers, scientists, and mathematicians.

Journals as Learning Tools

Journal writing reinforces reading comprehension, but it also helps your middle schooler develop skills in many academic areas as well. A journal can simply be a spiral notebook, a composition notebook, or sheets of paper stapled together. Your middle schooler will be writing and/or drawing in the journal to complement the practice pages completed each week. The journal provides another tool for monitoring the progress of newly learned skills and practicing those that need improvement. Before moving on to another set of practice pages, take a few minutes to read and discuss that week's journal entries with your child.

Promote Reading at Home

- Practice what you preach! You and your middle schooler should both read for pleasure, whether you like reading science-fiction novels or do-it-yourself magazines. Reading should not always be work. **Sometimes we should read just for fun!** Keeping reading materials around the house encourages you to read in front of your child and demonstrates that reading is an activity you enjoy.
- Set aside a family reading time. By designating a reading time each week, your family is assured an opportunity to discuss what everyone is reading. For example, you might share a funny quote from an article, or your middle schooler can tell you his or her favorite part of a story. The key is to **make a family tradition of reading—and sharing what you've read**.
- **Make a family collection of reading materials** easily accessible by everyone. Designate a specific place for library books and post the return date. This idea will help prevent library fines. Keep reading materials fresh and interesting by buying used books, swapping books and magazines with friends and neighbors, as well as checking out books from the library.

Skills Review and Practice

Educators have established learning standards for math and language arts. Listed below are some of the important skills covered in *Summer Express* that will help your middle schooler review and prepare for the coming school year so that he or she is ready to meet these learning standards.

Math

6th Grade Skills to Review

- using the four arithmetic operations
- converting/computing different forms of numbers
- determining circumference of circles and area and perimeter of plane figures
- working flexibly with fractions, decimals, and percents
- developing and using fluently strategies for computing with fractions, decimals, and integers
- creating, selecting, and using appropriate graphical representation of data understanding
- applying basic concepts of probability and statistics
- using logical reasoning
- converting measurements

Skills to Practice for 7th Grade

- using the concept of ratio, proportion, percent
- understanding the meaning of operations on rational numbers, including square roots of perfect squares and whole number powers
- applying formulas to find measurements of plane and solid figures
- understanding the location of points on a coordinate grid in any of the four quadrants
- evaluating expressions and formulas and considering order of operations
- devising a plan to solve a problem
- applying a variety of strategies to solve two-step equations with one variable
- using estimation to determine the reasonableness of answers
- applying concepts and procedures from probability and statistics

Language Arts

6th Grade Skills to Review

- improving capitalization and punctuation
- working with spelling, vocabulary, and usage
- determining correct sentence structure (fragments, phrases, and clauses)
- practicing writing in various modes and genres
- identifying figurative language and precise language
- using reference sources, including electronic reference materials
- using alphabetical order, table of contents, index
- demonstrating knowledge of appropriate critical-thinking skills (main idea, fact or opinion, sequence, cause and effect; reading for details, information, and understanding)
- correcting subject-verb agreement
- diagramming direct objects and prepositional phrases

Skills to Practice for 7th Grade

- using different skills and strategies to read different genres
- demonstrating evidence of reading comprehension
- understanding and applying knowledge of text components to comprehend text
- reading new information or performing a task
- improving use of punctuation, capitalization, and spelling
- recognizing and differentiating among types of sentences
- using correctly clauses, phrases, gerunds, infinitives, and appositives
- understanding root words, synonyms, antonyms, and homophones
- identifying commonly used foreign words and phrases
- gathering information from a variety of sources

Helping Your Middle Schooler Get Ready: Week 1

These are the skills your middle schooler will be working on this week.

Math
- basic operations
- logical reasoning
- fractions and decimals
- geometry and problem solving
- mixed fractions

Reading
- reading for details

Writing
- expository writing

Vocabulary
- figurative language

Grammar
- subject-verb agreement
- sentence fragments

Here are some activities you and your middle schooler might enjoy.

Something New to Wear Help your middle schooler make shorts from that favorite pair of jeans or pants that are too short. Measure the inseam length for the shorts. Have your child measure the inside leg of the pants and mark one inch longer than the inseam measurement for the shorts. Make sure he or she marks all the way around the pant leg. Carefully cut the leg of the pants; follow the line with either a straight edge or pinking shears. Folding and hemming the cut edge will give a finished, more tailored look and prevent fraying. A rough edge will give a frayed, casual finish.

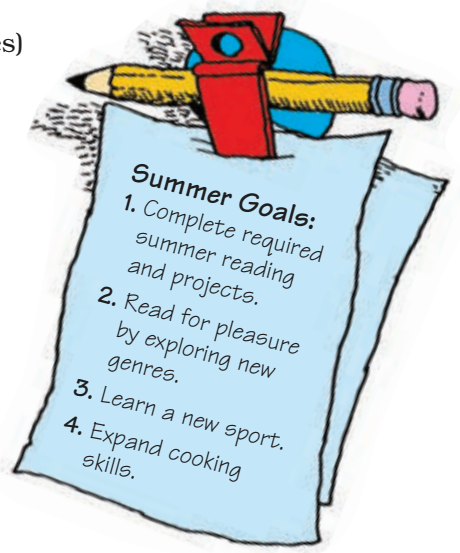
Good Deed Invite your child to look around the house to see what needs to be done. He or she might do a load of laundry, wash the dishes, mow the lawn, volunteer to walk the dog, and/or watch a little sister or brother while you go to the store. Encourage your middle schooler to develop the habit of being helpful, without being asked. You'll both be surprised at the positive results.

Your middle schooler might enjoy reading the following books:

Ellis Island
(Cornerstones of Freedom series)
by Judith Jango-Cohen

Sounder
by William H. Armstrong

The Surrender Tree: Poems of Cuba's Struggle for Freedom
by Margarita Engle



My Week at a Glance

Use this page to set goals and make journal entries.

Goals for Monday

Journal: Who is your favorite musical performer? What five questions would you ask him or her if you had the opportunity to interview this performer?

Goals for Tuesday

Goals for Wednesday

Journal: Describe what your life will be like in 20 years.

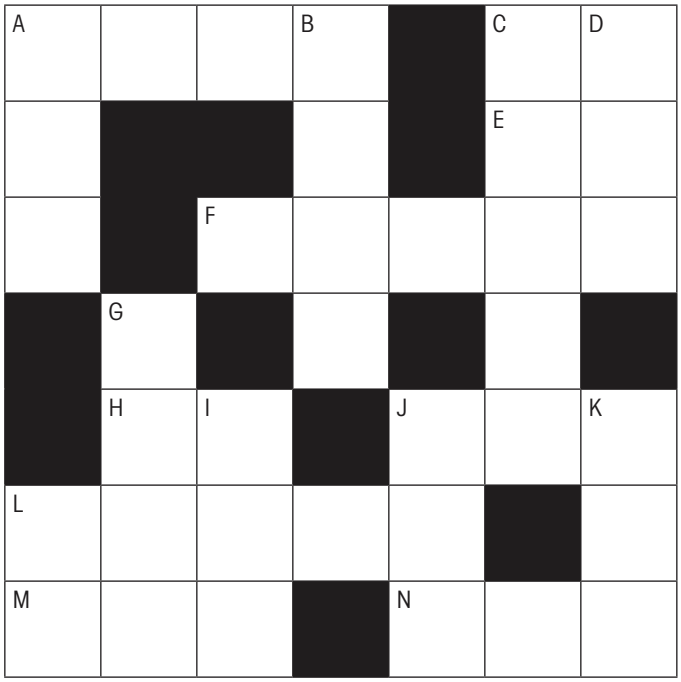
Goals for Thursday

Goals for Friday

Journal: You are a scientist who has just solved the mystery of why a meatball does not bounce. Explain your findings to the press.

Math Number Puzzle

Complete the math puzzle by solving the across and down problems below. Write your numeric answers in the appropriate boxes in the puzzle. Commas should not be part of your answer.



Across

A. **9,257 – 6,982 =**

C. **19 x 4 =**

E. **100 ÷ 2 =**

F. **4,507 x 4 =**

H. **25 + 26 =**

J. **448 + 487 =**

L. **5,860 + 8,548 =**

M. **808 + 36 =**

N. **25 x 29 =**

Down

A. **4 x 62 =**

B. **6,072 – 888 =**

C. **8,357 x 9 =**

D. **2,432 ÷ 4 =**

G. **424 x 6 =**

I. **12 x 12 =**

J. **187 + 800 =**

K. **1545 ÷ 3 =**

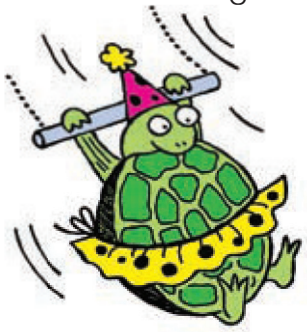
L. **9 x 2 =**

Talent Show

Plan a schedule for a pet talent show by filling in the program below. Use the information given about your performers and this key requirement—all acts last about 15 minutes, no longer. (After all, how long would you want to listen to a gerbil's jokes?).

Pet Performer Data

- The hamster does headstands. He's a ham and wants to go last.
- The gerbil tells jokes. She's jumpy and won't go first.
- The puppy fetches. That's boring. Get this act over with early on.
- The kitten juggles yarn. She won't perform just before or after the dog or parakeet.
- The parakeet does funny impersonations. She won't follow a comic.



Pet Talent Show

Act	Time
Intermission for Pet Exercise and Water Break (20 minutes)	12 noon

The Old-Fashioned Way

Old-time soda jerks had some strange names for the treats they served. Listed are ten of those names. To translate each old-time phrase into modern-day prose, change each fraction to a decimal, then find that decimal next to one of the modern phrases. Write the letter of the answer in the blank provided.

Converting Fractions to Decimals

To write a fraction as a decimal, divide the numerator by the denominator.

Example: $\frac{4}{5} \longrightarrow 5\overline{)4.0}$ .8

$\frac{4}{5} = .8$

	Old-Time Phrase			Modern Phrase
_____ 1.	**Suds in the Air**	$\frac{3}{5}$	A. **.6**	**Glass of Root Beer**
_____ 2.	**One on the City**	$\frac{3}{4}$	B. **.36**	**Two Orders of Strawberry Ice Cream**
_____ 3.	**Burn One All the Way**	$\frac{5}{8}$	C. **.625**	**Chocolate Malted With Chocolate Ice Cream**
_____ 4.	**M.D. on Wheels**	$\frac{17}{50}$	D. **2.5**	**Banana Split**
_____ 5.	**Pair of Patches**	$\frac{9}{25}$	E. **.15**	**Large Scoop of Chocolate Ice Cream**
_____ 6.	**Sinkers and Suds**	$\frac{3}{2}$	F. **1.5**	**Coffee and Donuts**
_____ 7.	**House Boat**	$\frac{5}{2}$	G. **.34**	**Dr. Pepper to Go**
_____ 8.	**Bucket of Mud**	$\frac{3}{20}$	H. **.13**	**Chocolate Malted With an Egg in It**
_____ 9.	**Twist It, Choke It**	$\frac{2}{15}$	I. **.75**	**Glass of Water**
_____ 10.	**Stretch One and Hold**	$\frac{2}{3}$	J. **.66**	**Large Coke Without Ice**

How the Government Works

In the United States our laws are made by lawmakers; no one person rules over the country or its citizens. There are three branches of government: legislative, executive, and judicial. Laws are made by the legislative branch. Enforcement of the laws is the duty of the executive branch. When a difference of opinion occurs, the judicial branch decides the outcome—who is right or who is wrong.

The executive branch at the local level is headed by the mayor, city managers, or county commissioners. At the state level, it is the governor who holds the top-elected position. The president is the chief executive of the entire country. The legislative branch is divided into two branches, the House of Representatives and the Senate. The judicial branch consists of judges and courts. Some judges are elected while others are appointed. While judges make the decisions in some courts, juries, consisting of groups of citizens, make the decisions in other cases.

Governments are mandated, or required, to do many things: collect taxes, make laws, build roads and bridges, and provide for the common defense of the citizens. Protection under the law includes not only law enforcement (police and the military), but also agencies dedicated to protecting us from polluted water and harmful and/or impure food and drugs. Governments also help unemployed and poor people, support public schools, maintain areas for parks and recreation as well as many other functions that promote the general welfare of the people.

Based on your reading of the passage above, answer the following questions.

1. **Which answer best describes how our court system works?**
   - A. A jury consists of six men and six women.
   - B. Judges decide all cases that are presented.
   - C. A jury must be selected for every case heard.
   - D. A judge or a jury decides cases.

2. **Match each branch of government with its primary responsibility.**

Legislative	Decides disputes
Judicial	Enforces laws
Executive	Makes laws

3. **Four mandated activities of government are**

   A. _____

   B. _____

   C. _____

   D. _____

4. **What is the title of the leader of the local executive branch where you live?**

   _____

What Have You Learned About Geometry?

Match each geometry term with its picture.

_____ 1. **cone**

_____ 2. **trapezoid**

_____ 3. **square pyramid**

_____ 4. **cylinder**

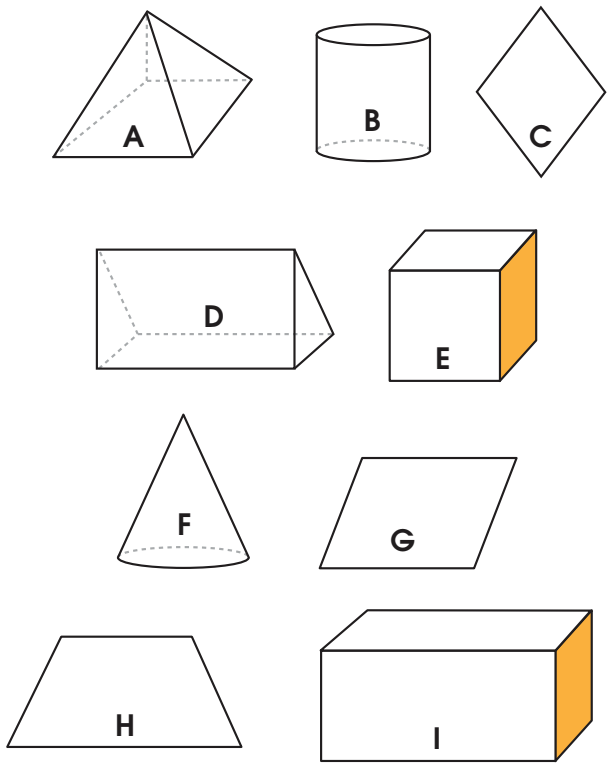
_____ 5. **triangular prism**

_____ 6. **rectangular prism**

_____ 7. **cube**

_____ 8. **parallelogram**

_____ 9. **rhombus**



Review the information about perimeter and area in the box. Then solve each problem.

10. **A tabletop is shaped like a right triangle with a base of 35 inches and a depth of 40 inches. What is the area of the tabletop?**

_____

11. **Cesar has a new desk that is 18 inches long and 12 inches wide. What is the area of Cesar's desk?**

_____

12. **If Al hits a home run on a baseball diamond, which has three bases and home plate that are each 90 feet apart, how many feet will he run rounding the bases?**

_____

Finding Perimeter and Area	
Perimeter of a rectangle	*2 x length + 2 x width*
Area of a rectangle	*length x width*
Area of a triangle	*½ (base x height)*

13. **How many feet of fencing will Mr. Stanley need to fence a school yard 90 feet long and 60 feet wide?**

_____

14. **What is the area of a brick patio that is 8 feet long and 12 feet wide?**

_____

Subject-Verb Agreement

Subjects and verbs must be in **agreement**. *When the subject is* **singular**, *the verb must be* **singular** *as well. A* **plural** *noun requires a* **plural** *verb. Generally, the verb does not require a change in form to agree with its subject. The exception is in the present tense third person; the singular verb ends in s.*

Examples: A cricket makes a musical sound. (singular)
Crickets make a musical sound. (plural)

In each sentence, draw a circle around the correct verb.

1. **Erosion (is, are) the wearing away of land.**
2. **Natural forces such as wind and water (cause, causes) most erosion.**
3. **Glaciers, rivers of ice, (act, acts) like plows pushing rocks and soil ahead of them.**
4. **Waves and running water (is, are) the chief elements causing erosion.**
5. **Rain water, a form of running water, (does, do) more damage than the combined damage done by waves, ice, and wind.**
6. **Solid rock (wears, wear) away more slowly than loose soil.**
7. **Sand, blown by the dry wind, sometimes (carves, carve) strange rock formations.**
8. **Erosion (occurs, occur) more slowly on plant-covered soil than on barren soil.**
9. **Hillside erosion (take, takes) place more quickly than erosion on level ground.**
10. **To fight erosion, farmers (plow, plows) hillside fields horizontally.**
11. **When a gully forms, it (is, are) the sign of erosion.**
12. **People who (know, knows) about the problem of erosion (work, works) to prevent further damage to valuable land.**

Computation Survey

Solve the 16 fractions and mixed number problems below. Always work carefully and pay attention to the signs. Reduce answers to the lowest terms. Show your work.

1. $\begin{array}{r} \frac{2}{5} \\ +\ \frac{1}{5} \\ \hline \end{array}$

2. $\begin{array}{r} \frac{4}{5} \\ -\ \frac{3}{5} \\ \hline \end{array}$

3. $2 \cdot \frac{1}{4} =$

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

5. $\begin{array}{r} \frac{1}{4} \\ +\ \frac{1}{8} \\ \hline \end{array}$

6. $\begin{array}{r} \frac{2}{5} \\ -\ \frac{1}{3} \\ \hline \end{array}$

7. $\frac{2}{3} \cdot \frac{2}{3} =$

8. $\frac{1}{2} \div \frac{4}{5} =$

9. $\begin{array}{r} 3\frac{7}{9} \\ +\ 4\frac{4}{9} \\ \hline \end{array}$

10. $\begin{array}{r} 4\frac{1}{3} \\ -\ 1\frac{2}{5} \\ \hline \end{array}$

11. $3\frac{3}{4} \cdot 2 =$

12. $6 \div 3\frac{2}{3} =$

13. $\begin{array}{r} 2\frac{3}{4} \\ +\ 3\frac{4}{5} \\ \hline \end{array}$

14. $\begin{array}{r} 4\frac{1}{4} \\ +\ 1\frac{5}{6} \\ \hline \end{array}$

15. $3\frac{1}{7} \cdot 1\frac{3}{4} =$

16. $1\frac{1}{5} \div 2\frac{1}{6} =$

Identifying Incomplete Sentences

A **sentence** *must have both a subject and predicate (verb) to express a complete thought.*
A group of words that lacks a subject, a predicate, or both is a **sentence fragment**.
A fragment does **not** *express a complete thought and must be avoided in writing.*
Note: Some sentences may have an implied subject (you).

Examples:

Dumped many chests of tea into the Boston Harbor. (lacks a subject)

The Minutemen from nearby towns. (lacks a predicate)

On July 4, 1776. (lacks a subject and a predicate)

Remember the days of the Minutemen as you read this passage. (complete sentence; "you" is understood.)

Draw one line under the subject and two lines under the predicate of each complete sentence. If a sentence is not complete, write **F** (fragment) in the blank. If the sentence expresses a complete thought, write **S** (sentence) in the blank.

_____ 1. **A very high mountain.**

_____ 2. **Mt. Everest is a high mountain in Nepal.**

_____ 3. **Sir Edmund Hillary was the first to climb Mt. Everest.**

_____ 4. **Hillary and his group of climbers almost died in the cold.**

_____ 5. **Hard to breathe on extremely high mountains.**

_____ 6. **Oxygen is very thin when you travel that high up.**

_____ 7. **Many of today's explorers.**

_____ 8. **Without many of these explorers.**

_____ 9. **These explorers made quite a difference in our world.**

_____ 10. **Isaac Newton made many important scientific discoveries.**

_____ 11. **Even today, modern scientists depend on their earlier discoveries.**

_____ 12. **Tomorrow's world will certainly be much different than our world today.**

Expository Writing

Expository writing *is a type of writing that informs, explains, describes, or defines the author's subject to the reader. Examples of this type of writing are cooking instructions, driving directions, and instructions on performing a task. The writer of an expository text cannot assume that the reader has prior knowledge or understanding of the topic.*

Write an expository paragraph on the two prompts that follow. Be sure to state the problem and list one or more solutions for it. **Remember:** Your task is to inform, explain, describe, or define.

1. **You are trapped in an empty room. The door is locked, and there is only one rectangular window above the door. There are no other windows in the room. In your bag, all you have is a roll of duct tape, a pen, a jump rope, and a belt. Describe how you will escape.**

2. **Each year at Forrest Hills Elementary, the Egg Drop Contest is conducted behind the school near the cafeteria. Entrants are to drop a raw egg from a height of almost ten feet without breaking the shell. Describe how you would design a plan to protect your egg and prevent it from breaking.**

Figuratively Speaking

Metaphors, **similes**, **hyperbole**, **personification**, *and* **oxymorons** *are examples of figurative language.*

- *A* simile *makes a comparison between two unlike things, using* **like** *or* **as**.
  Example: She was quiet as a mouse.
- *A* metaphor *makes a comparison between two unlike things, without using* like *or* as.
  Example: The road was a ribbon of moonlight.
- *A* personification *gives human characteristics and qualities to nonhuman things, like animals, nature, and objects.*
  Example: The moon peeked through the clouds and smiled down on us.
- *A* hyperbole *is an exaggerated statement used to heighten the effect.*
  Example: The ice-cream sundae had toppings that were a mile high.
- *An* oxymoron *is a figure of speech that combines normally contradictory terms.*
  Example: "Good night, good night! Parting is such sweet sorrow." – *Romeo and Juliet*

Circle the answer that best describes each example of figurative language.

1. **Johnny was white as a ghost.**
   A. metaphor B. simile C. personification D. oxymoron

2. **Santos looked so sad . . . like a candle with the flame gone.**
   A. metaphor B. personification C. simile D. hyperbole

3. **Flaming ice**
   A. simile B. oxymoron C. metaphor D. personification

4. **She's so happy, she's walking on clouds.**
   A. oxymoron B. simile C. hyperbole D. metaphor

5. **When he gets sick, my father is a big baby.**
   A. metaphor B. personification C. oxymoron D. hyperbole

6. **The ground rushed up to meet me very suddenly.**
   A. metaphor B. personification C. hyperbole D. simile

Helping Your Middle Schooler Get Ready: Week 2

These are the skills your middle schooler will be working on this week.

Math
- finding percents
- circumference
- bar graph
- measurement

Reading
- using a table of contents

Writing
- finding the main idea
- creating an outline

Vocabulary
- dictionary skills

Grammar
- spelling and grammar
- apostrophes

Here are some activities you and your middle schooler might enjoy.

Are We There Yet? You will need a recent road map for this activity. Ask your middle schooler to choose three places in your state he or she would like to visit. Make sure the destinations are in different areas of the state. Find and mark them on the road map. Have your child decide the best route to see all three places. List the roads and the necessary turns. Use a piece of string and map scale to find approximate distances. He or she will need to calculate destination to destination for each leg of the trip, and finally, calculate the total distance traveled. When your child has completed the trip route, go to an online map site and compare the routes.

Backyard Explorer Your middle schooler will need a ruler, string, and something to make four small poles (chopsticks work well), a magnifying glass, paper, and a pencil. Find an out of the way spot in the backyard (or park) and measure a 12" square. Insert a pole at each corner and wrap string around the poles to form a simple fence. Have your child use the magnifying glass to draw and/or record all he or she observes within the square. Are there any insects? What plant life is visible? What color is the soil? What else does he or she see, hear, and smell? Ask your child to observe his or her square at the same time each day this week. Each observation should last about 15 minutes. What changes did he or she notice?

Your middle schooler might enjoy reading the following books:

Fablehaven
by Brandon Mull

Pictures of Hollis Woods
by Patricia Reilly Giff

Why Is Snot Green?
by Glenn Murphy

My Week at a Glance

Use this page to set goals and make journal entries.

Goals for Monday

Journal: Write a humorous response to the question: *Why does an elephant have a trunk?*

Goals for Tuesday

Goals for Wednesday

Journal: You must attend two weeks of summer school to study your favorite subject. Which subject would you choose and why?

Goals for Thursday

Goals for Friday

Journal: If you could go anywhere to swim, where would you go? Explain.

Finding Percents

Change the following fractions to percents.

1. $\frac{5}{6}$ = _____%
2. $\frac{6}{7}$ = _____%
3. $\frac{3}{8}$ = _____%
4. $\frac{5}{8}$ = _____%
5. $\frac{4}{9}$ = _____%
6. $\frac{7}{10}$ = _____%
7. $\frac{4}{25}$ = _____%
8. $\frac{7}{12}$ = _____%

Change each percent to a decimal.

9. **50%** = _____
10. **75%** = _____
11. **30%** = _____
12. **85%** = _____
13. **1%** = _____
14. **10%** = _____
15. **150%** = _____
16. **55.5%** = _____

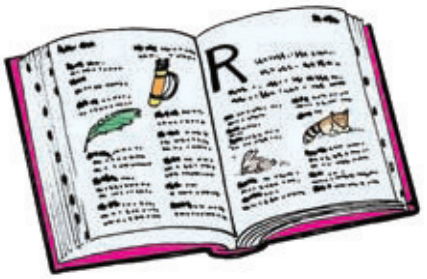
Change each percent to a fraction in simplest form.

17. **16%** = _____
18. **70%** = _____
19. **45%** = _____
20. **35%** = _____
21. **80%** = _____
22. **75%** = _____
23. **52%** = _____
24. **37.5%** = _____

Dictionary Dig

A good dictionary not only tells you a word's pronunciation, its parts of speech, and examples of correct usage, but also is the best source for accurate definitions of the word.

Match the vocabulary words in the left column with the correct meaning from the right column. A dictionary will certainly help.



_____ 1. **bump**	A. **a rogue, rascal**
_____ 2. **bumptious**	B. **horn of plenty**
_____ 3. **paradox**	C. **strike or knock with force**
_____ 4. **cornucopia**	D. **plentiful, abundant**
_____ 5. **knave**	E. **deception, fraud**
_____ 6. **ketch**	F. **giving punishment**
_____ 7. **punitive**	G. **peaceful**
_____ 8. **placid**	H. **gave in**
_____ 9. **relented**	I. **barricade, stronghold**
_____ 10. **condominium**	J. **diligent, steadily attentive**
_____ 11. **redoubt**	K. **noisily self-assertive**
_____ 12. **assiduous**	L. **self-contradiction**
_____ 13. **flim-flam**	M. **little star**
_____ 14. **copious**	N. **large sailing ship**
_____ 15. **asterisk**	O. **unit owned by individual in multi-unit building**

Canadian Travels

Imagine you are taking a trip to Nova Scotia, Canada. Use this table of contents from a travel guide to choose the best answer to each question.

Contents

1. **On which pages would you find information about things to see in Halifax?**
   A. pages 15–20
   B. pages 21–24
   C. pages 47–58
   D. pages 71–92

2. **Which section of the book probably has information about early settlers in Nova Scotia?**
   A. How to Get to Nova Scotia
   B. Visitor Services
   C. Customs Information
   D. History

3. **To find information about hotels, you should begin reading on what page?**
   A. page 9
   B. page 105
   C. page 219
   D. page 225

4. **To find information about fishing and hiking, you should look under—**
   A. Recreation
   B. Travel Tips
   C. Campgrounds
   D. Maps

5. **On which pages should you look for a schedule of special events that take place in August?**
   A. pages 15–20
   B. pages 25–30
   C. pages 193–206
   D. pages 219–224

Thieves Use Ruse to Steal Monet

There are 14 mistakes in the following newspaper article. Find the mistakes and rewrite each line correctly in the spaces to the right. Remember to look for spelling, grammar, and punctuation errors.

SEWARDSTONE, england—

Theaves stole a Monet

painting valued at $884,000

from a home on this village

in southeastern England after

one, desguised as a post man,

tricked the owners into leting

him in

But Scotland Yard says

the theves may not even realize

the wirth of the painting

Because they seemed to

grab the first won they

saw. A spokesman, expressed

concern that it may be dumpped

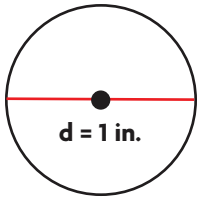
or smugled abroad.

Find the Circumference

Circumference *is the measurement around the* **outside** *of a circle.*
The **diameter** *is the measurement* **across the middle** *of the circle.*

To calculate circumference, use the formula **C = Π d.**
In the formula, C stands for circumference, Π stands for pi (which is equal to about 3.14), and d stands for diameter. To find the circumference multiply pi (3.14) by the diameter.

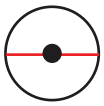
Example:



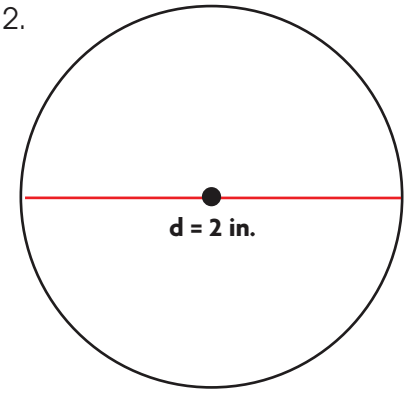
c = Π d
c = 3.14 x 1
c = 3.14 in.

Calculate circumferences of these hoops. Round your answer to the nearest hundredth.

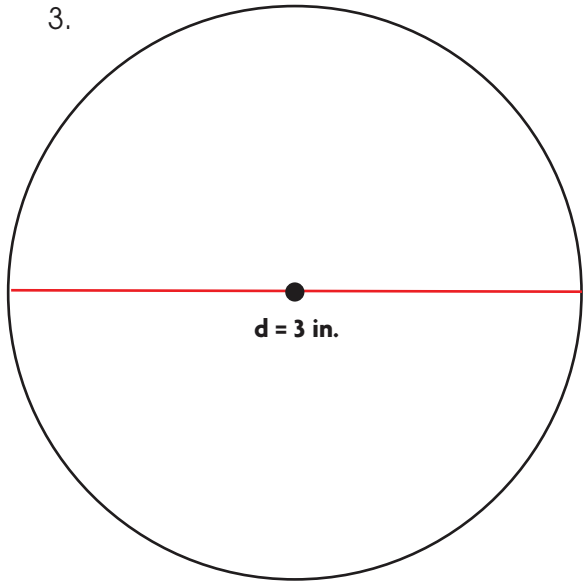
1.



2.



3.



Use a ruler to measure the diameter (and the formula Π d) to calculate the circumference of three circular objects in your home, yard, or park. (Examples: a plate, the rim of a trash can, or a bike tire)

	Object	Diameter in Inches	Circumference in Inches
1.			
2.			
3.			

Repurposing Found Objects

Using two peach baskets and an old soccer ball, Dr. Naismith invented the game of basketball. Now, it is your turn to invent a safe, indoor game for two or more people. You must use at least two of the following found objects from the list below:

Cotton Balls	Craft Sticks	Golf or Sponge Balls
Boxes	Paper Plates	Chopsticks
Straws	Paper or Plastic Cups	Milk Cartons
Plastic Spoons	Coffee Cans	Paper Tubes

HOW TO PLAY _____

(Name Your Game)

I. **Equipment needed**

A. _____

B. _____

C. _____

II. **Object of the game**

A. _____

B. _____

III. **Rules of the game**

A. _____

B. _____

C. _____

D. _____

Add any additional steps as needed. Try the game with a partner. Modify the game as required.

Yard-Line Math

A football field is divided into ten sections of 10 yards each. At each end of the field, 10-yard end zones are included. In this activity, the image of a 100-yard football field is depicted as a graph. Graphs use equal increments and contain data for comparison based on the increments. One space equals 10 yards and a half space equals 5 yards. Use the bold bars to determine yards gained by each player.

1. **Hall:** _____ full spaces _____ half spaces _____ yards
2. **Johnson:** _____ full spaces _____ half spaces _____ yards
3. **Martinez:** _____ full spaces _____ half spaces _____ yards
4. **Chow:** _____ full spaces _____ half spaces _____ yards
5. **Greene:** _____ full spaces _____ half spaces _____ yards

Your turn! Use a pen or colored pencil to make a graph of your data for the following scenario.

Suppose you run a total of 25 yards. Your starting point is the 50-yard line.

Where do you end your run? _____

Food Allergies

When Kyla Carter was 12, she went to an amusement park near her hometown of Kingston, New Hampshire. She splashed down on the log flume and then went to find her mother, who was standing in line to get something to eat. A neon sign warned: *French Fries Fried in Peanut Oil.*

All of a sudden, Kyla couldn't breathe. "It was very scary," Kyla says. "It's kind of intense. It almost feels like you're choking." Kyla was having a severe allergic reaction to peanuts. She and her mother believe that Kyla inhaled the peanut oil from the amusement park stand. Food allergies can be life threatening. Kyla stopped her reaction by taking a medicine that combats allergic reactions.

About three million Americans are allergic to peanuts and "tree nuts," such as walnuts, almonds, and cashews. (Peanuts aren't really nuts. They're legumes, like peas are.) Approximately 30,000 people in the United States go to the emergency room annually for food allergy reactions.

An allergy happens when the immune system mistakenly believes that a harmless substance is harmful. When the person eats the food, the immune system tries to protect the body by creating antibodies to that food. The next time the person eats that food, the immune system responds to the "invader" by releasing massive amounts of chemicals. These chemicals trigger allergic symptoms that can make a person ill.

The best way to manage allergies is to avoid the food that causes them and to have medication on hand in case an attack happens. "It's not easy," says Kyla, "but you get used to it."

Figuring out the main idea in any text you are reading will help with comprehension and will help you remember it better, too. On the lines below, write the main idea in each paragraph identified.

Paragraph 2, Main Idea: _____

_____

Paragraph 3, Main Idea: _____

_____

Paragraph 4, Main Idea: _____

_____

Paragraph 5, Main Idea: _____

_____

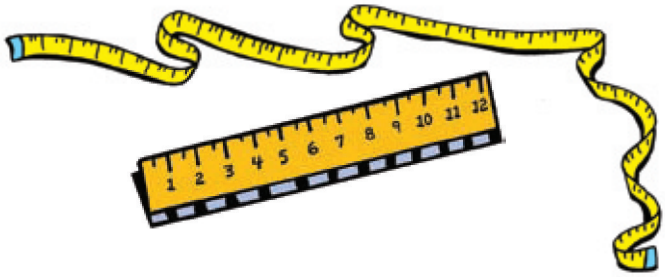
Source: The Food Allergy and Anaphylaxis Network

Linear Measurement Conversion

Convert each measurement of length into a different but equal length.
Remember: 12 inches equals 1 foot; 36 inches equals 3 feet; 3 feet equals 1 yard.

Example: 38 inches = 3 feet 2 inches

1. **56 inches = _____ feet and _____ inches**
2. **41 inches = _____ feet and _____ inches**
3. **$1\frac{1}{4}$ feet = _____ inches**
4. **$3\frac{3}{4}$ feet = _____ inches**
5. **$2\frac{1}{2}$ feet = _____ inches**
6. **3 yards = _____ feet**
7. **2 yards = _____ feet**
8. **4 yards = _____ feet**
9. **11 feet = _____ yards and _____ feet**
10. **16 feet = _____ yards and _____ feet**
11. **3 yards = _____ inches**
12. **2 yards = _____ inches**
13. **5 yards = _____ inches**
14. **65 inches = _____ yards and _____ inches**
15. **75 inches = _____ yards and _____ inches**



Accurate Apostrophes

An **apostrophe (')** *looks like a comma but is raised above the line of writing. Apostrophes are used in contractions, possessive nouns, and some plurals.*

Use apostrophes in **contractions**.
A contraction joins two words by omitting some of the letters. Place the apostrophe where letters have been omitted.
Examples: I would — I'd we will — we'll they have — they've she is — she's

Use an apostrophe to form the **possessive** *of any noun, whether singular or plural.*
For a **singular noun**, *add* **'s** *even if the word ends in s.*
Examples: Randy's car Sadie's toy Jonas's lever

For **plural nouns that end in *s***, *add only an apostrophe.*
Examples: the neighbors' yards the carpenters' tools ladies' voices

For **plural nouns that do not end in *s***, *add an apostrophe and* s (*'s*).
Examples: children's song the men's gymnasium the deer's trails

In each sentence below, underline the correct answer in the parentheses.

1. **I suppose (Im / I'm) confused about the assignment on writing the paragraph.**
2. **These (children's / childrens') books are due at the library by Friday.**
3. **Kathy thinks (were / we're) using the wrong formula for the experiment.**
4. **(Amia's / Amias') car would not start this morning when she was ready for work.**
5. **The (patrolmen's / patrolmens') cars have flashing blue lights mounted on top.**
6. **(Ive / I've) no idea who took the last cookie.**
7. **While (your / you're) dictionary is open, look up the definition.**
8. **The three (farmers' / farmer's) tractors were lined up for inspection.**
9. **Three students (didnt / didn't) show up on time today.**
10. **(Whos / Who's) going to the anniversary party with you?**
11. **(Troy's / Troys') bicycle was left outside the library.**

Helping Your Middle Schooler Get Ready: Week 3

These are the skills your middle schooler will be working on this week.

Math
- multiplying and dividing decimals
- reading a line graph
- probability

Reading
- fact or opinion
- reading for information

Writing
- creating a plot
- descriptive writing

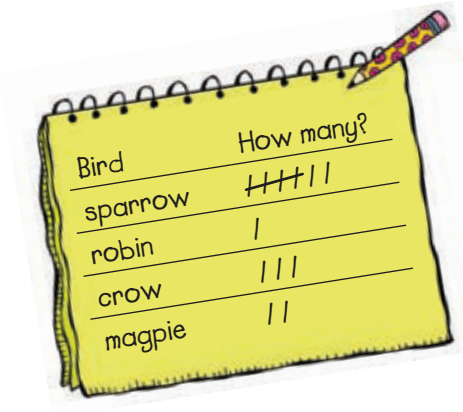
Vocabulary
- antonyms

Grammar
- diagramming sentences

Here are some activities you and your middle schooler might enjoy.

Inuit Soap Carving Some Inuits live by hunting, fishing, selling furs, working in mines, or by selling handicrafts. Your middle schooler can practice his or her carving skills using a large cake of soft bath soap, a butter knife or plastic knife, a pencil, and a toothpick or other sharpened wooden tools. Tell him or her to do the following: **1**) Decide on an animal to carve and draw it on the large bar of soap. Draw both side and front views. **2**) Use the knife to carve out the outline of the animal; cut carefully, a little at a time. **3**) Use the toothpick and other small wooden tools to carve eyes, nose, mouth, and any other features that the knife would be too large to carve. **4**) Round out edges by shaving with a knife and/or a damp cloth.

Take a Walk Have your middle schooler take a walk around your neighborhood with you or a family member. Be sure he or she takes a pencil or pen and a notepad or sheet of paper. As your child walks around, he or she should list the different types of animals or birds you see, and use tally or check marks to indicate several of any one type of animal or bird. After the walk, take a close look at his or her notes. Ask your child to create a chart or graph, showing the results of his or her walk. Which animal or bird did he or she find to be the most dominant in your neighborhood? Which ones were the least common?



Your middle schooler might enjoy reading the following books:

Nothing to Fear
by Jackie French Koller

Out of the Dust
by Karen Hesse

Crispin, The Cross of Lead
by Avi

My Week at a Glance

Use this page to set goals and make journal entries.

Goals for Monday

Journal: Which of these words describe you best: *curious, sensitive, outspoken, accident-prone*? Explain.

Goals for Tuesday

Goals for Wednesday

Journal: Describe the sounds you might hear outside your window on a warm, summer night.

Goals for Thursday

Goals for Friday

Journal: Which three adjectives would you use to describe your best friend? Explain.

Multiplying and Dividing Decimals

Study the rules and examples to help you solve the problems that follow. If necessary, use a separate sheet of paper to do your work.

Rule

1. Multiply as you would whole numbers.

2. The number of decimal places in the product is the sum of the decimal places in the factors.

Remember: *When the problem is presented horizontally, line up the numbers on the right. Do* **not** *line up the decimal points.*

Example:

Factor	.7	1 decimal place
Factor	x .7	1 decimal place
Product	.49	2 decimal places

.35 x 0.9 =

Correct	Incorrect
.35	.35
x 0.9	x 0.9

1. **.8 x .3**

2. **.4 x .6**

3. **2.53 x 0.3**

4. **3.04 x .04**

5. **.23 x .14**

6. **.75 x .75**

7. **5.96 x 3.8**

8. **3.57 x 2.4**

9. **16.4 x .75**

10. **20.3 x 0.06 =**

11. **5.05 x 0.02 =**

12. **0.109 x 53.9 =**

Rule

1. Bring up the decimal point into the quotient.

2. Divide. Add zeros if necessary

Example:

13.6 ÷ .34 = ⟶ .34)13.6 → .4

13. **3)66.3**

14. **2.8)12.88**

15. **1.6)9.6**

16. **5.2)208**

17. **.007)14.7**

18. **0.6)11.82**

19. **7.4)0.037**

20. **4.2)55.02**

Plotting a Play

Create a short plot outline for an original play. List the characters you want to portray in the play. Set the scene. Then outline the plot of your play.

_____

Title of the Play

List of actors and actresses and their parts:

_____

_____

_____

_____

Scene(s):_____

_____

_____

Outline the plot:_____

_____

_____

_____

_____

_____

_____

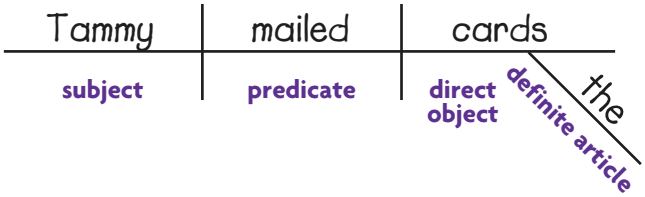
_____

Picturing a Sentence

Diagramming sentences can help you see how the parts of a sentence interact and function.

Here's how to diagram a sentence:

1. **Tammy mailed the cards.**



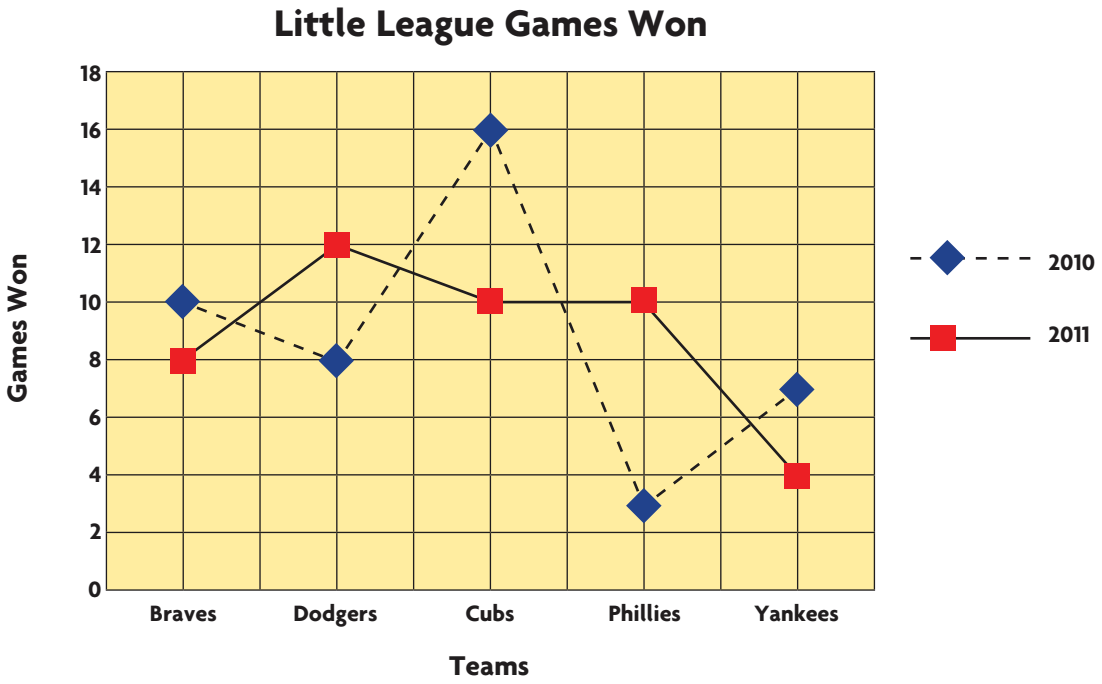
2. **Amir ate chocolate cookies.**

3. **Samantha proofread the story.**

4. **The spotted puppy chased the squirrel.**

Reading a Line Graph

Use the line graph to answer the questions. Circle the letter of the correct answer.



1. **Which team had the most consistent record for the two years?**
   A. Phillies B. Braves C. Cubs D. Dodgers

2. **Which team had the best year in 2010?**
   A. Phillies B. Braves C. Cubs D. Dodgers

3. **Which two teams won the same number of games in 2011?**
   A. Cubs & Phillies B. Braves & Phillies C. Dodgers & Braves D. Dodgers & Cubs

4. **Which team had the lowest overall performance?**
   A. Dodgers B. Phillies C. Braves D. Yankees

5. **Which team's average wins for the two years is 13?**
   A. Yankees B. Dodgers C. Phillies D. Cubs

6. **Overall in which season were teams most closely matched?**
   A. 2010 B. 2011 C. 2009 D. 2008

7. **The team that showed the greatest variability between the two years was the—**
   A. Cubs B. Dodgers C. Phillies D. Braves

8. **The greatest number of games won by a team in a single season was—**
   A. 16 B. 12 C. 14 D. 18

A Panda for a Pet?

Pandas look so cute and cuddly sitting on a toy store shelf. Admit it, you just want to take one home, don't you? You don't just want a stuffed one, though. A real live black-and-white panda is what you want. Well, you might want to be careful about what you wish for. Real giant pandas grow to be about five feet tall. An adult panda can weigh more than 300 pounds. One of those wouldn't just steal your covers. It would take over your entire bed!

Your pet panda would undoubtedly want a bedtime snack. These gentle giants love to eat. But don't go padlocking your refrigerator just yet. Pandas are very particular about their choice of food. They like to eat bamboo, a type of plant. Occasionally they eat meat, but mostly they eat lots and lots of bamboo. Pandas sit up to eat their food. They have thumbs on their front paws so they can hold the bamboo stalks and munch away. In fact, pandas spend about 16 hours a day munching.

All that eating can cause fatigue. So, pandas try to get lots of sleep. They nap wherever and whenever they get the urge. They sometimes nap in trees, and sometimes they find a nice cool cave for a midday nap.

Pandas are favorite animals not only in toy stores, but also in zoos. However, giant pandas are extremely rare. There are very few pandas either in captivity or in the wild. Scientists estimate that there are only about 1,000 giant pandas left in the entire world. So, while giant pandas are furry and fascinating, it is definitely best to stick with the toy-store variety. Real live pandas belong in their own home—the wild bamboo forests found in the highlands of China and Tibet.

Circle the letter with the best answer for each question.

1. **Which of the following statements is a fact?**
   A. Pandas look cute and cuddly.
   B. Pandas are fascinating animals.
   C. Giant pandas often grow to be five feet tall.
   D. A panda is the best house pet you could possibly buy.

2. **Which of the following statements is an opinion?**
   A. Pandas eat up to 16 hours a day.
   B. The giant panda is black and white.
   C. It's really annoying when a panda just lies down and falls asleep.
   D. Pandas sometimes eat meat.

3. **Besides a toy store, a good place to see a panda would be a—**
   A. pet store.
   B. playground.
   C. school.
   D. zoo.

4. **Which fact supports the idea that pandas are not ideal pets?**
   A. An adult panda can weigh more than 300 pounds.
   B. Pandas are favorite animals in zoos and in toy stores.
   C. Pandas sit up to eat their food.
   D. Pandas look cute and cuddly.

5. **What opinion is the author expressing in this selection?**
   A. Pandas are the most fascinating animals in the world.
   B. A pet panda would take over your bed.
   C. Pandas are fascinating animals, but they don't make good pets.
   D. The giant panda lives in the mountains of China.

Antonym Antics

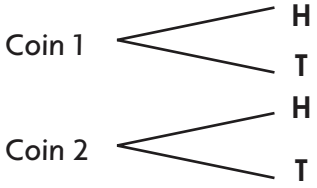
Read the words listed below. Then write the opposite of each word. Use a dictionary if necessary.

Word	Antonym	Word	Antonym
1. sunny	_____	16. rough	_____
2. sweet	_____	17. large	_____
3. pretty	_____	18. rapid	_____
4. stop	_____	19. sick	_____
5. open	_____	20. pull	_____
6. loud	_____	21. found	_____
7. fast	_____	22. sad	_____
8. empty	_____	23. stand	_____
9. sharp	_____	24. asleep	_____
10. enter	_____	25. dirty	_____
11. smile	_____	26. inhale	_____
12. run	_____	27. expand	_____
13. below	_____	28. absence	_____
14. quiet	_____	29. private	_____
15. always	_____	30. under	_____

It's Highly Probable

Experimental probability is based on the outcome of experiments.
Creating a tree diagram is one helpful way to find a probability.
A tree diagram is used to show the total number of possible outcomes in an experiment.

Example: Flipping 2 Coins



There are 4 possible outcomes: HH, HT, TH, TT

Create tree diagrams to solve the outcomes for each problem.

1. **Choosing cheese or pepperoni pizza and soda or lemonade.**

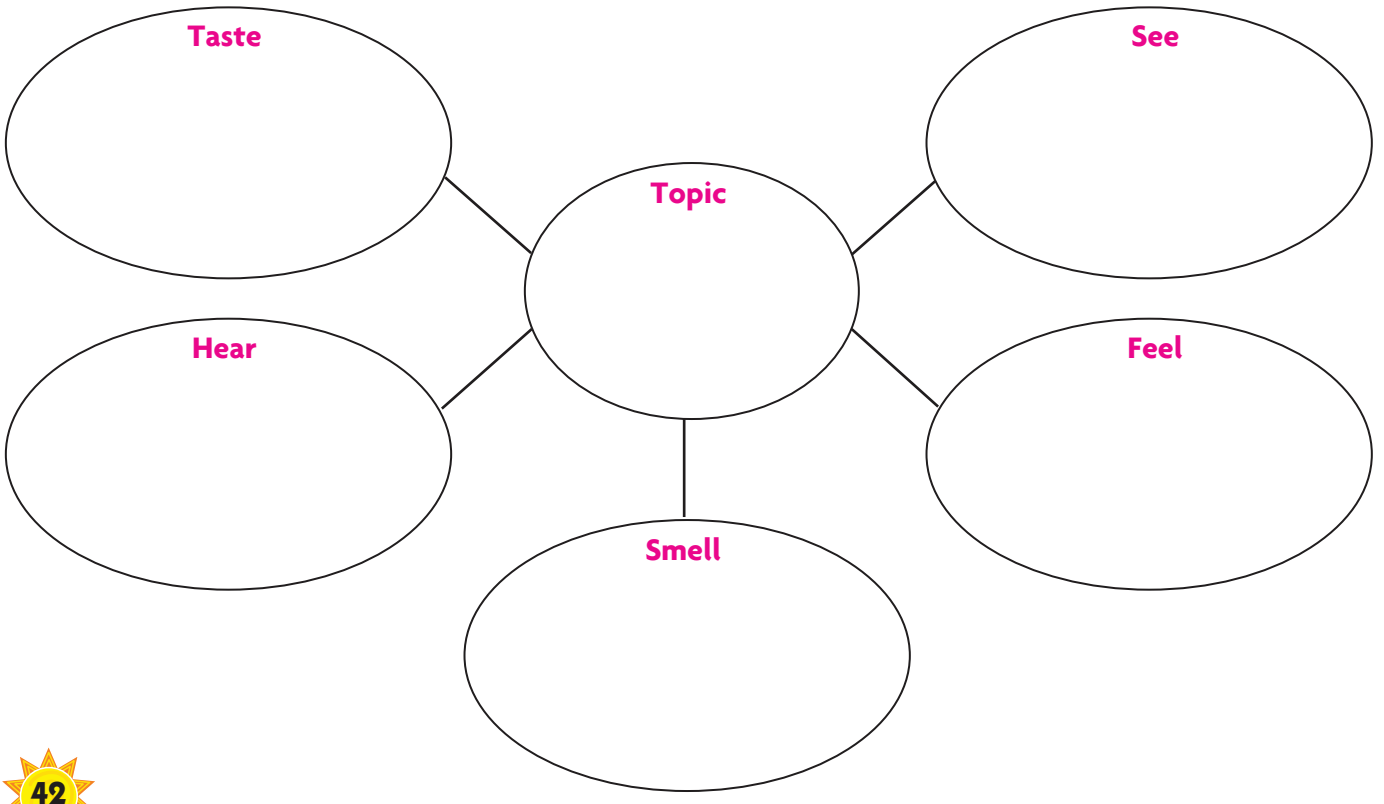
2. **Choosing a t-shirt, hoodie, or sweatshirt in gray, blue, or black.**

Descriptive Writing

Descriptive writing uses very precise words to "paint a picture" so that the reader "sees" exactly what you describe. The writer uses the five senses to create strong imagery.

Select one of the topics below and read the questions related to it. Use the graphic organizer to brainstorm descriptive words and phrases about the topic you chose. Then write a paragraph about the topic using at least five of the words or phrases you brainstormed.

An Oil Spill Where is it? How large is it? What damage has it done?	**An Approaching Storm** What kind of storm? What do you see? What do you hear?
A Family Tradition How many generations? What occasion is it? What is the tradition?	**An Overnight Campout** Where are you? What do you see? What do you smell?



Coral Crisis

If you want to see a lot of fish, then go to a coral reef. Thousands of species of ocean fish and animals, like lobsters and squid, stick close to coral reefs. These are stony structures full of dark hideaways where fish can lay their eggs and escape from predators. Without these underwater "apartment houses," there would be fewer fish in the ocean. Some species might even become endangered or disappear completely.

What some people don't realize is that reefs are living beings, too. They are made of thousands of tiny animals called polyps. These polyps soak seawater into their squishy bodies. They use the nutrients in the seawater to make stony tubes that fit around their bodies. These tubes protect the polyps and grow to make coral.

There are thousands of reefs in the world. Sadly, though, they are now in serious danger. More than one-third are in such bad shape that they could die within ten years. Many might not even last that long!

Scientists are working hard to find out how to help stop this destruction. There is a lot to learn, but there are some things we do know.

Pollution

Pollution on land runs into rivers and streams, which carry the poisons into the ocean. Chemicals from pollution kill coral. They may also make polyps weak, so they have less resistance to diseases. Also, fertilizer from farms causes seaweed to grow wildly, choking polyps.

Global Warming

Global warming is an overall increase in Earth's temperature. High water temperatures kill the greenish-gold algae, or tiny water plants, that live on coral. Coral gets food from the algae. Without it, the coral loses its color and eventually dies. This process, known as "coral bleaching," is becoming more frequent. Many scientists believe global warming is to blame.

People

People sometimes ram into reefs with their boats or drop anchors on them, breaking off large chunks of coral. Divers who walk on reefs can also do major damage. Since coral is so colorful and pretty, some people even break it off to collect for souvenirs.

A Solution

How can we help the reefs? We can learn more about them! We need to find out what humans do that damages reefs so we can change those activities. We can work together to make sure that coral reefs will be healthy and beautiful in the future.

Circle the letter with the best response to each question or statement.

1. **Which sentence does not support the conclusion that reefs are important to ocean life?**
   A. Fish lay their eggs on reefs.
   B. Fish hide in the reefs to escape their predators.
   C. Coral reefs can be seen from the air in very clear water.
   D. Without coral reefs, there would be fewer fish in the ocean.

2. **Based on the information in the article, which of the following conclusions can be drawn?**
   A. Farms are the coral reefs' worst enemies.
   B. There is no solution to the coral-reef problem.
   C. Some people collect pieces of coral for souvenirs.
   D. People need to understand what endangers the coral reefs if they are to be saved.

3. **Scientists believe the coral reefs are in danger from**
   A. ocean animals like lobster and squid.
   B. greenish-gold algae.
   C. too many fish eggs hatching in them.
   D. higher water temperatures caused by global warming.

4. **When a coral reef loses its color**
   A. it eventually dies.
   B. it is thrown away.
   C. it is eaten by lobsters.
   D. it can't eat algae.

5. **How does land pollution get into the ocean?**
   A. Beach sand gets into the ocean.
   B. Seaweed grows wildly.
   C. Algae contains pollution from the land.
   D. Streams and rivers carry pollution from the land into the ocean.

6. **Coral reefs are**
   A. nutrients in the seawater.
   B. produce water plants called algae.
   C. living animals called polyps.
   D. highly resistant to disease.

Helping Your Middle Schooler Get Ready: Week 4

These are the skills your middle schooler will be working on this week.

Math
- comparing integers
- fractions and percents
- adding integers

Reading
- reading a map
- cause and effect

Writing
- writing a paragraph

Vocabulary
- Latin prefixes and roots
- context clues

Grammar
- punctuation

Here are some activities you and your middle schooler might enjoy.

Practice Conversation Invite your middle schooler to join you in a fun practice conversation. Pretend you are a famous person—someone about whom you know quite a lot (a musician, a TV personality, a storybook character, an historical figure, etc.). Have your child pretend to be someone famous, too. Strike up a conversation with him or her. See how much you can learn about one another. Here are some possible conversationalists: Queen Victoria meets George Washington; Dracula meets Kermit the Frog; Buzz Aldrin meets Amelia Earhart; Leonardo da Vinci meets Thomas Edison.

Listen Up! Does your middle schooler watch the evening news? Ask him or her to watch the news and take notes on the important highlights of the newscast. Then have him or her repeat the news to you as if he or she is the newscaster. Not only will this teach your child to listen carefully, but it will also provide an opportunity to build speaking skills!

Your middle schooler might enjoy reading the following books:

Chasing Vermeer
by Blue Balliett

The Battle of the Labyrinth
by Rick Riordan

Island of the Blue Dolphins
by Scott O'Dell

My Week at a Glance

Use this page to set goals and make journal entries.

Goals for Monday

Journal: Would you rather be a movie star or a professional athlete? Explain.

Goals for Tuesday

Goals for Wednesday

Journal: Name the three qualities that you think are important for a teacher to possess. Explain.

Goals for Thursday

Goals for Friday

Journal: Write about a time you would like to have been temporarily invisible.

Latin Prefixes and Roots

The Latin root ***pose*** means "to put forth a suggestion" or "to put or place something down." Below are eight prefixes and eight definitions of modern English words with the root ***pose***. Read each definition. Then choose the prefix needed to create the word that matches each definition. Use a dictionary as needed.

com de dis ex im pro re trans

1. **to get rid of; to put out of the way** _____ **pose**
2. **to remove from office or power** _____ **pose**
3. **to put something together** _____ **pose**
4. **to lie at rest** _____ **pose**
5. **to place a burden on someone; to force yourself on someone** _____ **pose**
6. **to put an idea forward for consideration** _____ **pose**
7. **to put out in an unprotected place** _____ **pose**
8. **to move from one place to another; to change the normal position of** _____ **pose**

The Latin root ***ductus*** means "lead or leading." The missing word in each sentence below contains some form of the root plus one of the prefixes.

ab de pro re

9. **Despite the huge** _____ **in cost, the price was still beyond his budget.**
10. **Even after we challenged the charge, the server refused to** _____ **it from our bill.**
11. **The new model car will be in** _____ **by next spring.**
12. **As a prank, the seniors** _____ **the school mascot and placed it in the gym.**

Comparing and Ordering Integers

Integers *are all the positive and negative whole numbers and zero.*

- *Zero is neither positive nor negative.*
- *Positive integers are usually written without a sign and occur to the right of zero on a number line.*
- *The number line to the left of zero contains* **negative** *integers, and negative numbers are always written with a – sign.*
- *For any two numbers on a horizontal number line, the integer farther to the right has the greater value.*

You can use the number line above to complete the following exercises.

Use the symbols > or < to compare each pair of numbers.

1. **4** _____ **–2**
2. **–3** _____ **0**
3. **3** _____ **0**
4. **–5** _____ **5**
5. **9** _____ **–10**
6. **–8** _____ **–4**
7. **–8** _____ **–10**
8. **0** _____ **–8**
9. **–374** _____ **0**
10. **–410** _____ **–198**

List the integers below in order from least to greatest.

11. **3, –5, –2, 4, 0** _____
12. **0, –7, –3, –9, 1** _____
13. **8, –8, –4, 2, 5** _____
14. **6, 1, –7, 3, –2** _____
15. **–3, –8, 8, 3** _____
16. **–1, 2, –2** _____
17. **–6, 5, –2, –3, 2** _____
18. **–8, –2, –3, 0** _____
19. **0, 5, –3, –7** _____
20. **–3, –5, 0** _____

Punctuation Pointers

Punctuation marks include commas, semicolons, colons, apostrophes, quotation marks, and various end marks (periods, question marks, and exclamation points).

Add the missing punctuation marks to each sentence. Remember to place periods and commas **inside** closing quotation marks. The number in parentheses tells you how many marks of punctuation are missing in each sentence.

1. **(1) Where did you and your family vacation this summer**
2. **(4) The Phillies Red Sox Braves and Astros all won games last week**
3. **(3) Canadas biggest city is Montreal but Ottawa is its capital**
4. **(4) What happened at Lexington Massachusetts on April 19 1775**
5. **(7) Chicken pox the doctor said is a contagious disease**
6. **(4) Mom shouted Bring your cleats**
7. **(2) Jeremy will order pizza and salad and Carmen will probably get Chinese food**
8. **(3) Robert Louis Stevenson wrote *Treasure Island Kidnapped* and *David Balfour***
9. **(1) Jose played soccer but not tennis**
10. **(2) When Jane began to read she read *was* as *saws***
11. **(2) My mother is from Portland Oregon**
12. **(4) Deacon asked Was your ankle surgery a success**
13. **(2) Evandales choir performed all afternoon at Sheridan Park**
14. **(4) That was the best book I have ever read said Josh**
15. **(4) Youll recognize Sadie by her red hair green eyes and freckles**

What Are Context Clues?

If you are not sure what a word means, **context clues** can help you. Using context clues means using the words or sentences around the word to figure it out. Sometimes a word's definition becomes clearer after reading the entire sentence or entire paragraph where the word appears.

Use context clues to decipher the meaning of the word that is underlined.

1. **Hurricanes and tornadoes are <u>treacherous</u>. Only a very foolish person would actually go out during that kind of weather.**
   A. safe B. dangerous C. faithful D. delectable

2. **Lakes occupy less than two percent of the Earth's surface, yet they help <u>sustain</u> life. For example, lakes provide us fish to eat, irrigate crops, and produce electrical power.**
   A. support B. hinder C. delay D. destroy

3. **I am really hungry! That banana did not <u>appease</u> my hunger. I want a sandwich now.**
   A. confound B. aggravate C. multiply D. satisfy

4. **Some people think that discussing the dangers of cigarette smoking <u>obscures</u> the real concern. They believe the real issue is that smokers are discriminated against.**
   A. to hide, conceal B. to confront C. to make obvious D. to shorten

5. **The ancient Greeks <u>pioneered</u> many of the kinds of writing we consider standard today.**
   A. complicated B. developed C. damaged D. erased

6. **The ship <u>vanished</u> during the hurricane. No survivors from the lost ship have ever been found.**
   A. arrived B. departed C. returned D. disappeared

7. **This new virus has really <u>sapped</u> Susan's energy. She becomes tired just walking across the room. I hope she is better soon.**
   A. increased B. make slow C. drained D. enhanced

8. **Fifty-five <u>prominent</u> delegates attended the Philadelphia Convention in 1787. Some delegates had served in Congress, while others were important people in their home states. These men are often referred to as the Framers of the Constitution.**
   A. unimportant B. unknown C. common D. important

My Hero

Select a famous person from one of the following categories: Historical Hero, Legendary Hero, Superhero, Modern Hero, or Everyday Hero. List some questions that you would like to know about your hero. Once you've researched your subject, list some of the physical and moral qualities that the person possesses.

1. **Who is your hero?**_____

2. **For what is your hero known? What does or did he or she do in life?**_____

3. **What special qualities does your hero possess?**_____

4. **Write a short paragraph that explains why you believe this person is a hero.**

Fractions and Percents

Solve each word problem below. Write your answer in the space provided.

1. **Ten friends attended Sandra's birthday party. Six brought gifts. Express this as a fraction in lowest terms.**

2. **Deacon correctly answered 45 of the 50 questions on his summer school math test. What percent of the questions did Deacon answer correctly?**

3. **On the same math test, Carla received an 80% score on her test. What fraction of the questions did she correctly answer?**

4. **The band at Turner Middle School lost 20% of its 230 band members from last year. How many band members are left?**

5. **At summer camp, the girls ordered 9 pizzas, and 4 of them were pepperoni pizzas. What fraction of the pizzas were pepperoni?**

6. **Mrs. Langley is planning a field trip for her swimming teams. She needs 6 chaperones for every 50 girls. If she has 150 girls, how many chaperones will she need?**

7. **Sasha sold 28 dresses over the weekend at her yard sale. This was 30% of all the dresses in her closet. How many dresses did she have in her closet?**

8. **The garden club members had 250 tickets to sell to their benefit. They sold a total of 179. What percent of tickets did they sell?**

Traveling the United States

Use the map of the United States to answer the questions below.

1. **Which state is directly north of North Carolina?** _____

2. **Which states share the southern border of New York?** _____

4. **Which states border Mexico?** _____

6. **Which New England state does not have a seacoast?** _____

8. **Which state is southeast of Alabama?** _____

9. **Which states share a border with Montana?** _____

10. **Which states share the border of Texas?** _____

11. **Name the three states that border Louisiana.** _____

12. **Which states are directly west of Idaho?** _____

Adding Integers

Here are some rules for adding integers.

- *The sum of any two positive integers is a positive integer.*
  Example: *3 + 5 = 8*
- *The sum of any two negative integers is a negative integer.*
  Example: *–3 + (–5) = –8*
- *The sum of two integers with opposite signs is found by subtracting the digit of lesser value from the integer of greater value and keeping the sign of the greater.*
  Examples: *5 + (–3) = 2* *–5 + 3 = –2*

Solve the following problems. You can use the number line to help you.
Begin at the first number and move **left** if the next number is negative or **right** if it is positive.

1. **–3 + (–5) =** _____
2. **8 + 0 =** _____
3. **–5 + (–2) =** _____
4. **–3 + 0 =** _____
5. **6 + (–4) =** _____
6. **3 + (–3) =** _____
7. **–8 + (–2) =** _____
8. **0 + 9 =** _____
9. **0 + (–6) =** _____
10. **–3 + (–7) =** _____
11. **+10 + (–10) + 6 =** _____
12. **–3 + 6 + (–2) + (–1) =** _____
13. **–2 + 5 + (–1) + 2 =** _____
14. **–7 + (–3) + 5 + (–1) =** _____
15. **4 + 0 + (–7) + (–4) =** _____
16. **–3 +(–3) + 0 + 3 + 3 =** _____
17. **5 + 6 + (–9) + (–2) =** _____
18. **7 + (–1) + (–2) + 3 =** _____
19. **–1 + 5 + (–4) + (–6) =** _____
20. **9 + (–2) + 3 + (–4) =** _____

Attack on the Titanic

Read the passage. As you read, try to identify causes and effects.

On the cold, dark night of April 14, 1912, more than 2,000 people sailed across the Atlantic on a giant cruise ship called the R.M.S. *Titanic*. With hardly any warning, the ship scraped a massive iceberg. As water rushed into the ship, passengers scrambled to board lifeboats. When the ship sank three hours later, more than 1,500 people died.

The world's most famous shipwreck lay undisturbed until 1985. That year, oceanographer Robert Ballard and his crew discovered the *Titanic*'s resting place deep in the North Atlantic. Harsh ocean conditions had caused the ship to corrode, and the crew suspected the damage would get worse over time.

Exactly how much has the ship corroded since its discovery? And why? In June 2004, Ballard led a team of scientists back to the *Titanic* to find out.

The *Titanic* was supposed to sail from Southampton, England, to New York City.

Dangers of the Deep

Titanic lies in the abyssal zone, a part of the ocean about 2.5 miles below the surface. Because the conditions in this zone are so harsh, few creatures live here. No light makes it to the sea floor, and temperatures hover around a chilly 35 degrees Fahrenheit.

The conditions in this zone also make it tough for a shipwreck. According to Dwight Coleman, a scientist and member of Ballard's crew, because the pressure of the water here is so strong, it's pushing *Titanic* into the ocean floor. "It's like there's an elephant standing on every square inch," he said.

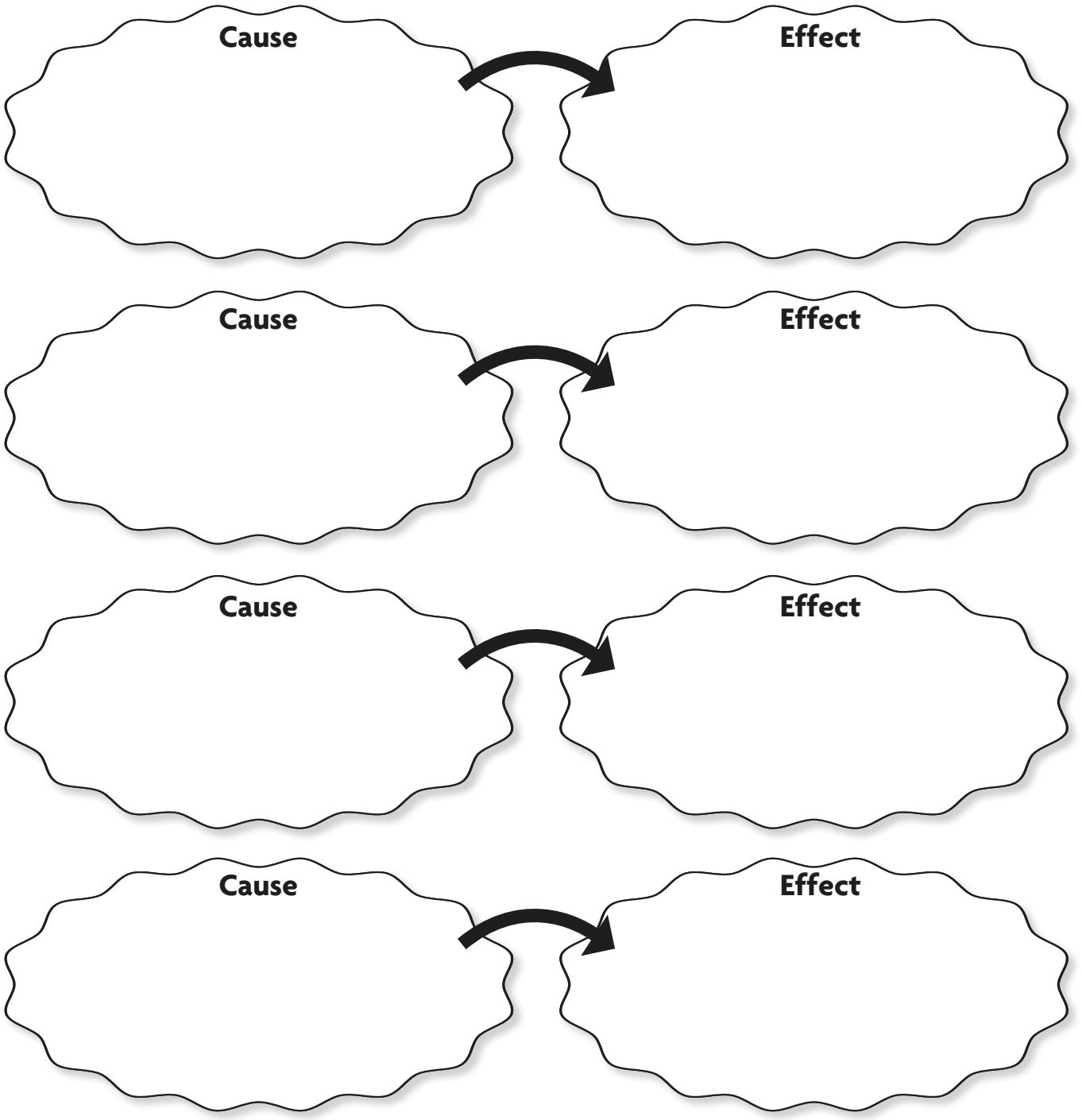
The high levels of salt in the ocean also play a role in the ship's breakdown. Much of the *Titanic* is made from iron. When iron is placed in water, it will corrode over time. However, when salt is present in the water, that results in the metal corroding a lot faster.

Human visitors cause damage too. Markings show that submersibles have landed on the ship's deck, causing it to break.

And more than 6,000 artifacts, like coins and silverware, have been removed.

Cause and Effect

Reread "Attack on the *Titanic*." Complete the graphic organizer to show the causes and effects of the shipwreck's breakdown.



Helping Your Middle Schooler Get Ready: Week 5

These are the skills your middle schooler will be working on this week.

Math
- subtracting integers
- multiplying integers
- dividing integers
- equivalent fractions

Reading
- finding the main idea
- researching information

Writing
- elaboration

Vocabulary
- word usage

Grammar
- kinds of sentences
- spelling demons

Here are some activities you and your middle schooler might enjoy.

Create a Raised-Line Design Invite your child to create some art! First, gather the following items:
- Tracing paper (waxed paper will work)
- 2 pieces thin cardboard (the back of a cereal box will work)
- Scissors
- White glue
- Thick cotton cord (macramé cord works well)
- Black and gold paint (spray works best and spreads evenly)

Have your middle schooler follow these directions: **1**) Draw a simple design on tracing paper and transfer onto one piece of cardboard. **2**) Cut out the shape. **3**) Glue the cord down over the lines of the design. **4**) When the glue has dried, paint the design with two coats of gold paint. Be careful because this process can be quite messy. **5**) Paint the second cardboard black and allow it to dry. **6**) Trim the gold design and mount on the black cardboard.

How to Remember a Person's Name Give your middle schooler these hints: When you are introduced to a person for the first time, listen carefully in order to remember the name. If you were unable to hear the name the first time, ask the person to repeat his or her name. That is actually a compliment; it shows you are interested. In the conversation, use the person's name often. Another hint is to visualize the person's name spelled out as you picture his or her face, or try to relate their name with something familiar.

Your middle schooler might enjoy reading the following books:

Zach's Lie
by Roland Smith

Bound for Oregon
by Jean Van Leeuwen

Incident at Hawk's Hill
by Allan W. Eckert

My Week at a Glance

Use this page to set goals and make journal entries.

Goals for Monday

Journal: Do you agree with this statement: "People are basically good at heart"? Why or why not?

Goals for Tuesday

Goals for Wednesday

Journal: How would your life to be different if Earth had the gravity of Mars?

Goals for Thursday

Goals for Friday

Journal: A genie grants you three wishes. What are they?

Four Kinds of Sentences

A **declarative** *sentence makes a statement. It ends with a period.*
Example: Thomas Edison made the first lightbulb.

An **interrogative** *sentence asks a question. It ends with a question mark. (?)*
Example: Is Alaska the largest state in the United States?

An **imperative** *sentence expresses a command or request. It usually ends in a period.*
Example: Please mail this package for me.

An **exclamatory** *sentence expresses strong or sudden feelings. It is followed by an exclamation point. (!)*
Example: I made a perfect score on the test!

On the line, identify each sentence below by writing **D** for declarative, **IM** for imperative, **IN** for interrogative, and **E** for exclamatory. Add the proper punctuation mark at the end of the sentence.

_____ 1. **My family and I visited Alaska this summer**

_____ 2. **Is Alaska larger in square miles than Texas**

_____ 3. **Did you know that the highest mountain in North America is in Alaska**

_____ 4. **Alaska is home to many native Americans**

_____ 5. **Russians went to Alaska looking for the furs**

_____ 6. **Americans went to Alaska to look for gold**

_____ 7. **Sizeable amounts of "black gold" were discovered in Alaska in 1968**

_____ 8. **Actually, what is "black gold"**

_____ 9. **"Black gold" is another name for oil**

_____ 10. **Don't go to Alaska without some warm clothing**

_____ 11. **Watch out for the wild bear behind you**

_____ 12. **We'd like to hear more about your trip**

Subtracting Integers

Here are some rules for subtracting integers.

- *A positive integer subtracted from a larger positive integer remains a positive integer.*
  Example: 5 – 3 = 2
- *When subtracting a positive integer from another positive integer of lesser value, the difference is always a negative integer.*
  Example: 5 – 7 = –2
- *When subtracting a negative integer from either a positive or a negative integer, first change the two negative signs to a positive sign and then solve.*
  Examples: 5 – (–3) = ⟶ 5 + 3 = 8
  –5 – (–3) = ⟶ –5 + 3 = –2
- *A positive integer subtracted from a negative integer will result in a negative integer.*
  Example: –5 – 3 = ⟶ –5 + (–3) = –8

Solve the following problems. You can use the number line to help you.

1. **10 – 17 =** _____
2. **–5 – 5 =** _____
3. **8 – 13 =** _____
4. **–8 – (–13) =** _____
5. **–5 – (–12) =** _____
6. **–10 – (–10) =** _____
7. **5 – 8 =** _____
8. **8 – (–2) =** _____
9. **6 – (–3) =** _____
10. **4 – (–6) =** _____
11. **–9 – (–4) =** _____
12. **–7 – (–8) =** _____
13. **10 – 7 =** _____
14. **–7 – 0 =** _____

Complete the following problems without using the number line.

15. **–21 – 9 =** _____
16. **–10 – 6 =** _____
17. **16 – (–16) =** _____
18. **–11 – 13 =** _____

Grab Some Interest

You can often expand a simple paragraph in a story, article, essay, report, or whatever you are writing and make it more interesting by

- *combining short, choppy sentences.*
- *adding details to help create a picture, mood, or feeling.*
- *replacing dull, overused, or inexact nouns, verbs, and adjectives.*
- *changing the order of words in sentences.*
- *adding words or phrases such as* also, first, meanwhile, in fact, however, eventually, *and* in the end *to connect ideas or events.*

Expand and rewrite each of the paragraphs using some of the suggestions above.

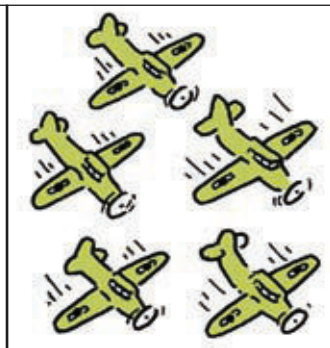
It was dusk. The snow began to fall. I was surprised. It was the end of April. Snow is unusual then. The temperature had fallen. That was earlier. Clouds began moving in. I knew a storm was coming. Would it be a snowstorm? I woke up the next morning. Snow covered the ground. There would be no baseball practice today!

Something smelled good. We had just passed the bakery. We looked at each other. We smiled. We headed back to the bakery. Maggie opened the door. We went inside. What a sight! There were all kinds of goodies. There were breads and rolls. Some were just out of the oven. I went from case to case. Everything looked and smelled good. It was a hard decision. Finally, I chose.

The Mysterious Fraction Zone

Welcome to the Mysterious Fraction Zone—where every fraction is equivalent to an unexplained mystery! Match the fraction under each picture to the two equivalent fractions in the Fact Bank. These facts reveal a mystery.

$\frac{1}{3}$ _____ _____



$\frac{4}{5}$ _____ _____

$\frac{1}{2}$ _____ _____

$\frac{2}{7}$ _____ _____

Fact Bank

$\frac{250}{500}$ In 335 B.C. Plato wrote about an ancient empire, Atlantis, that after a day and night of rain sank to the bottom of the ocean.

$\frac{80}{100}$ Five Avenger torpedo bombers in perfect working order left Fort Lauderdale Naval Air Station with full loads of fuel on a clear day.

$\frac{160}{320}$ Underwater expeditions in the Bermuda Triangle have uncovered stone heads, carved pillars, and pyramids believed to be part of the lost civilization of Atlantis.

$\frac{78}{273}$ The USS Cyclops, a 19,600-ton Navy boat, left the West Indies bound for Norfolk, Virginia, but it never arrived.

$\frac{76}{95}$ Several hours after takeoff, the Avengers radioed the control tower, saying that everything was strange and they were not sure of their directions . . . then, silence.

$\frac{70}{210}$ The Mary Celeste, a 103-foot-long ship, was found perfectly intact and abandoned at sea. There was no sign of bad weather or foul play.

$\frac{26}{91}$ The navy boat—and its 309 crew members—disappeared without a trace in fair weather, without sending an SOS.

$\frac{56}{168}$ What mysterious event would lead Captain Briggs, his wife, his daughter, and eight crew members to leave their ship with a meal still on the table?

Choose Your Words—Correctly!

Doesn't *is the contraction for* **does not**.
It is used with singular nouns and pronouns.

Don't *is the contraction for* **do not**.
It is used with plural nouns and pronouns.

Use **may** *to ask for permission.* **Example: May** I use this towel at the swimming pool?
Use **can** *to express the ability to do something.* **Example:** Roger **can** certainly swim well.

Teach *means* to give instruction. **Example:** I will **teach** you how to swim.
Learn *means* to acquire knowledge. **Example:** Did you **learn** to speak Spanish in Mexico?

Sit *means* to take a resting position. *Other forms of this verb are* sitting, *and* sat.
Set *means* to place. *The principal parts are* set, setting, *and* set.

Lie *means* to recline or to occupy a certain space. *Forms that use this meaning are* lie, lying, lay, *and* lain.
Lay *means* to place. *Forms that use this meaning are* lay, laying, *and* laid.

Underline the correct word choice to complete each sentence.

1. **Please (set, sit) the gifts on the table.**
2. **Will you (teach, learn) me to play tennis?**
3. **Where have you (lain, laid) the community summer newsletter?**
4. **Carlos, will you please (sit, set) yourself down on the sofa?**
5. **Mrs. Long, (may, can) I finish my composition tomorrow?**
6. **My sister is going to (teach, learn) to cook spaghetti from a chef.**
7. **Some of the elevators in the building (doesn't, don't) go to the penthouse.**
8. **(Doesn't, Don't) this glass tray belong to your grandmother?**
9. **Mark, where did you (lie, lay) my car keys?**
10. **Mrs. Marcus said, "Class, please (sit, set) down now!"**
11. **Please do not (lie, lay) on that new rug in the foyer.**
12. **Eliot, (may, can) you repair my bicycle tire?**

Multiplying Positive & Negative Integers

Here are some rules to multiply integers.

- *The product of two positive* **or** *two negative integers is* **positive**.
  Examples: 3 x 4 = 12 −3 x −4 = 12
- *The product of a positive* **and** *a negative integer is* **negative**.
  Examples: −3 x 4 = −12 3 x −4 = −12

Study the equations below. Write the rule that applies to the equation on the line.
The first one is done for you.

1. **−3 x (−4) = 12** negative x negative = positive
2. **−3 x 4 = −12** _____
3. **−3 x 1 = −3** _____
4. **3 x 1 = 3** _____
5. **3 x (−4) = −12** _____

Solve the equations below. Refer to the rules above, if necessary.

6. **20 x 12 =** _____
7. **−16 (5) =** _____
8. **20 x (−4) =** _____
9. **11 x (−9) =** _____
10. **−5 x 15 =** _____
11. **−10 x (−5) =** _____
12. **8 x 6 =** _____
13. **−20 (−2) =** _____
14. **−15 x (−10) =** _____
15. **−5 x 0 =** _____
16. **3 x 5 =** _____
17. **3 x (-5) =** _____
18. **−3 x 5 =** _____
19. **−3 x (-5) =** _____
20. **3 x 0 =** _____

Spelling Demons

Look carefully at the three words in each group below. If a word is misspelled, circle it and spell it correctly on the line. If all three words are spelled correctly, write **C**.

1.	**belittle**	**detach**	**imposible**	_____
2.	**cabinet**	**iresistable**	**division**	_____
3.	**centigram**	**eficient**	**knives**	_____
4.	**autumn**	**deny**	**imaginery**	_____
5.	**aluminum**	**crutch**	**foolish**	_____
6.	**blouse**	**dissaprove**	**innocent**	_____
7.	**civilain**	**enormous**	**larynx**	_____
8.	**atorney**	**delicate**	**honorary**	_____
9.	**character**	**election**	**lacquer**	_____
10.	**cement**	**edable**	**knead**	_____
11.	**camouflage**	**earnest**	**library**	_____
12.	**bauble**	**destenation**	**import**	_____
13.	**advantage**	**conscience**	**expert**	_____
14.	**associate**	**defeat**	**goverment**	_____
15.	**bachellor**	**descent**	**imitate**	_____

Dividing Integers

Here are some rules for dividing integers.

- *Divide as you would with whole numbers. The quotient of two positive or two negative integers is* **positive**.
  Examples: –12 ÷ –3 = 4 12 ÷ 3 = 4
- *Divide as you would with whole numbers. The quotient of a positive integer* **and** *a negative integer is* **negative**.
  Examples: –12 ÷ 3 = –4 12 ÷ (–3) = –4

Study the equations below. Write the rule that applies to the equation on the line. The first one is done for you.

1. **–15 ÷ –3 = 5** negative ÷ negative = positive
2. **–15 ÷ 3 = –5** _____
3. **15 ÷ –3 = –5** _____
4. **15 ÷ 3 = 5** _____
5. **–9 ÷ –3 = 3** _____

Solve the equations below. Refer to the rules above if necessary.

6. **56 ÷ (–14) =** _____
7. **72 ÷ (–4) =** _____
8. **–40 ÷ (–4) =** _____
9. **–87 ÷ 3 =** _____
10. **12 ÷ (–4) =** _____
11. **0 ÷ (–2) =** _____
12. **15 ÷ 3 =** _____
13. **–48 ÷ (–6) =** _____
14. **–16 ÷ 4 =** _____
15. **–6 ÷ 0 =** _____
16. **–45 ÷ (–5) =** _____
17. **2 ÷ 0 =** _____
18. **–20 ÷ (–4) =** _____
19. **81 ÷ 9 =** _____
20. **–25 ÷ 5 =** _____

What's the Big Idea?

To get the most out of what you are reading, you need to be able to identify the main idea being expressed. The main idea is the **core of the story** or passage. It is the message the writer wants you to remember. As you read the passage, think about the most important points.

In the mountains of southern Thailand in November of 1988, 4 inches (10 cm) of rain fell in five days, causing widespread flooding which extended over the whole Tapi River basin. Massive mudslides tore down mountainsides in the early hours of August 11, uprooting thousands of cut logs, and burying seven villages under water and mud. At least 350 people died, and over 1,000 people were made homeless.

This disaster caused a public uproar. Many people believed that heavy logging caused deforestation, soil erosion, and water runoff, which resulted in the catastrophe. As a result of public pressure, the Thai government in January of 1989 banned all commercial logging in the country. Before the ban, Thai officials studied satellite photographs that showed the country's forest cover had declined from 29 percent in 1985 to 19 percent in 1988. At this rate of deforestation, Thailand would have lost about half of its forest by 2022.

Thai timber companies, infuriated by the ban, forced the government to compensate them for their timber losses. Then, companies started logging operations over the border in Cambodia, Laos, and Myanmar. The logs were transported back over the border into Thailand and increased the cost of wood in Thailand.

Even though the ban on logging was an important step in preserving Thailand's forest resources, other threats remained. Rural villagers today still harvest forest products for their own use. In many regions of Thailand, it is common for farmers to clear and burn forests to cultivate their land. The Thai government's former policies of allowing landless people to settle on logged forest reserves poses yet another threat. Today in Thailand, approximately five million people inhabit forest reserves.

What is the main idea of each paragraph in this passage?

First Paragraph: _____

_____

Second Paragraph: _____

_____

Third Paragraph: _____

_____

Fourth Paragraph: _____

_____

What is the main idea of the passage as a whole? _____

_____

Stretch Your Brain

How many of the following trivia statements can you complete in ten minutes? Use a variety of resources for your research.

1. **Number of rings on the Olympic flag:** _____
2. **Number of sheets in a ream of paper:** _____
3. **The number of players on a soccer team:** _____
4. **Amnesia causes one to lose his or her** _____.
5. **Robinson Crusoe meets only one other person on the deserted island. He called him** _____.
6. **These animals eat both plants and animals:** _____
7. **The tallest mountain in the United States is located in the state of** _____.
8. **The largest planet in our solar system is** _____.
9. **A common marsupial found in the U.S. is the** _____.
10. **The number of notes in an octave is** _____.
11. **Musicians have a special instrument that they use to beat time called a** _____.
12. **Name the U.S. president who served the most years in office.** _____
13. **Sailors and other travelers have always followed this star:** _____
14. **The number of leaves that makes a clover lucky is** _____.
15. **The red planet named for the Roman god of war is** _____.

Helping Your Middle Schooler Get Ready: Week 6

These are the skills your middle schooler will be working on this week.

Math
- graphing coordinates
- problem solving with integers
- order of operations

Reading
- following directions
- reading for meaning

Writing
- narrative writing

Vocabulary
- word work

Grammar
- gerunds
- infinitives

Here are some activities you and your middle schooler might enjoy.

Test Your "Ear-Q" Challenge your child to listen as you read aloud steps to follow to drink out of a sheet of paper! First, gather the following items:
• an 8 ½-inch square sheet of paper • a ruler • a pencil
Have your child perform each step as you read it.
1) Draw a line from the top right-hand corner of the paper to the bottom left-hand corner. This is the diagonal. **2**) Fold the paper in half along the diagonal to make a triangle. **3**) Lay the folded triangle flat with the fold facing you. **4**) Take the right corner of the triangle and fold it over toward the middle of the left side of the triangle. Press it flat. **5**) Take the left corner of the triangle and fold it over toward the middle of the right side of the triangle. Press it flat. **6**) Separate the two pieces of paper that make the top point of the triangle. **7**) Take one piece and fold it down over the folded corners (to make a flap). **8**) Turn the paper over and fold the other piece down (to make the other flap). **9**) Hold the folded paper in one hand and separate the flaps by inserting the thumb and index finger of the other hand between them. **10**) Now, fill your paper cup with water and have a drink. Cheers!

Landmark Locations Take your middle schooler to see some local landmarks. Bring a camera, notebook, and a pen. Ask your child to take photographs of the landmark(s) and record the location in the notebook. Create a map with photos and captions that identify each location.

Your middle schooler might enjoy reading the following books:

The Pearl
by John Steinbeck

The Rescuers
by Allan Zullo

Any of the *Wizard of Oz (unabridged)* books
by L. Frank Baum

My Week at a Glance

Use this page to set goals and make journal entries.

Goals for Monday

Journal: What color might express how you feel today? Name the color and describe how the color feels.

Goals for Tuesday

Goals for Wednesday

Journal: Imagine that you are floating on a cloud. What does the world look like? How do you feel?

Goals for Thursday

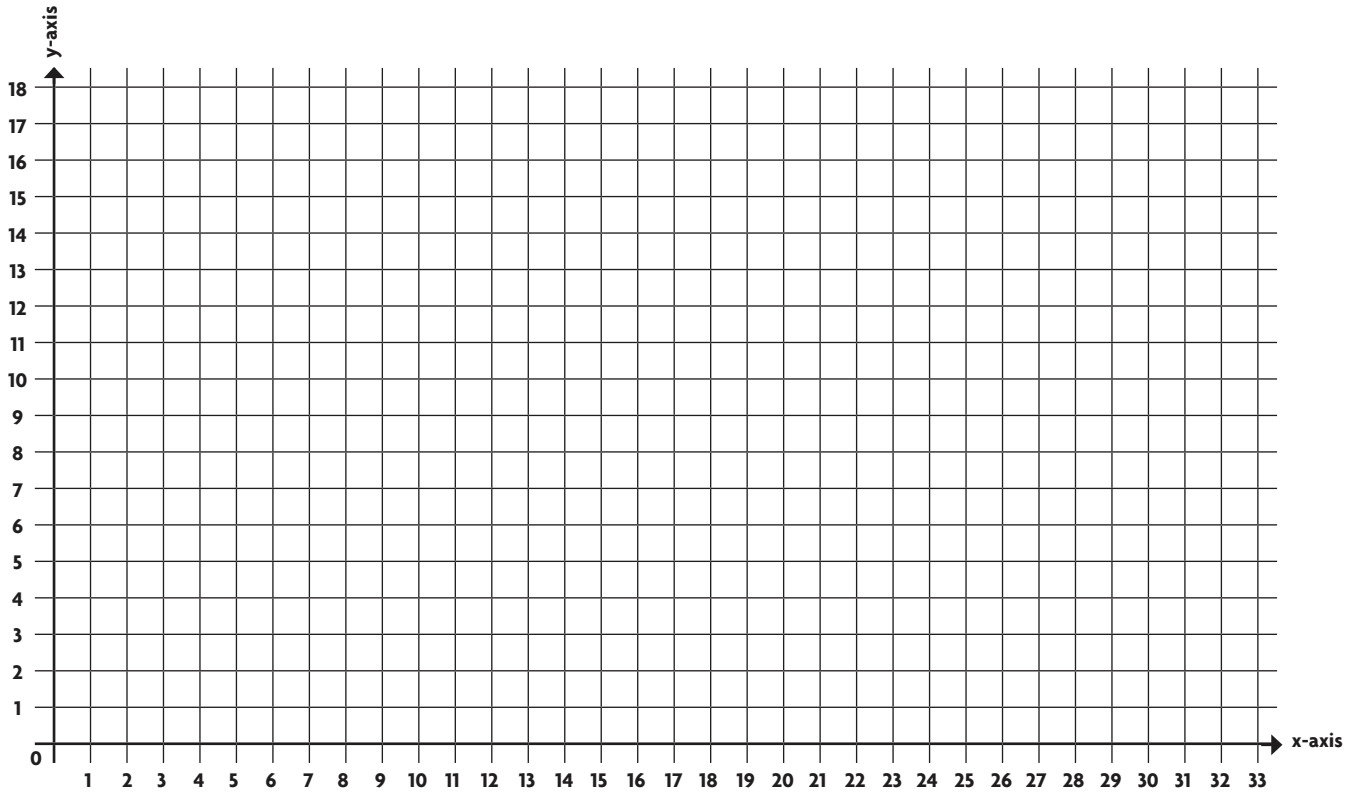
Goals for Friday

Journal: What things make you happy? Describe a full day of happy things.

Picture This!

Mark off the following points. As you mark each point, draw a line to connect it to the previous point. When you're done, the connected dots will make a picture. What is it?

a. **(4, 4)**
b. **(7, 3)**
c. **(16, 2)**
d. **(25, 3)**
e. **(29, 5)**
f. **(32, 2)**
g. **(31, 6)**
h. **(33, 12)**
i. **(29, 8)**
j. **(25, 10)**
k. **(19, 12)**
l. **(18, 18)**
m. **(11, 12)**
n. **(4, 10)**
o. **(0, 8)**
p. **(3, 5)**
q. **(6, 5)**
r. **(4, 4)**



Delicious Directions

Read the directions below.

Easy-Bake Caramel Corn

Ingredients

2 sticks of butter or margarine
2 cups firmly packed light brown sugar
½ cup light corn syrup
1 teaspoon salt
½ teaspoon baking soda
1 teaspoon vanilla
6 quarts popped corn

DIRECTIONS: Melt the butter or margarine over low heat in a saucepan. Stir in brown sugar, corn syrup, and salt. Bring to a boil, stirring constantly. Then, boil without stirring for 5 minutes. Remove from the heat, and stir in baking soda and vanilla. Gradually pour over popped corn and mix well. Turn into two large shallow baking pans. Spread corn out evenly. Bake in a preheated 225°F oven for 30 minutes. Make sure to stir and turn every 10 minutes with a large metal spatula. Remove from oven and immediately dump onto waxed paper. Cool and break into chunks. Store in a tightly covered container.

Read the questions carefully. Circle the best answer.

1. **How many ingredients do you need to prepare Easy-Bake Caramel Corn?**
   A. 5 B. 6 C. 7 D. 8

2. **When making Easy-Bake Caramel Corn, the first step is to—**
   A. stir in the brown sugar
   B. melt butter or margarine
   C. spread corn out evenly
   D. boil water

3. **Once all the ingredients are added, bake in a preheated oven for—**
   A. 5 minutes
   B. 10 minutes
   C. 20 minutes
   D. 30 minutes

4. **After the ingredients are baking, you should turn the Easy-Bake Caramel Corn every—**
   A. 5 minutes
   B. 10 minutes
   C. 20 minutes
   D. 30 minutes

5. **What are the last two ingredients added to the saucepan?**
   A. baking soda and butter
   B. brown sugar and salt
   C. baking soda and vanilla
   D. none of these

Spotting Gerunds

Every **gerund**, *without exception, ends in* **-ing**. *Gerunds are not, however, all that easy to identify. The problem is that some forms of verbs also end in* **-ing**. *But gerunds function as* **nouns**. *Therefore, gerunds can be* **subjects**, **subject complements (predicate nominatives)**, **direct objects**, **indirect objects**, *and* **objects of prepositions**.

Examples: Hiking is difficult on these steep hills. (subject)
My favorite pastime is drawing floor plans. (predicate nominative or subject complement)
Corey loves eating potato chips. (direct object)
The girls complained of hearing strange sounds from the woods. (object of a preposition)

*Note: Gerunds can be followed or preceded by possessive pronouns (***my**, **his**, **her**, **our**, **their**, **its***), or other possessives.*
Examples: My cooking is famous in New Orleans. Greg's driving scares me.

In each sentence, underline every **gerund phrase**. Circle each **gerund**. The first one is done for you.

1. **Watching an airplane take off is very exciting.**
2. **Studying art also taught Alicia about history.**
3. **Her main goal is improving her brush strokes.**
4. **The criminals denied stealing anything.**
5. **Brushing your teeth twice daily is what all dentists recommend.**

Underline each gerund or gerund phrase in the sentences below. On the blank, write how the gerund is used. Use **S** for subject, **PN** for predicate nominative (subject complement), **DO** for direct object, or **OP** for object of preposition.

_____ 6. **Having studied Spanish helped us on our trip to Lima, Peru.**

_____ 7. **Cesar preferred watching the soccer games in Lima.**

_____ 8. **Mark's goal this year is selling at least four more houses.**

_____ 9. **He should be happy with selling two more houses.**

_____ 10. **Collecting clothes for charity gives my sister great satisfaction.**

To Infinitive and Beyond!

An **infinitive** *is a verb form that usually begins with the word* **to** *and acts as a noun, an adjective, or an adverb.*

Examples: To study a lot will increase your chances of making better grades. (as a noun)
Her plan to study hard was appreciated by her father. (as an adjective)
To study effectively, Gracie will learn good habits. (as an adverb)

To determine if a phrase is an **infinitive** *or a prepositional phrase, look at the word after* to. *If the word is a verb, the phrase is an infinitive. If the word is a noun, pronoun, or modifier, the phrase is a prepositional phrase.*

Examples: Michael is going to the grocery store. (prepositional phrase)
Does Angela want to go with him? (infinitive phrase)

In each sentence below, underline the infinitive.

1. **To sleep is the only thing Jerrold wants after work.**
2. **Wherever Samantha goes, she always brings a book to read.**
3. **We want to visit all of the historic sites in Barcelona.**
4. **Mrs. Green's children like to go to the park zoo.**
5. **Mrs. Burns stopped the car to check the tires.**
6. **To hit a home run is the dream of every baseball player.**

Use each of the following infinitive phrases in a sentence.

7. **to read** _____
8. **to arrive on time** _____
9. **to thank everyone** _____
10. **to make dinner** _____
11. **to chew his food slowly** _____
12. **to think about the problem** _____

Word Problems With Integers

Solve each problem. Show your work and draw a box around your answer.

1. **A scuba diver is 72 feet below sea level. As the diver rises, he stops every 15 feet. What integer tells his depth at the first pause?**

_____

2. **The temperature in Atlanta on the coldest night of the year was 9° F at 10:00 PM and had dropped to –2° F by 7:00 AM. How many degrees did the temperature drop?**

_____

3. **Tonya invested in a stock that she had researched. In the first 5 business days she owned the stock, it dropped 10 points (–10). What was the average loss per day?**

_____

4. **John's scores for a weekend where he played 4 rounds of golf were +3, –2, +3, and –2. If par is represented as a score of 0, how far above or below 0 is his 4-round score?**

_____

5. **In the Sutton Middle School Academic Bowl, Lila scored 100 points on the first question. On the next question she lost 200 points. What was her final score?**

_____

6. **During last week's football game, Freddy ran with the ball six times. On three of the runs, he gained 5 yards each. However, he lost 4 yards on each of the other three runs. Overall, did Freddy gain or lose yards? How many?**

_____

Week 6 • Day 3

Narrative Writing

An Embarrassing Situation

We all have faced an embarrassing situation at one time or another. In this essay, tell about a time when you were completely embarrassed. What do you recall had taken place that made you feel this way? Tell what you did to deal with the situation. Finally, do you think that you handled the situation in the best way? Why or why not?

The Marathon

The marathon was not an event in ancient Olympic Games. In fact, it was not until the first modern, international Olympic Games, which were held in Athens, Greece, in 1896 that the event would be run. This "marathon" would serve to honor the Greek hero Pheidippides by re-creating his 25-mile run from Marathon to Athens.

Twenty-five young men started running toward Athens on the morning of April 10, 1896. 10,000 excited spectators waited for them in the Parthenon Stadium in Athens. Many thousands of Greek citizens lined the road from Marathon to Athens encouraging the runners and honoring their ancient hero. A young shepherd from Marathon, Spiridon Loues, won the race. The marathon run is now an established event in every Olympic Games.

The original 25 miles from Marathon to Athens was changed to 26 miles 385 yards for the 1908 run and remains the same today. Other marathon races are held throughout the world. The most famous marathon in the United States is the Boston Marathon. It follows a route from its start at Hopkinton to the finish at Pru, a total of 26.2 miles.

The marathon is a long endurance race; in fact, it is at least twice as long in distance and time as other popular races. As you can imagine, the race is both physically and psychologically demanding.

This map shows the route of the Boston Marathon. The annual Boston Marathon was established in 1897.

Use the passage and the map on page 77 to answer the following questions.

1. **In the Boston Marathon, Heartbreak Hill is located between what kilometers?**

2. **The winner of the Olympic Marathon of 1896 was** _____

3. **Where does the Boston Marathon begin and where does it end?** _____

4. **Why was the marathon introduced in the 1896 Olympics?** _____

5. **When was the Boston Marathon established?** _____

6. **How long is the modern-day Olympic Marathon?** _____

7. **How long is the Boston Marathon?** _____

8. **Why is a marathon such a demanding event for athletes?** _____

Please Excuse My Dear Aunt Sally

The mnemonic, Please Excuse My Dear Aunt Sally, is a helpful way to remember the order of operations in math problems.

Here's how it works:

Please is for parentheses.
Excuse is for exponents.
My Dear is for multiplication or division.
Aunt Sally is for addition or subtraction.

First, calculate inside the parentheses.
Second, find the value of terms with exponents.
Third, multiply or divide.
Last, add or subtract.

Example: $3^2 \times (4 + 3) + 6 \div 3$

1) Work inside parentheses first.
2) Next, simplify any terms with exponents.
3) Multiply and divide from left to right.
4) Add and subtract from left to right.

Example:
$3^2 \times (4 + 3) + 6 \div 3$
$3^2 \times 7 + 6 \div 3$
$9 \times 7 + 6 \div 3$
$63 + 2$
65

Solve the folllowing problems.

1. **$4 (15 + 18) - 112$** _____
2. **$6^2 + 24 - 7 \times 3$** _____
3. **$(7 \times 8) - (4 \times 9)$** _____
4. **$7 + 9 \div 3$** _____
5. **$15 \div 3 + 16 \div 4$** _____
6. **$2 + (3 + 4) + 2^3$** _____
7. **$8^2 \div 4 - 2 \times 8$** _____
8. **$(12 - 3^2) \times 4 + 2$** _____
9. **$24 \div (2 \times 6) + 6$** _____
10. **$3 \times 4^2 \div (12 - 4)$** _____
11. **$5 - 9 \div 3$** _____
12. **$28 \div (4 + 3) \times 9$** _____
13. **$84 \div (8 + 6) \div 3$** _____
14. **$3 \times (5 \times 4)$** _____
15. **$55 \times 1 + 10 - 5$** _____
16. **$(40 \div 8) \times 3$** _____
17. **$25 \div 5 + 12 \div 4$** _____
18. **$3^4 + (2^2 + 1) - 31$** _____

Vocabulary Building

Read the following words and definitions.

Plethora: a large amount of something
Dearth: a shortage of something
Pittance: a very small amount of something, especially money
Copious: produced or existing in large quantities
Profuse: being or appearing in large amounts
Meager: insufficient

Now use your expanded vocabulary! Some new stores are opening up in town, and they need help deciding on names. Read each description below. Then circle the name that you think best fits the store.

1. **A toy store with low, low prices**

   Toys for a Pittance **A Dearth of Toys**

2. **A music store that sells instruments and gives music lessons**

   A Pittance of Sound **Copious Notes**

3. **A health food store that specializes in fruit and vegetable juices**

   Juice Dearth **Profuse Juices**

4. **A cleaning company that guarantees homes will be dirt-free**

   A Dearth of Dirt **Copious Dirt**

5. **A book store with three floors of books**

   A Plethora of Pages **Meager Books**

Helping Your Middle Schooler Get Ready: Week 7

These are the skills your middle schooler will be working on this week.

Math
- variables
- ratio and proportions
- percents

Reading
- sequencing
- reading for information
- point of view

Writing
- creating an outline
- writing a story

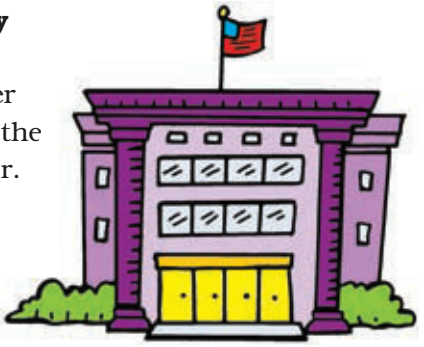
Vocabulary
- word choice

Grammar
- types of sentences

Here are some activities you and your middle schooler might enjoy.

Is That a Fact? Give your middle schooler practice distinguishing fact from opinion. Remind him or her that a fact is something that can be proved to be true. An opinion explains what a person believes, feels, or thinks about something. Next, invite your child to join you in watching the evening news. Most of the information you hear will be facts, but not all of it. Each of you should have a pen and sheet of paper ready to record at least four facts and four opinions you hear. Compare and discuss your results. Ask your child to tell you any special words he or she noticed that indicated a statement was an opinion.

Check Out Your Local Library



On your next visit to your local library, ask your middle schooler to check out the programs that the library offers during the summer. The programs do not have to be about reading a book. Perhaps the library has invited local authors, film critics, or local artists to give talks that might be of interest to you and your teenager. So check out the bulletin board to see if there are any interesting programs offered that both of you would like.

Your middle schooler might enjoy reading the following books:

Alexander the Great Rocks the World
by Vicky Alvear Schecter

Owly: The Way Home & the Bittersweet Summer
by Andy Runton

A Yellow Watermelon
by Ted Dunagan

My Week at a Glance

Use this page to set goals and make journal entries.

Goals for Monday

Journal: How would life be different if everyone left school at age 12?

Goals for Tuesday

Goals for Wednesday

Journal: What do you think your life will be like in ten years?

Goals for Thursday

Goals for Friday

Journal: You have been chosen to go on an international expedition with a famous explorer. Who is it, and where will you go?

Step by Step

Whenever you write about something that has happened or how to do or to make something, it is important to write about the events or the steps in the correct order.

Carefully read the notes about the day the Mason family went on vacation. Number the events in the order that they happened.

_____ **back on road by 1:00**

_____ **stopped for lunch around noon**

_____ **helped Dad load up the van**

_____ **unloaded van and went down to the beach**

_____ **up at 6:00 A.M., got dressed, ate breakfast**

_____ **double-checked house before locking up**

_____ **stopped for gas on way out of town**

_____ **arrived at the motel by late afternoon**

_____ **got on the turnpike and headed east**

_____ **piled in the van and ready to go by 7:30**

Pretend that the notes above are yours. Use them to write a paragraph. Include a topic sentence, closing sentence, and title. Write about the events in sequence. Remember to indent the first line and to begin and end each sentence correctly. You may want to include words such as *before that, after, first, next, then, later,* and *finally* to help indicate the order in which you did things. You can also use another sheet of paper to create a longer story.

Expressions With Variables

Algebraic expressions, like arithmetic expressions, contain numbers and operation symbols, but they also contain variables. These variables are usually represented by letters.

Solve to find the value of the variable in the expressions below. Remember to use the rules for the order of operations (see page 79) when necessary.

1. **Y + 15 = 20** _____
2. **20 – X = 6** _____
3. **N – 13 = 8** _____
4. **45 + W = 62** _____
5. **5m = 30** _____
6. **3 x A = 27** _____
7. **N x 6 = 48** _____
8. **X ÷ 2 = 8** _____
9. **B ÷ 3 = 21** _____
10. **N ÷ 4 = 12** _____
11. **25 = 12 + C** _____
12. **7 = 24 – Y** _____
13. **24 ÷ X = 8** _____
14. **C ÷ 7 = 6** _____
15. **6 x A = 66** _____
16. **27 = 3 x Y** _____
17. **15 = X + 7** _____
18. **8 = C ÷ 9** _____
19. **(2 + 4) x Y = 36** _____
20. **9 + N = 15** _____
21. **20 = 80 ÷ N** _____
22. **N x 13 = 78** _____
23. **42 = N x 7** _____
24. **16 – X = 4** _____
25. **81 ÷ N = 9** _____
26. **N x 1 = 39** _____
27. **8 ÷ X = 2** _____
28. **81 ÷ N = 27** _____
29. **Y ÷ 8 = 6** _____
30. **9 + X = 20** _____

Learning About Orcas

Orcas, also known as "killer whales," live their whole lives in the same family group called a pod. A mother can give birth to a calf every two years. The mother nurses and protects the young calf. Each member of the pod is committed to protecting the group.

Orcas have no vocal chords but make sounds through their blowholes. The blowhole is located in the center of the forehead, which allows the animal to whistle. Pod members are in constant communication, and since each whale's "whistle" is unique, the pod can tell who is "calling." The whistle is also used as a distress signal. Orcas also make clicks and "click trains" when talking.

When an orca sends out a signal, the pod listens in silence. When the first "speaker" has completed his or her "talking," another pod member will respond. Only the pod leader can "talk over" the signal of another pod member.

It is not unusual for these animals to reach a length of 40 feet and a weight in excess of 15,000 pounds. Being so large, they can be easy to spot. A tuna fisherman in the Southeast Pacific reported witnessing a pod of 15 orcas surrounding and circling a school of dolphins. The orcas swam in ever-tightening circles around the dolphins. Suddenly, one orca left the circle and swam straight through the dolphin school, biting and chewing on anything it hit. Within minutes each orca followed the same tactic. After striking, each orca would return to the circle thereby keeping the dolphins trapped.

Orcas rarely hurt humans unless provoked. For this reason, marine parks the world over feature them. The orcas are fast learners in captivity. A newly captured orca is placed with already trained animals and soon learns all of the tricks. Trainers must keep ahead of them because the animals quickly become bored with the same tricks and begin to invent new tricks on their own.

Read each question. Then circle the letter of the best answer.

1. **An orca calf, at birth—**
   A. stays with the pod only until it is grown.
   B. lives by feeding on whatever it can catch.
   C. is nursed by its mother.
   D. leaves its mother and swims with the pod.

2. **In the example from the story, when the orcas hunted the dolphins, they—**
   A. kept circling until the dolphins tired.
   B. hunted in a group.
   C. ate their prey once they drew blood.
   D. hunted on their own.

3. **Scientists who study orcas' communication have discovered that—**
   A. orcas are silent most of the time.
   B. pods have strict rules for "talking."
   C. they love "talking" so much they often talk over each other.
   D. their single method of "talking" is to make a whistling through their blowholes.

4. **Orcas in captivity—**
   A. learn very slowly.
   B. create all of their own tricks.
   C. are easily amused.
   D. quickly learn routines and tricks.

Outline It First

Now that you have read about killer whales, it is your turn to research additional information about them. You can use the Internet, books, magazines, newspapers, and any other available materials. After you have taken notes, decide what and how you will write about killer whales. Use the following template to guide you in creating the outline for your research paper. The outline is only a guide. You may find it necessary to change some of the lettering and numbering.

_____

Title

I. _____

A. _____

B. _____

1. _____

2. _____

C. _____

1. _____

2. _____

II. _____

A. _____

1. _____

2. _____

B. _____

C. _____

III. _____

A. _____

B. _____

C. _____

Ratios & Proportions

Ratios, which are often expressed as fractions, describe relationships between two quantities. When two ratios are equal, they can be written as a proportion.

Key Concepts:

Ratio—*a comparison of two quantities by division, which can be written three different ways:*

3 : 4 *8 to 12* $\frac{4}{4}$

Proportion—*a statement that two ratios are equal*

$\frac{2}{3} = \frac{4}{6}$ $\frac{10}{100} = \frac{1}{10}$

Each part of a ratio is called a **term**. *A* **ratio** *compares two quantities by division. A* **proportion** *is an equation stating that two ratios are* **equal**. *The ratios must compare quantities in the same way. One way to tell if ratios form a proportion is to use cross products. In a proportion, the products of the first term of one ratio and the second term of the other ratio will be equal when cross multiplied:*

$\frac{3}{5}, \frac{15}{25}$ **3 x 25 = 75** **15 x 5 = 75**

Solve each of the following:

1. $\frac{5}{15} = \frac{x}{30}$
2. $\frac{n}{40} = \frac{5}{8}$
3. $\frac{1}{3} = \frac{2}{x}$
4. $\frac{11}{x} = \frac{1}{3}$
5. $\frac{10}{14} = \frac{N}{7}$
6. $\frac{50}{75} = \frac{N}{150}$

Circle the ratios that form proportions.

7. $\frac{3}{25}, \frac{6}{50}$
8. $\frac{4}{24}, \frac{7}{42}$
9. $\frac{1}{4}, \frac{2}{4}$
10. $\frac{3}{8}, \frac{1}{4}$
11. $\frac{6}{3}, \frac{8}{4}$
12. $\frac{4}{100}, \frac{40}{40}$

Which Word?

Read the following sentences. Circle the letter of the word that **best** completes the sentence.

1. **The old dump truck was used to _____ the dirt from the landfill to the new houses.**

   A. browse B. confront C. transport D. impede

2. **Natalie was an international traveler who was considered to be a _____ woman.**

   A. cosmopolitan B. subtle C. gruesome D. legitimate

3. **The foreign army tried to _____ the citizens of the country in order to gain control.**

   A. inflate B. bestow C. cater D. oppress

4. **Kevin's horse was very _____, galloping around the racetrack with delight.**

   A. infuriated B. spirited C. perturbed D. uncertain

5. **Jan encountered a _____ environment when she tried to change the club's policies.**

   A. hostile B. status C. casual D. permanent

6. **In an effort to _____ plenty of food for winter, the squirrel gathered food all day.**

   A. resume B. tamper C. procure D. overwhelm

7. **Mrs. McCoy told Jerold if he wanted to act like a _____ he should join a circus.**

   A. legacy B. buffoon C. mellow D. flagrant

8. **We all thought Carla was trying to _____ everyone with her irrational behavior.**

   A. persist B. ponder C. bewilder D. wayward

9. **The administration took a _____ stand on the dress code at the local schools by not allowing blue jeans.**

   A. controversial B. status C. pending D. preview

10. **Some online games let you create a _____ world that you can base on your life.**

    A. oration B. species C. lethal D. virtual

Identifying Sentence Types

A **simple sentence** *has one independent clause (a subject, a predicate, and a complete thought) and no dependent clauses. A simple sentence may have compound parts (i.e., subjects and predicates).*

A **compound sentence** *has two or more independent clauses joined together, but no dependent clauses. The clauses may be joined by a comma and a coordinating conjunction or by a semicolon. Examples of coordinating conjunctions are* **and**, **but**, **or**, **nor**, *or* **for**.

A **complex sentence** *has one independent clause and one or more dependent clauses. Many dependent clauses are introduced by a subordinating conjunction. Examples of subordinating conjunctions are* **after, although, as, as soon as, because, before, even though, if, since, than, though, unless, until, when, whenever, wherever, which, while**.

After studying the definitions of the types of sentences, identify each sentence below with **S** for simple, **CD** for compound, and **CX** for complex.

_____ 1. **William Shakespeare wrote many plays for Queen Elizabeth I.**

_____ 2. **Shakespeare took old stories from other countries, and he wrote plays from them.**

_____ 3. **People watched the plays at Elizabeth's castle, or they saw them in the public theaters.**

_____ 4. **Because only wealthy people could buy theater seats, the common people had to stand.**

_____ 5. **Even though there were parts for women in the plays, women were not allowed to act.**

_____ 6. **In the 1500s, boys or men played the parts of women in plays.**

_____ 7. **Queen Elizabeth enjoyed theater and was skillful with money, and many theaters were built under her rule.**

_____ 8. **Many people today still enjoy Shakespeare's plays.**

How Much?

Fractions, **decimals**, *and* **percents** *are related and can be changed to any of the other forms.*

Examples:

$38\% = \frac{38}{100} = 0.38$ $30\% = \frac{30}{100} = 0.30 \text{ or } 0.3$ $.45 = \frac{45}{100} = 45\%$ $0.09 = \frac{9}{100} = 9\%$

Solve the following problems.

1. **Mary Jane has a 25% off coupon to Super Sport Emporium. She purchased a new soccer ball, cleats, and a team jersey. The total, before taxes, was $250. How much is her total after the 25% discount? After the discount is applied, the register computes 3% sales tax. What is her final bill?**

   Total after the 25% discount = $_____. Sales tax of 3% = _____. Final bill = $_____.

2. **Kendra took out a one-year loan of $2,000 to purchase a car. The interest on the loan was 5%. How much interest will she pay?**

   Total interest = $ _____. Total amount paid back on the loan = $_____.

3. **Antonio and three of his friends are holding a car wash to raise money for their basketball team. They are charging $5 per car. Their supplies cost $20. If they wash 25 cars, what percentage of their earnings was spent on supplies?**

4. **Crystal is saving to buy school supplies. She wants a backpack that costs $45.00, 2 notebooks that cost $2.50 each, and colored pens that cost $10.00. Her father told her he would contribute $20 toward the total purchase. What is the total cost of Crystal's supplies? What percentage of the total cost is her father contributing?**

5. **Audrey is hoping to buy a new bike. The bike shop owner told her he would give her a 15% discount on a new bike if she trades in her old bike. The new bike costs $125.00. How much would it cost if she gets the trade-in discount?**

The Narrator

Every story, or narrative, has a narrator. When a story has a **first-person point of view**, *the narrator is a story character who uses the pronouns* I, me, *and* myself *to tell what he or she thinks, feels, and does. Readers see the story through the eyes of this character only.*

I tried to calm myself after looking down and seeing a scorpion crawling up my leg. I was terrified. "Matt," I croaked, barely able to speak, "please help me!" Matt turned around and raced to my side.

When a story has a **third-person point of view**, *the narrator is not a character but someone outside the story. The narrator reveals the actions and words of all the characters but tells the thoughts and feelings of only one main character.*

She tried to calm herself after looking down and seeing a scorpion crawling up her leg. She was terrified. "Matt," she croaked, barely able to speak, "please help me!" Matt turned around and raced to her side.

Rewrite the following passage from a first-person point of view.

Spotting the doe in a clearing, he froze in his tracks and quietly took out his camera. He didn't want to startle the animal before getting at least one shot. Sensing his presence, the doe looked up at him. "Don't be frightened," he said in his most soothing voice. "I won't hurt you. I just want to take your picture." The doe accommodated him for about five seconds before running off into the woods.

Rewrite the following passage from a third-person point of view.

After hiking for more than an hour up the steep trail, I decided to take a break because my feet were killing me. Although I had worn my new hiking boots around the house all week, I soon realized that they were not sufficiently broken in. "I should have listened to Beth and worn my old boots," I grumbled to myself.

"Did you say something, Jenny?" Beth asked.

Look at the scenario below. Write a short story using the first-person point of view—either the camper's or the skunk's. A topic sentence is provided to help you get started.

It was an absolutely perfect summer evening at the Pine Grove Campgrounds until my unexpected encounter _____

Now, rewrite the story using the third-person point of view.

It was an absolutely perfect summer evening at the Pine Grove Campgrounds until the unexpected encounter _____

Helping Your Middle Schooler Get Ready: Week 8

These are the skills your middle schooler will be working on this week.

Math
- estimation
- coordinate points
- solving word problems

Reading
- reading for details

Writing
- writing poetry

Vocabulary
- synonyms and antonyms
- prefixes and suffixes

Grammar
- appositives

Here are some activities you and your middle schooler might enjoy.

Finding Your Roots Help your child make a chart showing at least four generations of your family. Your child is the first generation. You are the second generation. Your parents on both sides are the third generation. Your grandparents on both sides are the fourth generation. Then encourage your middle schooler to learn about your family's heritage and culture.

Spud Prints Help your child make a potato print. Gather a paring knife, carving tools, tempera paints, and a potato to create a stamp. Cut the potato in half—crosswise. Have your child draw the pattern on the exposed flesh. A good first attempt might be initials, perhaps using a stencil or letter pattern instead of drawing freehand. While you supervise, have your child use the paring knife to cut away excess potato around the drawing. He or she may need to use other tools to scrape away hard to reach areas. When the design pops out from the background, it is ready for a test print. Pour a small amount of paint onto a flat saucer. Have your child dip the potato into the paint and test it on a sheet of paper. He or she can use the stamp to decorate stationery, book covers, folders, and binders for back-to-school.

Your middle schooler might enjoy reading the following books:

I Am Rembrandt's Daughter
by Lynn Cullen

The Maze Runner
by James Dashner

Eldest
by Christopher Paolini

My Week at a Glance

Use this page to set goals and make journal entries.

Goals for Monday _____

_____

Journal: Describe the advantages and disadvantages of a flying car.

_____

_____

_____

_____

Goals for Tuesday _____

_____

Goals for Wednesday _____

_____

Journal: What do you think the computers of the future will be like?

_____

_____

_____

_____

Goals for Thursday _____

_____

Goals for Friday _____

_____

Journal: If you could choose to be an animal, which would you choose to be? Why?

_____

_____

_____

_____

Estimation . . . an Approximation!

Estimation *is a valuable skill that you will frequently use in daily life.*

Example: Janet has $10 to spend for lunch. She would like to order a drink, a hamburger, and fries. The menu lists drinks as $1.59, a hamburger for $5.95, fries in two sizes, small for $1.29 and large for $1.99. Can she afford the large fries? She estimates the cost of lunch as follows:

$5.95 ▶ $ 6.00
$1.99 ▶ $ 2.00
$1.59 ▶ $ 2.00
$10.00

Estimate answers as directed for each of the following problems.

1. **Central Middle School has two cafeterias. The eighth grade has four teams: Team A has 127 students, Team B, 135 students, Team C, 131 and Team D, 137 students. Which pairs of teams should eat together to most evenly distribute the students?**

_____

2. **Estimate the following:**

   432 ÷ 9 = 62 x 7 = 536 + 814 = 1,976 – 922 =

3. **Tickets to the seventh-grade school dance are $7.50. Homeroom B has 28 students. If everyone purchases a ticket, about how much will Homeroom B collect?**

_____

4. **The class trip to the beach will cost $19 for transportation, $27.95 for admission, $13.95 for food, and $7.95 for unlimited soft drinks for the day. What should each student estimate as the cost for the trip?**

_____

5. **Peter and Paul are planning an all-day bike ride. They plan to leave by 9:00 AM and must return home by 5:00 PM. The distance from home to the lake is 11 miles. The distance to the picnic area on the far side of the lake is 3.5 miles. Traveling at a speed of 16 miles per hour, at approximately what time will they arrive at the picnic area? At what time will they need to leave to arrive home by 5:00 PM?**

_____

Synonyms and Antonyms

Synonyms *are words that have* **similar** *meanings.*
Antonyms *are words that have* **opposite** *or nearly opposite meanings.*

Read each sentence. Then circle the letter of the best synonym for each italicized word.

1. **Maria enjoyed the *placid* atmosphere of the cabin.**
   A. plastic B. quiet C. stressed D. noisy

2. **David *pleaded* for a new skateboard.**
   A. argued B. asked C. pulled D. begged

3. **Andy was so *lethargic,* he could barely keep his eyes open.**
   A. excited B. anxious C. tired D. enthusiastic

4. **The *din* of the cuckoo clock woke us up.**
   A. quiet B. noise C. charm D. smell

5. **The famous author received a *plethora* of fan letters.**
   A. abundance B. packet C. shortage D. lack

6. **Police officers swear to *protect* citizens.**
   A. arrest B. defend C. direct D. ignore

Write an antonym for each word.

1. **dull** _____
2. **narrow** _____
3. **always** _____
4. **flexible** _____
5. **wrong** _____
6. **damp** _____
7. **tired** _____
8. **criticize** _____

What's for Lunch?

Have you ever heard of a fish called a caribe? These blood-thirsty fish are more commonly known as piranhas. These South American natives live in the mighty Amazon River. Piranhas range in size from as small as four inches to as large as 18 inches in length. Animal and human life along the Amazon are terrorized by vicious schools of piranhas. A single school may include more than a thousand fish. Scientists believe that for their size, piranhas are more dangerous than sharks. With their razor-sharp teeth, they can strip the flesh from the carcass of any animal down to its skeleton in a matter of minutes. Approximately 20 different varieties of piranhas have been identified. Gold or red spots on bluish-gray, green, or yellow bodies are the most common varieties of the caribe.

Read each statement below. If it is true, write **T**. If it is false, write **F**.

1. **All piranhas are green.** _____
2. **Piranhas are native to North America.** _____
3. **They terrorize animal life.** _____
4. **Schools can number in the thousands.** _____
5. **Piranhas have razor-sharp teeth.** _____
6. **Piranhas are not as dangerous as sharks.** _____
7. **Another name for this fish is caribe.** _____
8. **There are roughly 20 varieties of piranhas.** _____
9. **The piranha is an endangered fish.** _____
10. **Piranhas have spots.** _____

Research online or at your local library to find out more about piranhas and answer the following questions.

1. **Where do the greatest concentration of caribe occur?**

_____

2. **From your research, does everyone die from the piranhas' attacks?**

_____

African Arithmetic

Solve the following word problems. Show your work.

1. **The Nile River is 4,160 miles long, making it the longest river in the world. The Congo River is 2,720 miles long, and the Niger is 2,600 miles long. What is the combined length of these three great African rivers?**	5. **The largest lake in Africa, Lake Victoria, covers 26,828 square miles. Lake Superior, in North America, covers 31,820 square miles. How much larger is Lake Superior than Lake Victoria?**
2. **Mount Kilimanjaro is Africa's tallest mountain with an elevation of 19,340 feet above sea level. The lowest place in Africa is Quattara Depression, which is 436 feet below sea level. How much higher is Mount Kilimanjaro than Quattara Depression?**	6. **The Sahara in North Africa is the largest desert in the world. It covers 3,000,000 square miles. What percent of Africa is covered by the Sahara?**
3. **Deserts cover two-fifths of Africa. Of Africa's 11,677,000 square miles, how many are desert?**	7. **Some tropical parts of Africa get 150 inches of rainfall per year. If it rained the same amount each day, what would be the approximate daily rainfall? (to the nearest tenth)**
4. **Forests and mountains cover one-fifth of Africa. How many square miles of Africa is covered by forests and mountains?**	8. **One year Africa exported 144,000 pounds of ostrich feathers and 108,000 pounds of gold. How many more pounds of ostrich feathers than pounds of gold were exported?**

Graphing Coordinate Points

Use the graph on the next page. Follow the directions to complete this puzzle.

Begin with
(–8, –5)
(–4, –5)
(–4, –2)
(–3, –1)
(4, –1)
(5, –2)
(5, –5)
(9, –5)
(9, –1)
(10, 1)
(10, 7)
(11, 8)
(11, 9)
(9, 11)
(8, 11)
(7, 10)
(4, 13)
(–3, 13)
(–6, 10)
(–7, 11)
(–8, 11)
(–10, 9)
(–10, 8)
(–9, 7)
(–9, 1)
(–8, –1)
(–8, –5)

Lift pencil and start again with
(–9, 7)
(–8, 7)
(–6, 5)
(–6, 3)
(–4, 1)
(5, 1)
(7, 3)
(7, 5)
(9, 7)
(10, 7)

Lift pencil and start again with
(–6, 10)
(–5, 9)
(–3, 11)
(4, 11)
(6, 9)
(7, 10)

Lift pencil and start again with
(–7, 8)
(–8, 8)
(–9, 9)
(–8, 10)
(–7, 10)
(–6, 9)

Lift pencil and start again with
(7, 9)
(8, 10)
(9, 10)
(10, 9)
(9, 8)
(8, 8)

Lift pencil and start again with
(–3, 3)
(–2, 2)
(3, 2)
(4, 3)

Lift pencil and start again with
(–1, 3)
(2, 3)
(3, 4)
(3, 5)
(2, 6)
(–1, 6)
(–2, 5)
(–2, 4)
(–1, 3)

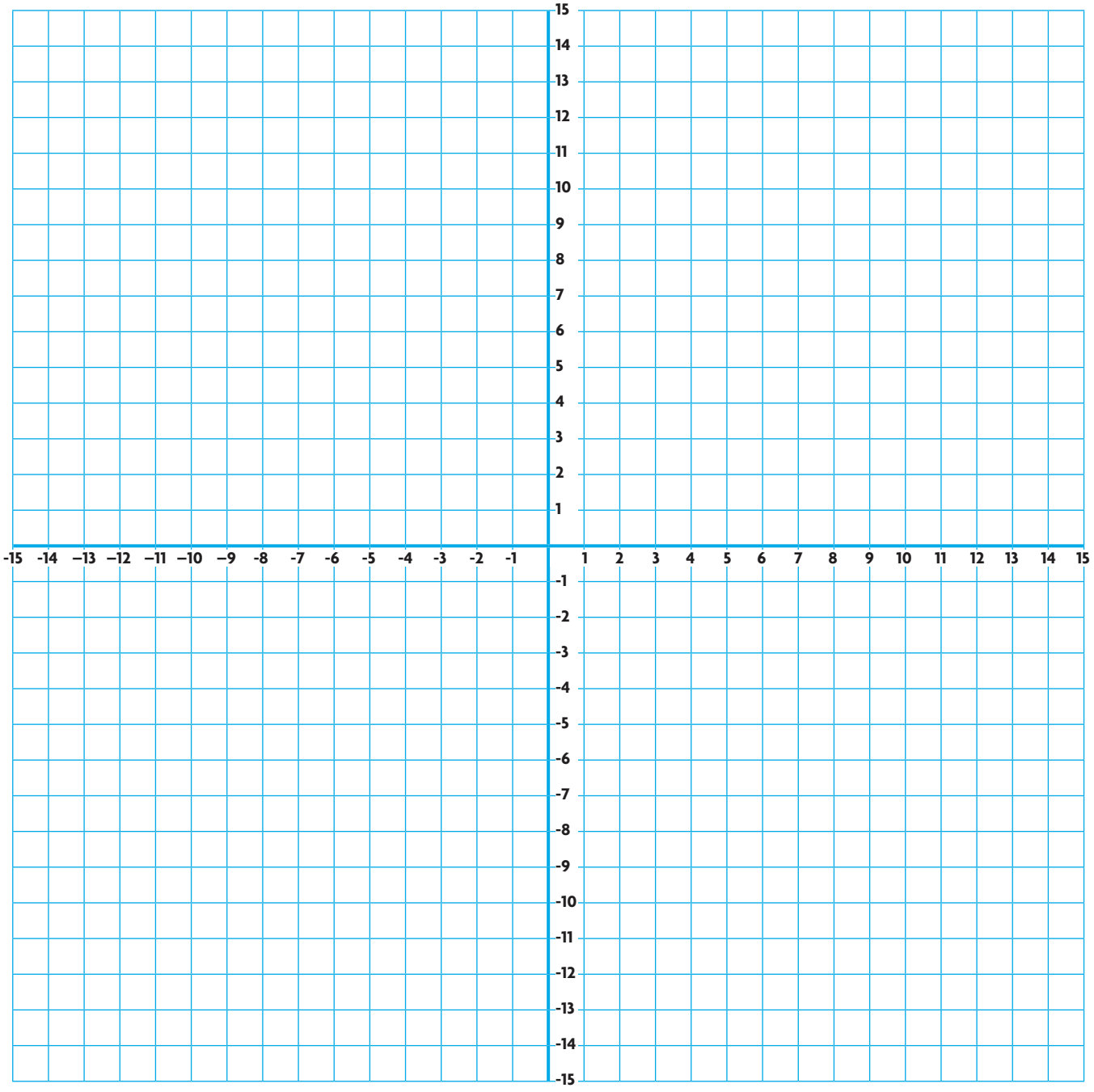
Lift pencil and start again with
(0, 4)
(0, 5)
(–1, 5)
(–1, 4)
(0, 4)

Lift pencil and start again with
(1, 4)
(1, 5)
(2, 5)
(2, 4)
(1, 4)

Lift pencil and start again with
(–3, 8)
(–2, 9)
(–1, 8)

Lift pencil and start again with
(2, 8)
(3, 9)
(4, 8)
Stop

Place a dot at:
(–2, 8) and
(3, 8)
Finish!



Tackling Appositives

An **appositive** *is a noun or pronoun, often with modifiers, placed beside another noun or pronoun to explain or identify it. Appositives are another way of telling who or what the noun or pronoun is. The appositive can either precede or follow the word it modifies. Remember: There are NO verbs in an appositive. An appositive adds information about a person, place, or thing. It is not an adjective.*

Example: Mrs. Peek, my daughters' piano teacher, has moved to Florida.

Underline the appositives in the following sentences. Draw an arrow to the word(s) it modifies.

1. **A beautiful cocker spaniel, Coco was my favorite dog.**
2. **My brother's car, a sporty black convertible, is the first car he's ever had.**
3. **John Kennedy, a popular U.S. president, was known for his eloquent speeches.**
4. **My daughter, an accomplished musician, has two performances this weekend.**
5. **The pilot, Captain Clark, said to fasten our seat belts.**
6. **The chief surgeon, an expert in organ-transplant procedures, took us on a hospital tour.**
7. **An above-average student and talented artist, Roger made his family quite proud.**

Use appositives to combine the sentences below.

8. **Maria won the school district spelling bee. She is an excellent speller.**

_____

9. **Have you ever been to Yellowstone National Park? It is the largest national park in the U.S.**

_____

10. **Lauren bought me a shirt for my birthday. She is a great friend.**

_____

Brain Teasers

See how quickly you can answer each of the challenges below.

Coin Sense

Write which coins you would need so that the number of coins listed adds up to $1. Use only standard coins.

1. **2 coins** _____
2. **3 coins** _____
3. **4 coins** _____
4. **5 coins** _____
5. **6 coins** _____
6. **8 coins** _____
7. **10 coins** _____
8. **13 coins** _____
9. **15 coins** _____
10. **20 coins** _____

Magic Thirteen

Can you make 13 ones equal 13? Of course you can, but now try these.
You may use addition, subtraction, multiplication, division, and fractions.

11. **Five 3s that equal 13.** _____
12. **Thirteen 2s that equal 13.** _____
13. **Thirteen 9s that equal 13.** _____
14. **Thirteen 1s another way.** _____

Heads and Legs

15. **A farmer tells you he has both goats and ducks on his farm. When you ask how many of each, he tells you that there are 9 heads and 24 legs.**

    Therefore, he has _____ ducks and _____ goats.

Poetry Fun

Not all poetry needs to rhyme. In this activity, you will write an autobiographical poem. Use this page to create your poem. Make the poem as reflective of you as possible.

The Me That Lives Inside Me

If you really knew me, you would know.

1st Stanza

I am _____
(name two special characteristics that you have)

I see _____
(a real or imaginary sight that affects you)

I wonder _____
(something you are actually curious about)

I hear _____
(something you either actually hear or hear in your mind)

I want _____
(a tangible or intangible desire)

I am _____
(repeat the second line)

2nd Stanza

I feel _____
(something that you feel is important)

I touch _____
(again something real or imaginary to touch)

I pretend _____
(name something you actually pretend to do or be)

I cry _____
(what makes you sad)

I worry _____
(name what really bothers you or who you bother)

I am _____
(repeat the last line of stanza one)

3rd Stanza

I understand _____
(something you know to be true)

I say _____
(this can be a belief or something you often say)

I dream _____
(an actual dream or a day dream)

I try _____
(you really make an effort to do this)

I hope _____
(something you hope will come true)

I am _____
(repeat the last line of stanza one)

Conquering Prefixes & Suffixes

*A **prefix** added to the beginning of a base word changes the meaning of the word. Some prefixes have only one meaning while others have more than one meaning.*

Prefix	Meaning
dis	*opposite of, lack of, not*
mis	*bad, badly, wrong, wrongly*
pre	*before*
de	*remove from, reduce*

*A **suffix** added to the end of a word can change both its part of speech and meaning. Like prefixes, some suffixes have one meaning, and others have more than one meaning.*

Suffix	Meaning
able	*able to be, suitable, or inclined to*
al	*relating to, like*
ous	*full of*
ist	*one who*
ness	*quality of, state of being*

Add a prefix or suffix from the lists above to each word in parentheses to correctly complete each sentence. Be careful to check the spelling of the new word.

1. **Jim and Ed _____ (trusted) the outdated directions.**
2. **We were chosen to _____ (view) the movie before it opened.**
3. **Juan helped Teresa _____ (frost) the refrigerator.**
4. **The Mexican people have a great deal of _____ (nation) pride.**
5. **All Americans should be _____ (knowledge) about their country's history.**
6. **Tonya was bitten by a _____ (poison) spider.**
7. **My sister is a (guitar) _____ in a rock band.**
8. **The weatherman _____ (spoke) and gave the wrong temperature.**
9. **Her (inventive) _____ will surely make her a great entrepreneur.**

Helping Your Middle Schooler Get Ready: Week 9

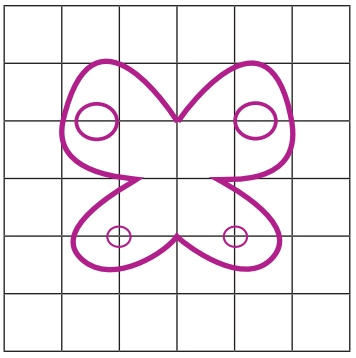
These are the skills your middle schooler will be working on this week.

Math
- tree diagrams
- finding averages
- exponents
- mixed practice

Reading
- using references
- drawing conclusions
- reading for information

Writing
- persuasive writing

Vocabulary
- analogies
- word origins



Here are some activities you and your middle schooler might enjoy.

Indoor Basketball On a day that is too rainy or too hot to go outside, your middle schooler can play basketball indoors. He or she will need a wire coat hanger and several balloons. Have him or her follow these directions: **1)** Bend the loop of the wire hanger into a circle. **2)** Hang it on a door knob, bending the circle straight out from the door. **3)** Blow up several balloons to a size that will fit through the wire "basket." **4)** Have players stand about 4 feet away and shoot some free throws.

Art Explosion Before machines made enlargements and reductions easy, artists used proportional thinking and visual reasoning to make copies in different sizes. Share the following steps with your child so he or she can experiment making his or her favorite designs or pictures larger or smaller. **1)** Give your child two sheets of graph paper: one sheet of 1-inch graph paper and one sheet of graph paper of any other size. **2)** Have your child draw a simple design on the 1-inch graph paper. **3)** Have him or her carefully observe the drawing, one square at a time, and then copy what appears in the square into the analogous square on the graph paper of a different size. Following these steps will allow your child to produce a pair of similar drawings. After he or she gets the hang of this process, suggest moving on to a simple line illustration. If necessary, model how to superimpose a grid onto the drawing to facilitate the copying process.

Your middle schooler might enjoy reading the following books:

Any Which Wall
by Laurel Snyder

Blood Brothers
by S. A. Harazin

The World at Her Fingertips: The Story of Helen Keller
by Joan Dash

My Week at a Glance

Use this page to set goals and make journal entries.

Goals for Monday

Journal: You have just won $10 million in the lottery. How would you spend the money?

Goals for Tuesday

Goals for Wednesday

Journal: Do you think animals have thoughts and feelings? Defend your position in writing.

Goals for Thursday

Goals for Friday

Journal: Would you rather be a shark or a whale? Explain.

Nothing but the Truth?

When writing to persuade, the intent is to convince the reader to believe or do something. A persuasive essay may also be written in defense of an issue. Issues are ideas about which people have strong feelings. Every issue has two sides and the writer's voice will be either **pro** *(for) or* **con** *(against). It is the aim of the writer to convince the reader to support his or her* **claim** *(statement revealing the writer's side of the issue).*

A persuasive essay must contain the following: an introductory paragraph with a strong thesis statement as the final sentence; at least one paragraph with three supporting details and a concluding paragraph with the final sentence restating the thesis statement.

Read the following issues and choose whether you will argue the pro or con side. Write a short essay (at least three paragraphs) that states and supports your claim.

Issue 1: The Message and Power in Hip-Hop Lyrics

Issue 2: The Influence of Violent Video Games on Gamers

Issue 3: The Benefit of Team Sports for Teens

Pro or Con Claim: _____

Thesis Sentence: _____

_____

_____

_____

_____

_____

_____

_____

_____

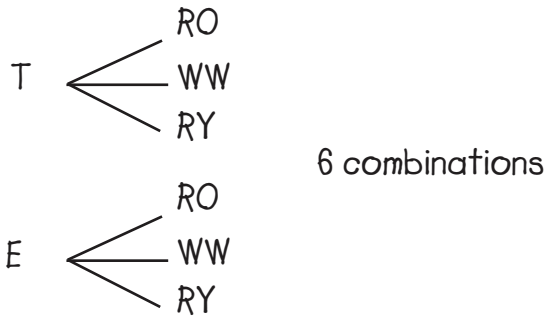
_____

Tree Diagrams

How many combinations can you make? A tree diagram can help you keep track of every possible outcome and show them in a clear order.

Example:

George is making sandwiches for his family. He has both tuna and egg salad. Bread choices are a roll, whole wheat, or rye. How many sandwich combinations are possible? Note: Using abbreviations can help keep your diagram simple. In the example, T = tuna, E = egg; RO = roll, WW = whole wheat, RY = rye.



6 combinations

1. **Girls at St. Stephens' School have the following uniform choices: skirt or slacks, long or short sleeve blouse, and a sweater or a jacket. How many different outfits can the girls create?**

2. **A three-day tour offers travelers the following activities: Day 1—going whale watching or to a baseball game; Day 2—hiking or sightseeing; Day 3—visiting a museum, a historic battlefield, or a landmark. How many possible outcomes are there?**

Oh Canada!

Canada is the second largest country in the world. It is slightly larger than the continent of Europe. The name *Canada* is thought to be a corruption of the Iroquois word *Kanata*, which means community. Canada was the French colony of New France until the 1763 British conquest.

The Canadian flag has a red stripe on either side of a white midsection containing a maple leaf. The outer stripes represent the Atlantic and Pacific Oceans and were originally planned to be blue. However, they were changed to red to represent the blood shed by Canadian soldiers in World War I. The white represents the snowy North.

Approximately 80 percent of Canada's population lives within 100 miles of the U.S. border. English and French are the two official languages of Canada. In addition, there are many indigenous and immigrant languages spoken. There were and still are many First Nations, or native cultures, in Canada—each with its own language, culture, and history. Canada's diverse population provides a rich and varied culture and folklore.

Although hockey is the country's most popular sport, lacrosse is actually the national sport. Hockey was supposedly invented in Canada (or possibly in New England—disputes continue) and has been a proud part of the Canadian way of life for many centuries. Lacrosse is based on a traditional Iroquois game. Because of its cold climate, Canadians enjoy winter sports, including ice-skating, skiing, snowboarding, curling, sleigh riding, and tobogganing.

Canada's wealth comes from natural resources, farming, ranching, fishing, and tourism. Canada's prairies are huge suppliers of wheat, canola, and other grains. Canada is the world's largest producer of zinc and uranium, and a world leader in producing gold, nickel, aluminum, and lead. Timber is also a major natural resource.

One final note of interest is that Alberta, Canada, has more dinosaur finds than any other place on Earth. In the southeastern quadrant of Alberta is a swath of lunar-like landscape known as the Canadian Badlands. This ancient seabed is home to some of the world's richest deposits of prehistoric fossils and dinosaur finds.

After reading the above passage on Canada, answer the following questions.

1. **Canada is slightly larger than the continent of _____.**

2. **The two red bands on the Canadian flag represent the**

   _____ and _____ _____.

3. **Canada's national sport is _____.**

4. **The best place in the world to find dinosaur fossils is _____.**

5. **Canada is the world's largest producer of _____ and _____.**

Guide Words

At the top of each page in a dictionary are **guide words**. These two words tell you the first and last words that appear on that page. When looking up a word in the dictionary, the guide words will help you locate that word more quickly.

Look up the words below in a dictionary. Write the guide words for that page on the lines provided. Then list another word that would be found on that page in the dictionary.

	First Guide Word	Last Guide Word	Additional Word
1. **masterful**	_____	_____	_____
2. **expand**	_____	_____	_____
3. **nausea**	_____	_____	_____
4. **solvent**	_____	_____	_____
5. **discretion**	_____	_____	_____

Best Reference Source

Circle the letter next to the best resource to use for each task listed.

6. **In which reference book would you find information about the phases of the moon?**
   A. encyclopedia B. atlas C. almanac
7. **In which reference book would you find the definition of *nebulous*?**
   A. thesaurus B. dictionary C. encyclopedia
8. **In which reference book would you find information on the history and culture of Peru?**
   A. atlas B. encyclopedia C. almanac
9. **In which reference book would you find the best map of Europe?**
   A. thesaurus B. encyclopedia C. atlas
10. **In which reference book would you find the most synonyms for the word *fatigue*?**
    A. dictionary B. thesaurus C. encyclopedia

Mean, Mode, Median & Range

Mean, **median**, *and* **mode** *are three kinds of averages.* **Range** *is the difference between the largest and smallest value in the group of numbers.*

1) To find the **mean** *of a set of numbers, add all the numbers and then divide their sum by the number of addends.*

2) The middle number in a set of numbers is the **median**. *To find the* **median**, *the numbers must first be arranged in order. If there are two middle numbers (which will occur if there is an even number of addends), the* **median** *is the average of the two middle numbers.*

3) **Mode** *refers to the number that occurs most frequently in a set of numbers.*

Find the mean, mode, median, and range for each problem below.

1. **Gloria is very worried about her math grade. Currently her grades are 61, 79, 52, 56, 78, 79, and 71.**

   Mean: _____ Median: _____ Mode: _____ Range: _____

2. **Restaurant Delux served the following number of diners over a period of ten days: 171, 208, 216, 212, 152, 171, 136, 193, 124, and 163.**

   Mean: _____ Median: _____ Mode: _____ Range: _____

3. **The seventh grade at Lincoln Junior High School reported the following absences for the first two weeks in October: 8, 6, 11, 9, 4, 12, 2, 9, 10, 9.**

   Mean: _____ Median: _____ Mode: _____ Range: _____

4. **Mega Market has seven locations in one region. The number of employees by store are 235, 330, 435, 245, 320, 235, and 325.**

   Mean: _____ Median: _____ Mode: _____ Range: _____

5. **The Kearny Soccer Team won all seven of its league games. Their scores were 3, 9, 7, 5, 4, 3, and 5.**

   Mean: _____ Median: _____ Mode: _____ Range: _____

Analogies

Analogies *show relationships between pairs of words or terms. Analogies are generally written in the following form:*

Example: duet : two : : quartet : four (**duet** is to **two** *as* **quartet** is to **four**)

To solve an analogy, study the first pair of words until you discover the relationship between them.

Example: misty : foggy (synonyms) : : messy : _____

A. dressy B. noisy C. tidy D. sloppy

(Sloppy is a synonym for messy so it is the best choice.)

Analogies may be synonyms, antonyms, homonyms, rhyming words, parts of a whole, and many other comparisons.

The following problems represent a variety of possible categories of analogies. Circle the correct letter.

1. **turkey :** _____ **: : milk : drink**
   A. ice cream B. food C. plate D. wedding
2. **replica : copy : : petty :** _____
   A. trivial B. serious C. peculiar D. pallor
3. **lavender : purple : : ruby :** _____
   A. green B. blue C. red D. yellow
4. **coyote : desert : : dolphin :** _____
   A. water B. ocean C. swim D. stream
5. **tusk : walrus : : antler :** _____
   A. zebra B. moose C. ivory D. cow
6. **octagon : eight : : pentagon :** _____
   A. three B. seven C. rectangle D. five
7. **lose : win : : attack :** _____
   A. karate B. defend C. charge D. score
8. **mousse : moose : : mussel :** _____
   A. clam B. whip C. muscle D. food
9. **tomato : ketchup : :** _____ **: guacamole**
   A. chicken B. avocado C. chips D. mash
10. **ballerina : dancing : : vocalist :** _____
    A. voice B. music C. singing D. performance

Exponents and Powers

Exponents *give a convenient way to write some numbers in a shortened form.*
Remember: *An* **exponent** *is a number that tells how many times another number (***base***) is used as a* **factor**.

The term **power** *is given to the* **exponent**.

Example: *2 x 2 x 2 can be written as* 2^3. *It is read as 2 to the power of 3 or 2 cubed.*

Find the value of each number.

1. 7^3 2. 20^3 3. 13^5 4. 4^5 5. 5^4

Solve each problem below.

6. $2^2 + 3^3 =$ _____

7. $4^2 - 2^2 =$ _____

8. $4^3 + 3^2 =$ _____

9. $1 \times (2^2 \times 4^{2)} =$ _____

10. $2^2 + (4 - 2) =$ _____

11. $4 \times (2^2 \div 1) =$ _____

12. $6^2 + 3^2 - (2^2 + 2^3) =$ _____

13. $5^2 + 6^2 + 4^2 =$ _____

14. $(5^3 - 2^{2)} + (4^2 + 2^{3)} =$ _____

Math Review

Solve each problem.

1. **Circle the number from the given set in the box that**
   is an odd number.
   is greater than 7.
   is not a prime number.
   is not a multiple of 3
   is a factor of 343.

1	3	4	6	8	9
11	14	16	21	23	
27	31	32	35		
38	40	41	45	49	

2. **Brooks Elementary School cost $1,349,739.00 to build, but the cost of Lakeside High School's addition is 3 times as great. How much did the high school addition cost?**

3. **Julio is buying a used car. He paid ¼ of the cost as a down payment. If the down payment was $1,283.12, what will be the total price of the car?**

4. **The regular size coffee at the local mini-mart is 8 ounces. Diane drinks 4 cups every day for a week. How many ounces does she drink in one week?**

5. **Second period Language Arts has a total of 21 students. The ratio is 5 girls to 2 boys. How many girls are in the class?**

6. **When Tony empties his pockets, he finds 7 coins with a total value of $.48. What coins does he have?**

7. **On her trip this week, Janet drove 3 hours and 10 minutes one way. Her next trip is 4 times as far. How long will she drive on her next trip?**

Extra Challenge

8. **Sal's Diner is famous for their 3-minute egg. This morning, the usual timer is broken. The other two hour-glass type timers in the diner can only measure 2 minutes or 5 minutes. How can Sal be certain he boils his eggs for exactly 3 minutes?**

A Timely Business

To **draw conclusions** *is to use the information in a story to make a logical assumption.*

April 15, 1860—The pony express mail delivery service is happy to announce that its riders finished the first complete run from Saint Joseph, Missouri, to Sacramento, California. It originated on April 3.

For those of you unfamiliar with the pony express, this impressive service employs men who ride fast ponies or horses, relay-style, across a 1,966-mile trail. These men carry letters and small packages. They promise delivery from one end of the trail to the other in 10 days or less!

Finally, there is a way to communicate long distance with friends and acquaintances. You will not have to rely on slow boats or stagecoaches. About 180 riders, 400 fast horses, and 190 pony express stations make up the pony express. Its riders are generally of small build, and many are teenagers. A day's work consists of about a 75-mile trip, with stops at several stations. The stations are about 10 to 15 miles apart. Riders earn about $100 to $150 a month.

Currently, it costs $5.00 to send half an ounce of mail. However, the price could fall to $1.00 in the future if the service continues to do well. Mail usually travels at a rate of about 200 miles a day. The pony express operates both day and night to ensure timely delivery of important letters and packages. Its riders work in all kinds of weather.

October 26, 1861—Sad news for the pony express. After operating for only about 19 months, the service closed its doors today. This came just 2 days after the opening of the transcontinental telegraph, a device that has revolutionized long-distance communication. Needless to say, the pony express faces huge monetary losses.

The closing comes just months after the pony express service boasted of a 7-day, 17-hour delivery from St. Joseph, Missouri, to Sacramento, California. The record-breaking ride delivered a copy of President Abraham Lincoln's first address to Congress.

1. **Which statement shows what was least likely to have happened after the pony express closed?**
   A. People relied on boats and stagecoaches for mail delivery.
   B. Pony express riders had to find new jobs.
   C. There were many fast horses for sale.
   D. News traveled more quickly by means of the transcontinental telegraph.

2. **How do you think people felt about the pony express closing.** _____

   _____

   _____

3. **How do you think the pony express riders felt after the pony express closed.**
   A. relieved B. tired C. defeated D. enlightened

4. **What do you think would have happened to the pony express if it had stayed open after the transcontinental telegraph opened?**
   A. It would have hired more riders and built several more trails for its riders to use.
   B. People would have stopped using the pony express once they saw it was more efficient to communicate over distance by means of the transcontinental telegraph.

Etymology of English Words

Complete the sentences and passages below by choosing the correct word from the word bank.

WORD BANK

atlas	denim
Saturday	chauvinism
harmony	dungarees
leotards	arachnids
cereal	malapropism

1. **In the 19th century a French acrobat, Jules Leotard, performed in tight fitting clothes now called _____.**

2. **Sturdy, coarse cotton cloth from "de Nimes," France, is known in English as _____.**

3. **People in Dungri, India, wove a sturdy cotton that was used to manufacture pants called _____.**

4. **Mrs. Malaprop, a character in a play by Richard Brinsley Sheridan, uses words that sound *almost* like the correct word but make the statement ridiculous. In one instance, she advises, "Illiterate him quite from your mind." Now, such a mistake is called a _____.**

5. **A collection of world maps is called an _____, after the Greek myth about the man who holds the world on his shoulders.**

6. **Grains eaten for breakfast are called _____ after Ceres, the goddess of agriculture.**

7. **Saturn lends his name to this day of the week _____.**

8. **In Greek mythology, Harmonia was the offspring of Love and Strife. Her name is the source of the word for bringing together of elements, or _____.**

9. **Athena turned the weaver Arachne into a spider, which are now classified as _____.**

10. **Nicolas Chauvin was a French soldier whose name led to the word _____, meaning feeling superior to women or other groups.**

Helping Your Middle Schooler Get Ready: Week 10

These are the skills your middle schooler will be working on this week.

Math
- surface area and volume
- mixed practice
- measurement review

Reading
- making predictions
- interpreting a poem
- reading for information

Writing
- descriptive writing

Vocabulary
- synonyms
- idioms

Grammar
- proofreading

State	Capital
Montana	Helena
Ohio	Columbus
Oregon	Salem
Texas	Austin
Vermont	Montpelier

Here are some activities you and your middle schooler might enjoy.

Easy Science Experiment Help your middle schooler understand a basic heat fact: heat rises! To prove it, head to the kitchen sink with 2 identical pint jars, 2 index cards, and some food coloring.

Now, fill one jar with cold water and one with warm water. Place a few drops of food coloring into the jar of warm water and set it in the empty sink. Place the index card over the top of the cold water jar; turn it upside down and place it on top of the warm water jar. (This may take a couple of attempts because it is somewhat tricky.) Gently pull out the card from between the two jars and watch as the two mix together. Empty the jars.

Now ask your middle schooler to repeat the experiment. However, this time put the warm, colored water on top. Have him or her remove the card and watch as nothing happens. Explain that this is because heat always rises. Since the top jar had hot water in it, it did not sink and mix with the water in the bottom jar.

Are You Listening? To help your middle schooler acquire better listening skills, have him or her listen carefully as you read and reread a list of states and their capitals. Then ask your middle schooler to repeat the states and capitals in the order that you have dictated. Additionally, instead of states and capitals, try some foreign countries and their capitals.

Your middle schooler might enjoy reading the following books:

Lance Armstrong: A Biography
by Bill Gutman

The Mysterious Benedict Society
by Trenton L. Steward

The Blue Sword
by Robin McKinley

My Week at a Glance

Use this page to set goals and make journal entries.

Goals for Monday

Journal: The local TV station has begun a talk show for middle school students. You are the first guest. What will you talk about?

Goals for Tuesday

Goals for Wednesday

Journal: Would you rather be a talented artist or an accomplished musician? Why?

Goals for Thursday

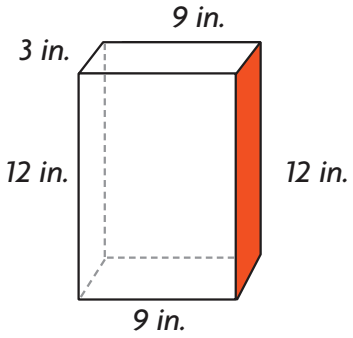
Goals for Friday

Journal: Describe your perfect summer day.

Surface Area of a Rectangular Prism

A rectangular prism has six faces. To find the **surface area** *of a rectangular prism, you must calculate the sum of all the faces, or surfaces, of the solid. The surface area of rectangular prisms can be found using this formula: SA = 2lw + 2lh + 2wh.*

Example:



Top	+	Bottom	+	Front	+	Back	+	Left	+	Right
9 (3)	+	9 (3)	+	9 (12)	+	9 (12)	+	3 (12)	+	3 (12) =
27	+	27	+	108	+	108	+	36	+	36 =

The surface area is 342 square inches.

Find the surface area of the following.

1. **A cube whose edges are 4 in.** _____
2. **A rectangular prism that is 3 in. by 5 in. by 2 in.** _____
3. **A rectangular prism 15 in. by 30 in. by 12 in.** _____
4. **A rectangular prism 23 cm by 5 cm by 9 cm** _____
5. **A cube whose edges are 10 cm** _____
6. **A rectangular prism 2 m by 1 m by 3 m** _____
7. **A cube whose edges are 5 yd** _____
8. **A rectangular prism 50 mm by 70 mm by 100 mm** _____
9. **A rectangular prism 2.5 ft by 3.1 ft by 7 ft** _____
10. **If a rectangular prism is 5 in. wide and 10 in. high, and has a surface area of 280 sq in., what is the prism's length?** _____

Seems the Same

Each of the following words has a **synonym** that will serve as a partial definition listed among the four choices. Circle the correct word.

1. **wink**
   A. come B. wave C. cute D. eye signal

2. **marvelous**
   A. pitiful B. giant C. wonderful D. beautiful

3. **fret**
   A. laugh B. worry C. ask D. cry

4. **drowsy**
   A. sleepy B. night C. dream D. morning

5. **disaster**
   A. police B. flood C. accident D. great misfortune

6. **license**
   A. driver B. permission C. illegal D. test

7. **rumble**
   A. low noise B. sonic boom C. machinery D. arm

8. **furious**
   A. tired B. usual C. loud D. angry

9. **ambition**
   A. ability B. wish C. study D. desire for success

10. **blunder**
    A. discourage B. success C. joke D. mistake

Predicting Outcomes

Good readers make predictions as they read.

Forests in Jeopardy

Since the 14th century, Switzerland's forests have protected mountain villages and farms from avalanches of snow, falling rocks, and earth slides. Until recently the people have protected the forest, but now more than half the trees in the Swiss Alps are showing signs of damage and decay. Air pollution is a major cause of injury to needles and leaves. It also changes the chemistry of the soil, hindering a tree's ability to absorb nutrients.

Another problem is lack of good forestry management. Some areas have been planted with only one type of tree. Many workers lack motivation and training necessary to take proper care of the forest. Neglected forests become a target for bark beetles, which are the most destructive insects in the coniferous forests of the Southwest.

Any time the wind blows over even a few of the weakened trees, additional wind erosion increases the size of the devastated area. The remaining thin layer of soil is quickly washed away by the rain, making new planting impossible. Now there are fewer leaves to break the impact of rain and snow. At the same time, fewer trees mean fewer roots to absorb water, and floods increase.

Some steps the Swiss have taken include the following: strict pollution laws, emergency care to forests, and planting thousands of tree seedlings.

1. **Describe two possible consequences that might result from forest neglect.**

_____

2. **What effect may result from some of the measures being taken to preserve Swiss forests?**

_____

3. **What is the longterm likelihood of stopping the erosion in the Alps? Substantiate your theory.**

_____

_____

4. **What would be the logical consequences of doing nothing in the forests?**

_____

The Whole Nine Yards

Idioms *are expressions that have a figurative meaning that is different from what each individual word means.*

Example: *to be* in a pickle *means to be "in trouble."*

Idioms may be unique to certain groups, countries, or regions. Knowing idioms can improve your comprehension.

What is meant by these common idioms?

1. **Run out of steam:** _____
2. **Raining cats and dogs:** _____
3. **Haste makes waste:** _____
4. **Let the cat out of the bag:** _____
5. **Bend over backwards:** _____
6. **When it rains, it pours:** _____
7. **Saved by the bell:** _____
8. **Great minds think alike:** _____
9. **Don't put all your eggs in one basket:** _____
10. **Don't count your chickens before they've hatched:** _____
11. **Make no bones about it:** _____
12. **A piece of cake:** _____
13. **Smell something fishy:** _____
14. **Rise and shine:** _____
15. **Have an ax to grind:** _____

Mixed Math Review

Solve the following problems. Show your work.

1. **Hundreds of years ago, people wore completed magic squares around their necks for good luck. Here is your chance to try your luck at completing a magic square. Each row, column, and diagonal must add to the same sum. Each number can only be used once. Use the numbers 1 through 9 to reach a total sum of 15 for each row, column, and diagonal.**

1	5	
		2

2. **Ms. Lopez wants to replace the carpeting in her family room. The room is 14 feet by 12 feet. How much carpeting does she need to buy?** _____

3. **Fifty-one feet equals how many yards?** _____

4. **The zoo crew has fed 72% of the 200 animals living in the reptile house. How many animals have yet to be fed?** _____

5. **Coach Murphy bought 4 times more soccer balls than basketballs. If he bought 82 basketballs, how many soccer balls did he purchase?** _____

6. **Midvale's Baseball Team won 36 games this season. If this is 75% of its games, how many games did the team play?** _____

7. **Miles loves to read books. Over the summer, he read 9 fiction books and 20 nonfiction books. What is the ratio of fiction books to nonfiction books that he read?** _____

8. **Cynthia purchased 4 CDs at the mall. The CDs cost $10.96, $12.35, $13.07, and $17.89. What is the mean price of the CDs?** _____

Spread Your Wings

by Madison Antinazi

A joyless journey, a tragic tale
Throughout which a girl is thinking
"Why must I fail to please my dad?
Why must his love be shrinking?"

I've felt her pain. I've cried her tears.
I've traveled through her life.
I've witnessed all her troubles,
Her toils and her strife.

I feel I want to help her
When no one else would try.
This story really touched me.
It brought out my family ties.

I would be frightened, too, you know,
If I were in her shoes,
With a family who cares not for me,
I'd know not what to do.

This girl was born of sorrow.
She grew up with the fewest things.
One thing she must remember
Is to always spread her wings.

After reading the poem, answer the following questions.

1. **Why is the girl in the poem sad?** _____

_____

2. **How does the poet express her empathy?** _____

_____

3. **What must the girl in the poem remember?** _____

_____

A Trash Collector's Work Is Never Done

Brian Kane was a trash collector in Denver, Colorado. Eight hours a day, five days a week, fifty weeks a year, Brian rode on the back of a garbage truck through the streets of this mile-high city. At each stop, he would jog quickly to the back of buildings, then drag heavy trash cans to the truck. Brian never complained—even when sweat stung his eyes or cold wind turned his fingers into sticks of ice.

Brian saw these hardships as opportunities to become strong and fit. His job was actually a training ground for his lifelong dream: to climb Mount Everest, the highest mountain in the world. On his thirtieth birthday, Brian took a three-month leave from his job and flew to Nepal. There he began the long, difficult journey up Mount Everest.

Brian first climbed to a base camp. He stayed there for a couple of weeks to get used to the thinner air. Brian had also planned to bring three oxygen canisters with him to the summit, at 29,028 feet, it would be hard to survive without extra oxygen. Over the next two months, Brian climbed to 26,000 feet, to Camp Four—the last place to rest below the summit. But when Brian saw this camp, he gasped and fell to his knees.

"Trash!" he cried. Nearly a thousand empty oxygen canisters littered the camp area. Humans had turned this beautiful, remote place into a giant trash heap. Sad, but determined, Brian continued to follow his dream. Two days later he stood proudly on the peak of Mt. Everest. He had reached the "roof of the world!"

Two days after this great achievement, Brian stuffed a dozen empty oxygen canisters in his pack and headed down the mountain. He smiled to himself as he realized that the work of a trash collector is never done.

Fill in the letter with the best answer for each question.

1. **How does Brian feel about his job as a trash collector?**
   A. He does not like his job.
   B. He hates the smell of garbage.
   C. He likes to work outside and to be in shape.
   D. He always complains about the hard work.

2. **Why did Brian drop to his knees when he saw the pile of trash on Mount Everest?**
   A. He missed his job as a trash collector.
   B. He was so tired he could not stand.
   C. He realized that pollution and trash are everywhere.
   D. He wanted to see how many oxygen canisters there were.

3. **What did Brian do after he saw the trash on the mountain?**
   A. Brian visited the base camp.
   B. Brian flew to Nepal.
   C. Brian reached Camp Four.
   D. Brian climbed to the top of Mount Everest.

4. **Why did Brian carry twelve empty oxygen canisters down the mountain?**
   A. He believed even small efforts are important in keeping the Earth clean.
   B. He thought they are valuable.
   C. He planned to organize a party.
   D. He needed to fill the canisters.

All Alone

Narrative writing tells a story. Usually the story follows a natural time sequence, especially when you are writing about a personal experience. Using questions such as Why? Where? When? How? and Who? you can develop the details to write your narrative story. Always use transitional words, such as *first, then, later, soon, after, when, next,* or *before*.

In this assignment, describe a time in your life **when** you felt totally alone. **Where** were you at this time in your life? **What** caused you to feel alone? **How** did you overcome this lonely feeling? **Who** helped you to recover from your feeling of loneliness?

Measurement Review

Complete each sentence below to review what you know about units of customary measure.

1. A year has 12 _____.
2. A _____ contains 4 quarts.
3. A quart equals 2 _____.
4. A group of ten years is called a _____.
5. $\frac{1}{60}$ of an hour is a _____.
6. $\frac{1}{4}$ of a quart is a _____.
7. A _____ has 52 weeks.
8. A minute has 60 _____.
9. Another term for 100 years is a _____.
10. A non-leap-year February has exactly 4 _____.
11. Another way to say 12:00 A.M. is _____.
12. A typical cat might weigh 10 _____.
13. There are _____ units in half a dozen.
14. The abbreviation for the weight equivalent to 16 ounces is _____.
15. Half a century is equal to _____ years.
16. A leap year occurs every _____ years.

Read Carefully

When you **proofread** *your work, you look for errors and mark them so that you can correct them. Here are some marks you can use when you proofread your work.*

delete	The ~~the~~ phone rang.
insert a word	The ^phone rang.
insert a comma	The phone rang, and I answered it.
insert quotation marks	A voice said, "Hello."
insert a period	The phone rang.
insert an apostrophe	It's ringing again.
close up space	The ph one rang.
insert a space	The|phone rang.
switch order of letters	The phone ragn.
capitalize	the phone rang.
make lowercase	The phone rang.
start new paragraph	¶The phone rang.

Read the following part of a story. Proofread it using the marks above. There are 13 errors.

The most amazing thing happened this morning. I still can't believe it! Just as I was about to fill one of my feeders, I noticed a Chickadee perched on the lower branch of a nearby tree The little bird seemed to be watching me. Of course, chickadees really like like sunflower seeds, and that's what I always put in this feeder. I figured it was probably hungry and just waiting for me to finish up and leave. It was then that I got this great idea.

Chicadees are supposed to be easy to hand tame. well, the chickadee was still perched on the, and I had the seeds, so I decided to try. I took a bunch of seeds, held out my hand—palm up—next to the feeder and stood very still. I didnt even scra tch my nose when it started to itch! About a minute later, the chickadee flew to the tree closest to the feeder. I held my breath and waited. The didn't fly to my hand, but it did fly to the feeder! It took a seed and flew off to eat it. I knew it wuold be back, so I continued to watch and wait

Week 1 • Day 1
Basic Operations

Math Number Puzzle

Complete the math puzzle by solving the across and down problems below. Write your numeric answers in the appropriate boxes in the puzzle. Commas should not be part of your answer.

A 2	2	7	5	■	C 7	D 6	
4	■	■	1	■	E 5	0	
8	■	F 1	8	0	2	8	
■	B 2	■	4	■	1	■	
■	H 5	I 1	■	J 9	3	K 5	
L 1	4	4	0	8	■	1	
M 8	4	4	■	N 7	2	5	

Across

A 9 257 − 6 982 =
C 19 x 4 =
E 100 ÷ 2 =
F 4 507 x 4 =
H 25 + 26 =
J 448 + 487 =
L 5 860 + 8 548 =
M 808 + 36 =
N 25 x 29 =

Down

A 4 x 62 =
B 6 072 − 888 =
C 8 357 x 9 =
D 2 432 ÷ 4 =
G 424 x 6 =
I 12 x 12 =
J 187 + 800 =
K 1545 ÷ 3 =
L 9 x 2 =

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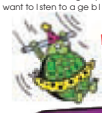
Week 1 • Day 1
Logical Reasoning

Talent Show

Plan a schedule for a pet talent show by filling in the program below. Use the information given about your performers and this key requirement: all acts cast about 15 minutes, no longer. (After all, how long would you want to listen to a gerbil's jokes?)

Pet Performer Data

- The hamster does headstands. He is a ham and wants to go last.
- The gerbil tells jokes. She is jumpy and won't go first.
- The puppy fetches. That's too long. Get this act over with as fast as you can.
- The kitten juggles yarn. She won't perform just before or after the dog or parakeet.
- The parakeet does funny impersonations. She won't follow a comic.



Possible order given. Times will vary.

Pet Talent Show

Act	Time
puppy	
parakeet	
gerbil	
Intermission for Pet Exercise and Water Break (20 minutes)	12 noon
kitten	
hamster	

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Week 1 • Day 2
Fractions & Decimals

The Old-Fashioned Way

Old time soda jerks had some strange names for the treats they served. Listed are ten of those names. To translate each old time phrase into modern day prose, change each fraction to a decimal, then find that decimal next to one of the modern phrases. Write the letter of the answer in the blank provided.

Converting Fractions to Decimals

To write a fraction as a decimal, divide the numerator by the denominator.

Example: $\frac{4}{5} \longrightarrow 5\overline{)4.0}^{\,8}$

$\frac{4}{5} = .8$

Old Time Phrase			Modern Phrase		
A	1 Suds in the Air	$\frac{3}{5}$	A	6	Glass of Root Beer
I	2 One on the City	$\frac{3}{4}$	B	36	Two Orders of Strawberry Ice Cream
C	3 Burn One All the Way	$\frac{5}{8}$	C	625	Chocolate Malted With Chocolate Ice Cream
G	4 MD on Wheels	$\frac{17}{50}$	D	2.5	Banana Split
B	5 Pair of Patches	$\frac{9}{25}$	E	15	Large Scoop of Chocolate Ice Cream
F	6 Sinkers and Suds	$\frac{1}{2}$	F	1.5	Coffee and Donuts
D	7 House Boat	$\frac{5}{2}$	G	34	Dr. Pepper to Go
E	8 Bucket of Mud	$\frac{3}{20}$	H	13	Chocolate Malted With an Egg in It
H	9 Twist It Choke It	$\frac{2}{15}$	I	75	Glass of Water
J	10 Stretch One and Hold	$\frac{2}{3}$	J	66	Large Coke Without Ice

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Week 1 • Day 2
Reading for Details

How the Government Works

In the United States our laws are made by lawmakers; no one person rules over the country or its citizens. There are three branches of government: legislative, executive, and judicial. Laws are made by the legislative branch. Enforcement of the laws is the duty of the executive branch. When a difference of opinion occurs, the judicial branch decides the outcome—who is right or who is wrong.

The executive branch at the local level is headed by the mayor, city managers, or county commissioners. At the state level, it is the governor who holds the top elected position. The president is the chief executive of the entire country. The legislative branch is divided into two branches, the House of Representatives and the Senate. The judicial branch consists of judges and courts. Some judges are elected while others are appointed. While judges make the decisions in some courts, juries, consisting of groups of citizens, make the decisions in other cases.

Governments are mandated, or required, to do many things: collect taxes, make laws, build roads and bridges, and provide for the common defense of the citizens. Protection under the law includes not only law enforcement (police and the military), but also agencies dedicated to protecting us from polluted water and harmful and/or impure food and drugs. Governments also help unemployed and poor people, support public schools, maintain areas for parks and recreation as well as many other functions that promote the general welfare of the people.

Based on your reading of the passage above, answer the following questions.

1 **Which answer best describes how our court system works?**
A A jury consists of six men and six women.
B Judges decide all cases that are presented.
C A jury must be selected for every case heard.
D A judge or a jury decides cases.

2 **Match each branch of government with its primary responsibility.**
Legislative — Decides disputes
Judicial — Enforces laws
Executive — Makes laws

3 **Four mandated activities of government are**
A collect taxes
B make laws
C build roads and bridges
D provide for the common defense

4 **What is the title of the leader of the local executive branch where you live?**
Answers will vary but should be one of the following: mayor, city manager, county commissioner

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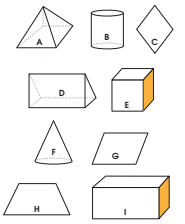
Week 1 • Day 3
Geometry

What Have You Learned About Geometry?

Match each geometry term with its picture.

F 1 cone
H 2 trapezoid
A 3 square pyramid
B 4 cylinder
D 5 triangular prism
I 6 rectangular prism
E 7 cube
G 8 parallelogram
C 9 rhombus



Review the information about perimeter and area in the box. Then solve each problem.

Finding Perimeter and Area

Perimeter of a rectangle	*2 x length + 2 x width*
Area of a rectangle	*length x width*
Area of a triangle	*½ (base x height)*

10 **A fabric top is shaped like a right triangle with a base of 35 inches and a depth of 40 inches. What is the area of the tabletop?**
700 sq ft

11 **Cesar has a new desk that is 18 inches long and 12 inches wide. What is the area of Cesar's desk?**
216 sq in.

12 **If Al hits a home run on a baseball diamond, which has three bases and home plate that are each 90 feet apart, how many feet will he run rounding the bases?**
360 ft

13 **How many feet of fencing will Mr. Stanley need to fence a school yard 90 feet long and 60 feet wide?**
300 ft

14 **What is the area of a brick patio that is 8 feet long and 12 feet wide?**
96 sq ft

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Week 1 • Day 3
Subject-Verb Agreement

Subject-Verb Agreement

Subjects and verbs must be in **agreement**. *When the subject is* **singular**, *the verb must be* **singular**, *as well. A* **plural** *noun requires a* **plural** *verb. Generally, the verb does not require a change in form to agree with its subject. The exception is in the present tense third person; the singular verb ends in s.*

Examples: A cricket makes a musical sound. (singular)
Crickets make a musical sound. (plural)

In each sentence, draw a circle around the correct verb.

1 Erosion (is, are) the wearing away of land.
2 Natural forces such as wind and water (cause, causes) most erosion.
3 Glaciers (rivers of ice) (act, acts) like plows pushing rocks and soil ahead of them.
4 Waves and running water (is, are) the chief elements causing erosion.
5 Rain water, a form of running water, (does, do) more damage than the combined damage done by waves, ice, and wind.
6 Solid rock (wears, wear) away more slowly than loose soil.
7 Sand, blown by the dry wind, sometimes (carves, carve) strange rock formations.
8 Erosion (occurs, occur) more slowly on plant-covered soil than on barren soil.
9 Hillside erosion (takes, take) place more quickly than erosion on level ground.
10 To fight erosion, farmers (plow, plows) hillside fields horizontally.
11 When a gully forms, it (is, are) the sign of erosion.
12 People who (know, knows) about the problem of erosion (work, works) to prevent further damage to valuable land.

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Week 1 • Day 4
Mixed Fractions

Computation Survey

Solve the 16 fractions and mixed number problems below. Always work carefully and pay attention to the signs. Reduce answers to the lowest terms. Show your work.

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

2 $\frac{4}{5} - \frac{3}{5} = \frac{1}{5}$

3 $2\frac{1}{4} = \frac{2}{4} = \frac{1}{2}$

4 $3 \div \frac{1}{4} = 12$

5 $\frac{1}{4} + \frac{1}{8} = \frac{3}{8}$

6 $\frac{2}{5} - \frac{1}{3} = \frac{1}{15}$

7 $\frac{2}{3} \cdot \frac{2}{3} = \frac{4}{9}$

8 $\frac{1}{2} \div \frac{4}{5} = \frac{5}{8}$

9 $3\frac{7}{9} + 4\frac{4}{9} = 8\frac{2}{9}$

10 $4\frac{1}{3} - 1\frac{2}{5} = 2\frac{14}{15}$

11 $3\frac{3}{4} \cdot 2 = 7\frac{1}{2}$

12 $6 \div 3\frac{2}{3} = 1\frac{7}{11}$

13 $2\frac{3}{4} + 3\frac{4}{5} = 6\frac{11}{20}$

14 $4\frac{1}{4} + 1\frac{5}{6} = 6\frac{1}{12}$

15 $3\frac{1}{7} \cdot 1\frac{3}{4} = 5\frac{1}{2}$

16 $1\frac{1}{5} \div 2\frac{1}{6} = \frac{36}{65}$

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Week 1 • Day 4
Sentence Fragments

Identifying Incomplete Sentences

A **sentence** *must have both a subject and predicate (verb) to express a complete thought.*
A group of words that lacks a subject, a predicate, or both is a **sentence fragment**.
A fragment does **not** *express a complete thought and must be avoided in writing.*
Note: Some sentences may have an implied subject (you).

Examples:
Dumped many chests of tea into the Boston Harbor (lacks a subject)
The Minutemen from nearby towns (lacks a predicate)
On July 4, 1776 (lacks a subject and a predicate)
Remember the days of the Minutemen as you read this passage (complete sentence; you is understood)

Draw one line under the subject and two lines under the predicate of each complete sentence. If a sentence is not complete, write **F** (fragment) in the blank. If the sentence expresses a complete thought, write **S** (sentence) in the blank.

F 1 A very high mountain
S 2 Mt. Everest is a high mountain in Nepal
S 3 Sir Edmund Hillary was the first to climb Mt. Everest
S 4 Hillary and his group of climbers almost died in the cold
F 5 Hard to breathe on extremely high mountains
S 6 Oxygen is very thin when you travel that high up
F 7 Many of today's explorers
F 8 Without many of these explorers
S 9 These explorers made quite a difference in our world
S 10 Isaac Newton made many important scientific discoveries
S 11 Even today, modern scientists depend on their early discoveries
S 12 Tomorrow's world will certainly be much different than our world today

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Expository Writing

Expository writing *is a type of writing that informs explains describes or defines the author's subject to the reader Examples of this type of writing are cooking instructions driving directions and instructions on performing a task The writer of an expository text cannot assume that the reader has prior knowledge or understanding of the topic*

Write an expository paragraph on the two prompts that follow Be sure to state the problem and list one or more solutions for it **Remember:** Your task is to inform explain describe or define

1 **You are trapped in an empty room The door is locked and there is only one rectangular window above the door There are no other windows in the room In your bag all you have is a roll of duct tape a pen a jump rope and a belt Describe how you will escape**

Answers will vary.

2 **Each year at Forrest Hills Elementary the Egg Drop Contest is conducted behind the school near the cafeteria Entrants are to drop a raw egg from a height of almost ten feet without breaking the shell Describe how you would design a plan to protect your egg and prevent it from breaking**

Answers will vary.

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Figuratively Speaking

Metaphors similes hyperbole personification *and* **oxymorons** *are examples of figurative language*

- *A simile makes a comparison between two unlike things using* **like** *or* **as**
  Example: She was quiet as a mouse
- *A metaphor makes a comparison between two unlike things without using like or as*
  Example: The road was a ribbon of moonlight
- *A personification gives human characteristics and qualities to nonhuman things like animals nature and objects*
  Example: The moon peeked through the clouds and smiled down on us
- *A hyperbole is an exaggerated statement used to heighten the effect*
  Example: The ice cream sundae had toppings that were a mile high
- *An oxymoron is a figure of speech that combines normally contradictory terms*
  Example: Good night good night! Parting is such sweet sorrow *Romeo and Juliet*

Circle the answer that best describes each example of figurative language

1 **Johnny was white as a ghost**
A metaphor (B) simile C personification D oxymoron

2 **Santos looked so sad like a candle with the lame gone**
A metaphor B personification (C) simile D hyperbole

3 **Flaming ice**
A simile (B) oxymoron C metaphor D personification

4 **She's so happy she's walking on clouds**
A oxymoron B simile (C) hyperbole D metaphor

5 **When he gets sick my father is a big baby**
(A) metaphor B personification C oxymoron D hyperbole

6 **The ground rushed up to meet me very suddenly**
A metaphor (B) personification C hyperbole D simile

page 20

Finding Percents

Change the following fractions to percents

1 $\frac{5}{6}$ = 83.3 % 3 $\frac{3}{8}$ = 37.5 % 5 $\frac{4}{9}$ = 44.4 % 7 $\frac{4}{25}$ = 16 %

2 $\frac{6}{7}$ = 85.7 % 4 $\frac{5}{8}$ = 62.5 % 6 $\frac{7}{10}$ = 70 % 8 $\frac{7}{12}$ = 58.3 %

Change each percent to a decimal

9 50% = .50 11 30% = .30 13 1% = .01 15 150% = 1.5

10 75% = .75 12 85% = .85 14 10% = .10 16 55.5% = .555

Change each percent to a fraction in simplest form

17 16% = $\frac{4}{25}$ 19 45% = $\frac{9}{20}$ 21 80% = $\frac{4}{5}$ 23 52% = $\frac{13}{25}$

18 70% = $\frac{7}{10}$ 20 35% = $\frac{7}{20}$ 22 75% = $\frac{3}{4}$ 24 37.5% = $\frac{3}{8}$

page 23

Dictionary Dig

A good dictionary not only tells you a word's pronunciation its parts of speech and examples of correct usage but also is the best source for accurate definitions of the word

Match the vocabulary words in the left column with the correct meaning from the right column A dictionary will certainly help

C 1 bump
K 2 bumptious
L 3 paradox
B 4 cornucopia
A 5 knave
N 6 ketch
F 7 punitive
G 8 placid
H 9 relented
O 10 condominium
I 11 redoubt
J 12 assiduous
E 13 filmflam
D 14 copious
M 15 arsenic

A a rogue rascal
B horn of plenty
C strike or knock with force
D plentiful abundant
E deception fraud
F giving punishment
G peaceful
H gave in
I barricade stronghold
J diligent steady attentive
K noisily self assertive
L self confidence
M little star
N large sailing ship
O unit owned by individual in multiunit building

page 24

Canadian Travels

Imagine you are taking a trip to Nova Scotia Canada Use this table of contents from a travel guide to choose the best answer to each question

Contents

1 **On which pages would you find information about things to see in Halifax?**
A pages 15 20
B pages 21 24
(C) pages 47 58
D pages 71 92

2 **Which section of the book probably has information about early settlers in Nova Scotia?**
A How to Get to Nova Scotia
B Visitor Services
C Customs Information
(D) History

3 **To find information about hotels you should begin reading on what page?**
A page 9
(B) page 105
C page 219
D page 225

4 **To find information about fishing and hiking you should look under**
(A) Recreation
B Travel Tips
C Campgrounds
D Maps

5 **On which pages should you look for a schedule of special events that take place in August?**
(A) pages 15 20
B pages 25 30
C pages 193 206
D pages 219 224

page 25

Thieves Use Ruse to Steal Monet

There are 14 mistakes in the following newspaper article Find the mistakes and rewrite each line correctly in the spaces to the right Remember to look for spelling grammar and punctuation errors

SEWARDSTONE, england
Theaves stole a Monet painting valued at $884,000 from a home on this village in southeastern England after one, desguised as a post man, tricked the owners into leting him in
But Scotland Yard says the theves may not even realize the wirth of the painting Because they seemed to grab the first won they saw A spokesman, expressed concern that it may be dumpped or smugled abroad

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But Scotland Yard says the thieves may not even realize the worth of the painting because they seemed to grab the first one they saw. A spokesman expressed concern that it may be dumped or smuggled abroad.

page 26

Find the Circumference

Circumference *is the measurement around the* **outside** *of a circle*
The **diameter** *is the measurement* **across the middle** *of the circle*
To calculate circumference use the formula **C = π d.**
In the formula C stands for circumference π stands for pi (which is equal to about 3.14) and d stands for diameter To find the circumference multiply pi (3.14) by the diameter

Example:

C = π d
C = 3.14 x 1
C = 3.14 in

Calculate circumferences of these hoops Round your answer to the nearest hundredth

1 d = 5 in
1.57"

2 d = 2 in
6.28"

3 d = 3 in
9.42"

Use a ruler to measure the diameter (and the formula π d) to calculate the circumference of three circular objects in your home yard or park (Examples: a plate the rim of a trash can or a bike tire)

Object	Diameter in inches	Circumference in inches
1		
2	Answers will vary.	
3		

page 27

Repurposing Found Objects

Using two peach baskets and an old soccer ball Dr Naismith invented the game of basketball Now it is your turn to invent a safe indoor game for two or more people You must use at least two of the following found objects from the list below:

Cotton Balls	Craft Sticks	Golf or Sponge Balls
Boxes	Paper Plates	Chopsticks
Straws	Paper or Plastic Cups	Milk Cartons
Plastic Spoons	Coffee Cans	Paper Tubes

HOW TO PLAY _____
(Name Your Game)

I **Equipment needed**
A _____
B _____
C _____

II **Object of the game**
A _____
B _____
Answers will vary.

III **Rules of the game**
A _____
B _____
C _____
D _____

Add any additional steps as needed Try the game with a partner Modify the game as required

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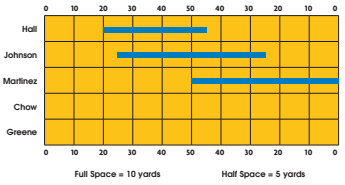
Yard-Line Math

A football field is divided into ten sections of 10 yards each. At each end of the field, 10 yard end zones are included. In this activity, the image of a 100 yard football field is depicted as a graph. Graphs use equal increments and contain data for comparison based on the increments. One space equals 10 yards and a half space equals 5 yards. Use the bold bars to determine yards gained by each player.



1 Hall: 3 full spaces, 1 half spaces, 35 yards
2 Johnson: 4 full spaces, 2 half spaces, 50 yards
3 Martinez: 5 full spaces, 0 half spaces, 50 yards
4 Chow: 2 full spaces, 2 half spaces, 30 yards
5 Greene: 2 full spaces, 1 half spaces, 25 yards

Your turn! Use a pen or colored pencil to make a graph of your data for the following scenario.

Suppose you run a total of 25 yards. Your starting point is the 50 yard line.
Where do you end your run? 25 yard line (in either direction)

page 29

Food Allergies

When Kyla Carter was 12, she went to an amusement park near her hometown of Kingston, New Hampshire. She splashed down on the log flume and then went to find her mother, who was standing in line to get something to eat. A neon sign warned *French Fries Fried in Peanut Oil*.

All of a sudden, Kyla couldn't breathe. "It was very scary," Kyla says. "It's kind of intense. It almost feels like you're choking." Kyla was having a severe allergic reaction to peanuts. She and her mother believe that Kyla inhaled the peanut oil from the amusement park stand. Food allergies can be life threatening. Kyla stopped her reaction by taking a medicine that combats allergic reactions.

About three million Americans are allergic to peanuts and "tree nuts," such as walnuts, almonds, and cashews. (Peanuts aren't really nuts. They're legumes, like peas are.) Approximately 30,000 people in the United States go to the emergency room annually for food allergy reactions.

An allergy happens when the immune system mistakenly believes that a harmless substance is harmful. When the person eats the food, the immune system tries to protect the body by creating antibodies to that food. The next time the person eats that food, the immune system responds to the "invader" by releasing massive amounts of chemicals. These chemicals trigger allergic symptoms that can make a person ill.

The best way to manage allergies is to avoid the food that causes them and to have medication on hand in case an attack happens. "It's not easy," says Kyla, "but you get used to it."

Figuring out the main idea in any text you are reading will help with comprehension and will help you remember it better too. On the lines below, write the main idea in each paragraph identified.

Paragraph 2 Main Idea: Allergic reactions can be severe and life threatening.

Paragraph 3 Main Idea: Food allergies are very common, especially allergies to nuts.

Paragraph 4 Main Idea: Allergic reactions happen when the immune system thinks something is harmful and tries to fight it off by releasing chemicals into the body.

Paragraph 5 Main Idea: The best way to manage food allergies is to avoid those foods and keep medicine on hand.

Source: The Food Allergy and Anaphylaxis Network

page 30

Linear Measurement Conversion

Convert each measurement of length into a different but equal length.
Remember: 12 inches equals 1 foot; 36 inches equals 3 feet; 3 feet equals 1 yard.

Example: 38 inches = 3 feet 2 inches

1 56 inches = 4 feet and 8 inches
2 41 inches = 3 feet and 5 inches
3 1 1/4 feet = 15 inches
4 3 3/4 feet = 45 inches
5 2 1/2 feet = 30 inches
6 3 yards = 9 feet
7 2 yards = 6 feet
8 4 yards = 12 feet
9 11 feet = 3 yards and 2 feet
10 16 feet = 5 yards and 1 feet
11 3 yards = 108 inches
12 2 yards = 72 inches
13 5 yards = 180 inches
14 65 inches = 1 yards and 29 inches
15 75 inches = 2 yards and 3 inches

page 31

Accurate Apostrophes

An **apostrophe (')** *looks like a comma but is raised above the line of writing. Apostrophes are used in contractions, possessive nouns, and some plurals.*

Use apostrophes in **contractions**
A contraction joins two words by omitting some of the letters. Place the apostrophe where letters have been omitted.
Examples: I would = I'd; we will = we'll; they have = they've; she is = she's
Use an apostrophe to form the **possessive** *of any noun, whether singular or plural.*
For a **singular noun** *add* **'s** *even if the word ends in s.*
Examples: Randy's car; Sadie's toy; Jonas's lever
For **plural nouns that end in s** *add only an apostrophe.*
Examples: the neighbors' yards; the carpenters' tools; ladies' voices
For **plural nouns that do not end in s** *add an apostrophe and s ('s).*
Examples: children's song; the men's gymnasium; the deer's trails

In each sentence below, underline the correct answer in the parentheses.

1 I suppose (Im / I'm) confused about the assignment on writing the paragraph.
2 These (children's / childrens') books are due at the library by Friday.
3 Kathy thinks (were / we're) using the wrong formula for the experiment.
4 (Amias / Amias') car would not start this morning when she was ready for work.
5 The (patrolmen's / patrolmens') cars have flashing blue lights mounted on top.
6 (I've / I've) no idea who took the last cookie.
7 While (your / you're) dictionary is open, look up the definition.
8 The three (farmers' / farmer's) tractors were lined up for inspection.
9 Three students (didnt / didn't) show up on time today.
10 (Whos / Who's) going to the anniversary party with you?
11 (Troy's / Troys') bicycle was left outside the library.

page 32

Multiplying and Dividing Decimals

Study the rules and examples to help you solve the problems that follow. If necessary, use a separate sheet of paper to do your work.

Rule
1 Multiply as you would whole numbers.
2 The number of decimal places in the product is the sum of the decimal places in the factors.
Remember: *When the problem is presented horizontally, line up the numbers on the right. Do* **not** *line up the decimal points.*

Example:

Factor	7	1 decimal place
Factor	x 7	1 decimal place
Product	49	2 decimal places

35 x 0.9

Correct	Incorrect
35	35
x 0.9	x 0.9

1 8 x 3 = .24
2 4 x 6 = .24
3 2.53 x 0.3 = .759
4 3.04 x 0.4 = .1216
5 23 x 1.4 = .0322
6 7.5 x 7.5 = .5625
7 5.96 x 3.8 = 22.648
8 3.57 x 2.4 = 8.568
9 16.4 x 7.5 = 12.3
10 20.3 x 0.06 = 1.218
11 5.05 x 0.02 = .101
12 0.109 x 53.9 = 5.8751

Rule
1 Bring up the decimal point into the quotient.
2 Divide. Add zeros if necessary.

Example: 13.6 ÷ 3.4 → 34)13.6 (4

13 3)66.3 = 22.1
14 28)12.88 = .46
15 16)9.6 = .6
16 52)208 = 40
17 007)14.7 = 2100
18 06)11.82 = 19.7
19 74)0.037 = .005
20 42)55.02 = 13.1

page 35

Plotting a Play

Create a short plot outline for an original play. List the characters you want to put in the play. Set the scene. Then outline the plot of your play.

Title of the Play

List of actors and actresses and their parts:

Scene(s):

Answers will vary.

Outline the plot:

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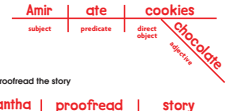
Picturing a Sentence

Diagramming sentences can help you see how the parts of a sentence interact and function.

Here's how to diagram a sentence:

1 Tammy mailed the cards.

2 Amir ate chocolate cookies.



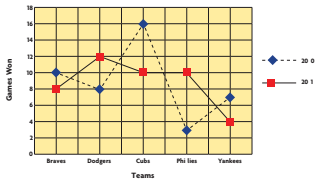
3 Samantha proofread the story.

4 The spotted puppy chased the squirrel.

page 37

Reading a Line Graph

Use the line graph to answer the questions. Circle the letter of the correct answer.



1 Which team had the most consistent record for the two years?
A Phillies (B) Braves C Cubs D Dodgers
2 Which team had the best year in 2010?
A Phillies B Braves (C) Cubs D Dodgers
3 Which two teams won the same number of games in 2011?
(A) Cubs & Phillies B Braves & Phillies C Dodgers & Braves D Dodgers & Cubs
4 Which team had the lowest overall performance?
A Dodgers B Phillies C Braves (D) Yankees
5 Which team's average wins for the two years is 13?
A Yankees B Dodgers C Phillies (D) Cubs
6 Overall in which season were teams most closely matched?
A 2010 (B) 2011 C 2009 D 2008
7 The team that showed the greatest variability between the two years was the
A Cubs B Dodgers (C) Phillies D Braves
8 The greatest number of games won by a team in a single season was
(A) 16 B 12 C 14 D 18

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A Panda for a Pet?

Pandas look so cute and cuddly s tting on a toy store she f Admit it, you just want to take one home, don t you? You don't just want a stuffed one, though A real live black and white panda is what you want Well, you might want to be careful about what you wish for Real giant pandas grow to be about five feet tall An adult panda can we gh more than 300 pounds One of those wouldn t just steal your covers It would take over your entire bed!

Your pet panda would undoubtedly want a bedtime snack These gentle giants love to eat But don t go padlocking your refr gerator just yet Pandas are very particular about their choice of food They like to eat bamboo, a type of plant Occasionally they eat meat, but mostly hey eat lots and lots of bamboo Pandas sit up to eat their food They have thumbs on the r front paws so they can hold the bamboo stalks and munch away In fact, pandas spend about 16 hours a day munching

A l that eating can cause fatigue So, pandas try to get lots of sleep They nap wherever and whenever they get the urge They sometimes nap in trees, and sometimes they find a n ce cool cave for a midday nap

Pandas are favorite animals not only in toy stores, but also in zoos However, giant pandas are extremely rare There are very few pandas either in captiv ty or n the wild Sc ent sts estimate that there are only about 1,000 g ant pandas left n the entire world So, while g ant pandas are furry and fasc nating, it is definitely best to stick w th the toy store var ety Real live pandas belong in their own home the wild bamboo forests found in the h ghlands of China and Tibet

Circ e the letter with the best answer for each question

1 **Which of the fol owing statemen s is a fact?**
A Pandas look cute and cudd y
B Pandas are fasc nating anima s
(C) G ant pandas often grow to be f ve feet tall
D A panda s the best house pet you could possibly buy

2 **Which of the fol owing statements is an opinion?**
A Pandas eat up to 16 hours a day
B The giant panda is black and white
(C) It s real y annoy ng when a panda just les down and fal s as eep
D Pandas somet mes eat meat

3 **Besides a oy store a good place to see a panda would be a**
A pet store
B playground
C school
(D) zoo

4 **Which fact supports the idea that pandas are not ideal pets?**
(A) An adu t panda can weigh more than 300 pounds
B Pandas are favor te anima s n zoos and in toy stores
C Pandas s t up to eat ther f food
D Pandas ook cute and cuddly

5 **What opinion is the author expressing in his selec ion?**
A Pandas are the most fascinat ng animals n the wor d
B A pet panda wou d take over your bed
(C) Pandas are fascinat ng animals but they don t make good pets
D The g ant panda ives n the mountains of China

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Antonym Antics

Read the wo ds listed be ow Then write the opposite of each word Use a dict onary f necessary

	Word	Antonym
1	sunny	cloudy
2	sweet	sour
3	pretty	ugly
4	stop	go
5	open	shut/close
6	loud	soft/quiet
7	fast	slow
8	empty	full
9	sharp	dull
10	enter	exit
11	sm le	frown
12	run	walk
13	below	above
14	quiet	loud
15	always	never
16	rough	smooth
17	large	small
18	rapid	slow
19	sick	well/healthy
20	pull	push
21	found	lost
22	sad	happy
23	stand	sit
24	asleep	awake
25	dirty	clean
26	inhale	exhale
27	expand	contract
28	absence	presence
29	private	public
30	under	over

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It's Highly Probable

Experimental probab lity is based on the outcome of exper ments
Creating a tree diagram is one he pful way to find a probabil ty
A tree diagram is used to show the total number of possible outcomes in an experiment

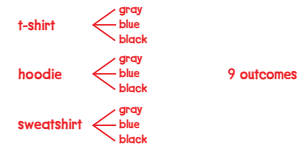
Example: Flipping 2 Coins

There are 4 possible outcomes: HH HT TH TT

Create tree d agrams to solve the outcomes for each prob em

1 **Choosing cheese or pepperoni pizza and soda or lemonade**

2 **Choosing a t shirt hood e or sweatshirt in gray blue or black**



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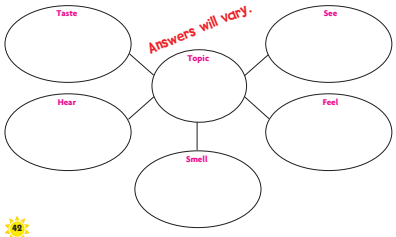
Descriptive Writing

Descript ve wr ting uses very prec se words to paint a p cture so that the reader sees exactly what you describe The writer uses the five senses to create strong imagery

Select one of the top cs be ow and read the questions related to it Use the graphic o gan zer to bra nsto m descr ptive words and phrases about the top c you chose Then write a paragraph about the topic using at least f ve of the words or phrases you bra nstormed

An O l Spi l Where is it? How large is it? What damage has t done?	**An Approaching S orm** What k nd of sto m? What do you see? What do you hear?
A Family Tradition How many generations? What occasion is t? What is the tradit on?	**An Overnight Campout** Where are you? What do you see? What do you smell?



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Coral Crisis

If you want to see a lot of f sh, then go to a coral reef Thousands of species of ocean fish and animals, like lobsters and squid, st ck close to coral reefs These are stony structures full of dark hideaways where f sh can lay their eggs and escape from predators Without these underwater "apartment houses," there would be fewer fish n the ocean Some species might even become endangered or disappear completely

What some people don t realize is that reefs are living be ngs, too They are made of thousands of tiny animals ca led polyps These polyps soak seawater into their squishy bodies They use the nutr ents n the seawater to make stony tubes that fit around the r bodies These tubes protect the polyps and grow to make coral

There are thousands of reefs in the world Sadly, though, they are now in serious danger More than one th rd are in such bad shape that they could die within ten years Many might not even last that long!

Scientists are working hard to find out how to help stop th s destruction There s a lot to learn, but there are some hings we do know

Pollution

Pollution on land runs nto rivers and streams, which carry the poisons into the ocean Chemicals from pollution k ll coral They may also make polyps weak, so they have less resistance to diseases Also, fertilizer from farms causes seaweed to grow w ldly, chok ng polyps

Global Warming

Global warming is an overall increase in Earth's temperature High water temperatures kill the greenish gold algae, or t ny water plants, that live on coral Coral gets food from the algae Without t, the coral loses its color and eventually dies This process, known as "coral bleaching," is becoming more frequent Many sc entists bel eve global warming is to blame

People

People sometimes ram into reefs with their boats or drop anchors on hem, breaking off large chunks of coral Divers who wa k on reefs can also do major damage Since coral s so colorful and pre ty, some people even break it off to collect for souvenirs

A Solution

How can we help the reefs? We can learn more about them! We need to find out what humans do that damages reefs so we can change those activi es We can work together to make sure that coral reefs will be healthy and beautiful in the future

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Circle the etter w th the best response to each question or statement

1 **Which sentence does not support the conclusion that reefs are important to ocean life?**
A Fish ay their eggs on reefs
B Fish h de in the reefs to escape their predators
(C) Coral reefs can be seen from the a r in very clear water
D Without coral reefs there would be fewer fish in the ocean

2 **Based on the information in the article which of the ollowing conclusions can be drawn?**
A Farms are the coral reefs worst enem es
B There s no so ution to the coral reef prob em
C Some people col ect pieces of coral for souven rs
(D) People need to understand what endangers the coral reefs if they are to be saved

3 **Scientists believe the coral reefs are in danger from**
A ocean an mals l ke obster and squid
B g eenish gold algae
C too many fish eggs hatching n them
(D) higher water temperatures caused by global warming

4 **When a coral reef oses its color**
(A) It eventua ly d es
B It is thrown away
C It is eaten by obsters
D It can t eat algae

5 **How does land pollut on get into the ocean?**
A Beach sand gets into the ocean
B Seaweed grows wild y
C A gae contra ns po lut on from the land
(D) Streams and rivers carry po lut on from the land nto the ocean

6 **Coral reefs are**
A nutrients in the seawater
B p oduce water plants called a gae
(C) living anima s ca led polyps
D highly resistant to disease

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Latin Prefixes and Roots

The Latin root ***pose*** means to put forth a suggestion or to put or place someth ng down Below are eight prefixes and e ght defin tions of modern Eng ish words w th the root ***pose*** Read each def nit on Then choose the p efix needed to create the word that matches each definit on Use a dictionary as needed

com de dis ex im pro re trans

1 **to get rid of; to put out of he way** ___dis___ pose
2 **to remove from office or power** ___de___ pose
3 **to put something together** ___com___ pose
4 **to l e at rest** ___re___ pose
5 **to place a burden on someone; to force yourse f on someone** ___im___ pose
6 **to put an idea forward for considerat on** ___pro___ pose
7 **to put out in an unprotected place** ___ex___ pose
8 **to move from one place to another; to change the normal position of** ___trans___ pose

The Latin root ***duc us*** means lead or leading The missing word in each sentence below contains some form of the root plus one of the pref xes

ab de pro re

9 **Desp te the huge** ___reduction___ **in cost the price was st ll beyond his budget**
10 **Even after we challenged the charge the server refused to** ___deduct___ **it rom our bill**
11 **The new model car w ll be in** ___production___ **by next spr ng**
12 **As a prank the seniors** ___abducted___ **the school mascot and placed t in the gym**

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Comparing and Ordering Integers

Integers *are all the positive and negative whole numbers and zero*

- *Zero is neither positive nor negative*
- *Positive integers are usua ly written without a sign and occur to the right of zero on a number line*
- *The number line to the left of zero contains* **negative** *integers and negative numbers are always written with a sign*
- *For any two numbers on a hor zontal number line the integer farther to the right has the greater value*

You can use the number line above to comp ete the following exercises

Use the symbo s > or < to compare each pair of numbers

1 4 ___>___ 2
2 3 ___<___ 0
3 3 ___>___ 0
4 5 ___<___ 5
5 9 ___>___ 10
6 8 ___<___ 4
7 8 ___>___ 10
8 0 ___>___ 8
9 374 ___<___ 0
10 410 ___<___ 198

List the integers below in order from east to greatest

11 3 5 2 4 0 ___-5, -2, 0, 3, 4___
12 0 7 3 9 1 ___-9, -7, -3, 0, 1___
13 8 8 4 2 5 ___-8, -4, 2, 5, 8___
14 6 1 7 3 2 ___-7, -2, 1, 3, 6___
15 3 8 8 3 ___-8, -3, 3, 8___
16 1 2 2 ___-2, -1, 2___
17 6 5 2 3 2 ___-6, -3, -2, 2, 5___
18 8 2 3 0 ___-8, -3, -2, 0___
19 0 5 3 7 ___-7, -3, 0, 5___
20 3 5 0 ___-5, -3, 0___

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Punctuation Pointers

Punctuat on marks include commas semicolons colons apostrophes quotation marks and various end marks (periods question marks and exclamation po nts)

Add the missing punctuation marks to each sentence Remember to place periods and commas **inside** c os ng quotat on marks The number n parentheses te ls you how many marks of punctuat on are missing n each sentence

1 **(1) Where did you and your family vacation this summer?**
2 **(4) The Phill es Red Sox Braves and Astros a l won games last week.**
3 **(3) Canada's biggest c ty is Montreal but Ottawa is its cap tal.**
4 **(4) What happened at Lexington Massachusetts on Apr l 19 1775?**
5 **(7) Chicken pox the doctor said is a contagious disease.**
6 **(4) Mom shouted 'Bring your cleats!'**
7 **(2) Jeremy will order pizza and salad and Carmen wi l probably get Chinese food.**
8 **(3) Robert Lou s Stevenson wrote *Treasure Island Kidnapped* and *David Balfour*.**
9 **(1) Jose played soccer but not tenn s.**
10 **(2) When Jane began to read she read *was* as *saws*.**
11 **(2) My mother is from Portland Oregon.**
12 **(4) Deacon asked 'Was your ankle surgery a success?'**
13 **(2) Evandale's choir performed a t afternoon at Sheridan Park.**
14 **(4) 'That was the best book I have ever read' said Josh.**
15 **(4) Youll recogn ze Sad e by her red hair green eyes and freckles.**

What Are Context Clues?

If you are not sure what a word means **context clues** can he p you Using context clues means using the words or sentences around the word to figure it out Sometimes a word s definition becomes c earer after read ng the entire sentence or ent re paragraph where the word appears

Use context c ues to dec pher the meaning of the word that is underl ned

1 **Hurricanes and tornadoes are treacherous Only a very fool sh person would actua ly go out during that k nd of weather**
A safe (B) dangerous C fa thful D delectable

2 **Lakes occupy ess than two percent of the Earth's surface yet they help sustain life For examp e lakes provide us fish to eat rrigate crops and produce electrical power**
(A) support B hinder C delay D destroy

3 **I am really hungry! That banana did not appease my hunger I want a sandwich now**
A confound B aggravate C mu tiply (D) satisfy

4 **Some people th nk that discuss ng the dangers of cigarette smoking obscures the real concern They bel eve the real issue is that smokers are discriminated aga nst**
(A) to hide conceal B to confront C to make obvious D to shorten

5 **The anc ent Greeks pioneered many of the kinds of wri ng we consider standard today**
A complicated (B) developed C damaged D erased

6 **The ship vanished during the hurricane No survivors from the lost sh p have ever been found**
A arrived B departed C returned (D) disappeared

7 **Th s new virus has really sapped Susan's energy She becomes tired just walking across the room I hope she s better soon**
A increased B make s ow (C) drained D enhanced

8 **Fifty f ve prominent delegates at ended the Ph ladelphia Convent on in 1787 Some de egates had served n Congress wh le others were mportant people in their home states These men are often referred to as the Framers of the Consti ution**
A unimportant B unknown C common (D) mportant

My Hero

Se ect a famous person from one of the following categories: Histor cal Hero Legendary Hero Superhe o Modern Hero or Everyday Hero List some quest ons that you wou d l ke to know about your hero Once you ve researched your subject l st some of the physical and moral qual ties that the person possesses

1 **Who is your hero?**_____

2 **For what is your hero known? What does or did he or she do in l fe?**_____

3 **What special qualit es does your hero possess?**_____

Answers will vary.

4 **Wr te a short paragraph that explains why you be ieve th s person is a hero**

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Fractions and Percents

So ve each wo d prob em below W ite your answer in the space provided

1 **Ten friends attended Sandra's b rthday party Six brought gifts Express this as a fract on in lowest terms**
$\frac{3}{5}$

2 **Deacon correctly answered 45 of the 50 questions on h s summer school math test What percent of the questions did Deacon answer correct y?**
90%

3 **On the same math test Carla received an 80% score on her test What raction of the questions did she correct y answer?**
$\frac{4}{5}$

4 **The band at Turner Midd e School lost 20% of its 230 band members from last year How many band members are left?**
184

5 **At summer camp the girls ordered 9 pizzas and 4 of them were pepperoni pizzas What fract on of the pizzas were pepperoni?**
$\frac{4}{9}$

6 **Mrs Lang ey is planning a field trip for her swimming teams She needs 6 chaperones for every 50 girls If she has 150 g rls how many chaperones wi l she need?**
18

7 **Sasha sold 28 dresses over the weekend at her yard sale This was 30% of all he dresses in her closet How many dresses did she have in her closet?**
93

8 **The garden club members had 250 tickets to sell to their benefit They sold a total of 179 What percent of ticke s did they sell?**
72%

Traveling the United States

Use the map of the United States to answer the questions below

1 **Which state is directly north of North Carolina?** Virginia
2 **Which states share the southern border of New York?** Pennsylvania, New Jersey
4 **Which states border Mexico?** California, Arizona, New Mexico, Texas
6 **Which New England state does not have a seacoast?** Vermont
8 **Which state is southeast of Alabama?** Florida
9 **Which states share a border with Montana?** Idaho, Wyoming, North Dakota, South Dakota
10 **Which states share the border of Texas?** New Mexico, Oklahoma, Arkansas, Louisiana
11 **Name the three states that border Louisiana** Texas, Arkansas, Mississippi
12 **Which states are d rectly west of Idaho?** Oregon, Washington

Adding Integers

Here are some rules for adding integers

- *The sum of any two positive integers s a positive nteger*
  Example: *3 + 5 8*
- *The sum of any two negative integers is a negat ve integer*
  Example: *3 + (5) 8*
- *The sum of two integers with opposite signs is found by subtract ng the digit of lesser value from the integer of greater value and keeping the sign of the greater*
  Examples: *5 + (3) 2 5 + 3 2*

So ve the fo low ng problems You can use the number ine to he p you Beg n at the first number and move **eft** if the next number s negat ve or **right** f it s posit ve

1 3 + (5) = -8
2 8 + 0 = 8
3 5 + (2) = -7
4 3 + 0 = -3
5 6 + (4) = 2
6 3 + (3) = 0
7 8 + (2) = -10
8 0 + 9 = 9
9 0 + (6) = -6
10 3 + (7) = -10
11 +10 + (10) + 6 = 6
12 3 + 6 + (2) + (1) = 0
13 2 + 5 + (1) + 2 = 4
14 7 + (3) + 5 + (1) = -6
15 4 + 0 + (7) + (4) = -7
16 3 +(3) + 0 + 3 + 3 = 0
17 5 + 6 + (9) + (2) = 0
18 7 + (1) + (2) + 3 = 7
19 1 + 5 + (4) + (6) = -6
20 9 + (2) + 3 + (4) = 6

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Attack on the Titanic

Read the passage As you read try to identify causes and effects

On the cold, dark night of April 14, 1912, more than 2,000 peop e sa led across the Atlantic on a giant cruise ship cal ed the R M S *Titanic* With hardly any warning, the ship scraped a massive iceberg As water rushed into the ship, passengers scrambled to board lifeboats When the ship sank three hours later, more than 1,500 people died

The world s most famous sh pwreck lay undisturbed until 1985 That year, oceanographer Robert Ballard and his crew discovered the *Titanic* s resting place deep in the North Atlantic Harsh ocean conditions had caused the ship to corrode, and the crew suspected the damage would get worse over time

Exactly how much has the ship corroded since its discovery? And why? In June 2004, Ballard led a team of sc entists back to the *Titanic* to find out

The *Titanic* was supposed to sa l from Southampton England to New York City

Dangers of the Deep

Titanic lies in the abyssal zone, a part of the ocean about 2 5 miles below the sur ace Because the condit ons in this zone are so harsh, ew creatures ive here No light makes it to the sea floor, and temperatures hover around a chilly 35 degrees Fahrenheit

The conditions in this zone also make it tough for a shipwreck Accord ng to Dwight Coleman, a sc entist and member of Ballard s crew, because the pressure of the water here is so strong, it s pushing *Titanic* into the ocean floor It s like there s an elephant stand ng on every square inch, he said

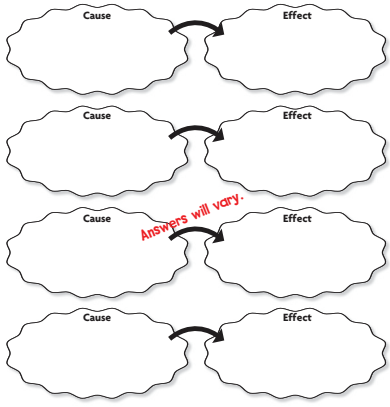
The high leve s of salt in the ocean also play a role in the ship s breakdown Much of the *Titanic* s made from iron When iron is placed in water, it will corrode over time However, when salt is present in the water, that results in the metal corroding a lot faster

Human visitors cause damage too Markings show that submersibles have landed on the ship s deck, causing it to break

And more than 6,000 artifacts, like coins and silverware, have been removed

Cause and Effect

Reread Attack on the *T tanic* Complete the graph c organizer to show the causes and effects of the shipwreck s breakdown



Answers will vary.

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Four Kinds of Sentences

A **declarative** *sentence makes a statement It ends w th a period*
Example: Thomas Edison made the f rst lightbulb
An **interrogative** *sentence asks a quest on It ends with a question mark (?)*
Example: Is Alaska the largest state n the United States?
An **imperative** *sentence expresses a command or request It usually ends in a period*
Example: Please mail th s package for me
An **exclamatory** *sentence expresses strong or sudden feelings It s followed by an exclamation point (!)*
Example: I made a perfect score on the test!

On the line dentify each sentence be ow by writing **D** for dec arat ve **IM** for imperative **IN** for interrogative and **E** for exclamatory Add the proper punctuation mark at the end of the sentence

D 1 My family and I visited Alaska this summer.
IN 2 Is Alaska larger in square miles than Texas?
IN 3 Did you know that the highest mounta n in North America is in Alaska?
D 4 Alaska is home to many nat ve Americans.
D 5 Russians went to Alaska looking for the furs.
D 6 Americans went o Alaska to ook for gold.
D 7 S zeable amounts of "black gold" were discovered in Alaska in 1968.
IN 8 Actually what s "black gold"?
D 9 "Black gold" is another name for o l.
IM 10 Don't go to Alaska w thout some warm c othing.
E 11 Watch out for the wild bear behind you!
D 12 We'd ike to hear more about your trip.

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Subtracting Integers

Here are some rules for subtracting integers

- *A positive integer subtracted from a larger pos t ve integer remains a positive integer*
  Example: 5 3 2
- *When subtracting a pos t ve nteger from another positive integer of lesser value the difference is always a negative nteger*
  Example: 5 7 2
- *When subtracting a negat ve integer from either a positive or a negat ve nteger first change the two negative signs to a positive sign and then solve*
  Examples: 5 (3) ⟶ 5 + 3 8
  5 (3) ⟶ 5 + 3 2
- *A positive integer subtracted from a negat ve integer will result in a negative integer*
  Example: 5 3 ⟶ 5 + (3) 8

Solve the following problems You can use the number l ne to help you

1 10 17 = -7
2 5 5 = -10
3 8 13 = -5
4 8 (13) = 5
5 5 (12) = 7
6 10 (10) = 0
7 5 8 = -3
8 8 (2) = 10
9 6 (3) = 9
10 4 (6) = 10
11 9 (4) = -5
12 7 (8) = 1
13 10 7 = 3
14 7 0 = -7

Complete the fo low ng problems w thout using the number ine

15 21 9 = -30
16 10 6 = -16
17 16 (16) = 32
18 11 13 = -24

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Grab Some Interest

You can often expand a s mple paragraph in a story article essay report or whatever you are writing and make it more nteresting by

- *combining short choppy sentences*
- *adding details to help create a picture mood or fee ng*
- *replacing dull overused or inexact nouns verbs and adject ves*
- *changing the order of words n sentences*
- *adding words or phrases such as also first meanwhile in fact however eventually and in the end to connect ideas or events*

Expand and ewrite each of the paragraphs using some of the suggest ons above

It was dusk The snow began to fall I was surprised It was the end of April Snow s unusual then The temperature had fal en That was earlier Clouds began mov ng in I knew a s orm was coming Would it be a snowstorm? I woke up the next morning Snow covered the ground There would be no baseball practice today!

Something smelled good We had just passed the bakery We looked at each other We smiled We headed back to the bakery Maggie opened the door We went nside What a sight There were all k nds of good es There were breads and ro ls Some were just out of the oven I went from case to case Everything looked and sme led good It was a hard decision Finally I chose

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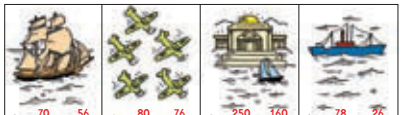
The Mysterious Fraction Zone

We come to the Mysterious Fraction Zone where every fraction is equ valent to an unexplained mystery! Match the fract on under each picture to the two equ valent f act ons n the Fact Bank These facts reveal a mystery



1/3	70/210	56/168	4/5	80/100	76/95	1/2	250/500	160/320	2/7	78/273	26/91

Fact Bank

250/500 In 335 B C Plato wrote about an anc ent empire A lant s hat a ter a day and night of rain sank to the bot om of he ocean

80/100 Five Avenger to pedo bombers in perfect wo k ng order eft Fort Lauderdale Naval A r Sta ion with full oads of fuel on a c ear day

160/320 Underwa er expedi ions in the Bermuda Triang e have uncovered stone heads carved pillars and py amids be ieved to be part of he lost civilization of A lantis

78/273 The USS Cyclops a 19 600 ton Navy boat left the West ind es bound or Norfolk V rg nia but t never arrived

76/95 Several hou s after akeoff he Avengers radioed the control tower say ng that every h ng was s range and hey were not sure of their directions then s lence

70/210 The Mary Ce e e a 103 foot long ship was found per ectly intact and abandoned at sea There was no s gn of bad weather or foul play

26/91 The navy boat and its 309 crew members d sappeared wi hout a trace in to r weather without send ng an SOS

56/168 What myste ious event would lead Captain Br ggs his wi e his daughter and e ght crew members to eave their sh p wi h a meal s ill on the ab e?

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Choose Your Words—Correctly!

Doesn t *s the contraction for* **does not**
It is used with singular nouns and pronouns
Don t *s the contraction for* **do not**
It is used with plural nouns and pronouns

Use **may** *to ask for permission* **Example: May** I use this towel at the *swimming* pool?
Use **can** *to express the ability to do something* **Example:** Roger **can** certainly swim well

Teach *means to give instruct on* **Example:** I will **teach** you how to swim
Learn *means to acquire knowledge* **Example:** Did you **learn** to speak Spanish in Mexico?

Sit *means to take a rest ng position Other forms of this verb are* sitting *and* sat
Set *means to place The pr nc pal parts are* set setting *and* set

Lie *means to rec ine or to occupy a certain space Forms that use this meaning are* l e ying lay *and* lain
Lay *means to place Forms that use this mean ng are* lay laying *and* laid

Underl ne the correct word cho ce to comp ete each sentence

1 P ease (set sit) the gifts on the tab e
2 W ll you (teach learn) me to play ennis?
3 Where have you (la n laid) the community summer newsletter?
4 Carlos wi l you p ease (sit set) yourself down on the sofa?
5 Mrs Long (may can) I f nish my composition tomorrow?
6 My sister is going o (teach learn) to cook spaghetti from a chef
7 Some of the elevators n the build ng (doesn t don't) go to the penthouse
8 (Doesn't Don't) this glass ray belong to your grandmother?
9 Mark where did you (lie lay) my car keys?
10 Mrs Marcus said "Class please (sit set) down now!"
11 P ease do not (ie lay) on hat new rug n the foyer
12 Eliot (may can) you repair my bicycle tire?

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Multiplying Positive & Negative Integers

Here are some rules to multiply integers

- *The product of two positive* **or** *two negative integers is* **positive**
  Examples: 3 x 4 12 3 x 4 12
- *The product of a positive* **and** *a negative nteger is* **negative**
  Examples: 3 x 4 12 3 x 4 12

Study the equations below Write the ru e that app ies to the equation on the ine The first one s done for you

1 3 x (4) = 12 negative x negative = positive
2 3 x 4 = 12 negative x positive = negative
3 3 x 1 = 3 negative x positive = negative
4 3 x 1 = 3 positive x positive = positive
5 3 x (4) = 12 positive x negative = negative

Solve the equat ons be ow Refer to the rules above if necessary

6 20 x 12 = 240
7 16 (5) = -80
8 20 x (4) = -80
9 11 x (9) = -99
10 5 x 15 = -75
11 10 x (5) = 50
12 8 x 6 = 48
13 20 (2) = 40
14 15 x (10) = 150
15 5 x 0 = 0
16 3 x 5 = 15
17 3 x (5) = -15
18 3 x 5 = -15
19 3 x (5) = 15
20 3 x 0 = 0

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Spelling Demons

Look carefu y at the three words n each group below If a word s misspe led c rcle it and spell it correctly on the l ne If all three words are spelled correct y write **C**

1	be ittle	detach	(impossible)	impossible
2	cab net	(irresistable)	div s on	irresistible
3	centigram	(efic ent)	kn ves	efficient
4	autumn	deny	(imaginery)	imaginary
5	a uminum	crutch	fool sh	C
6	b ouse	(disaprove)	innocent	disapprove
7	(civila n)	enormous	larynx	civilian
8	(a orney)	delicate	honorary	attorney
9	character	election	lacquer	C
10	cement	(edable)	knead	edible
11	camouflage	earnest	l brary	C
12	baub e	(des enation)	import	destination
13	advantage	conscience	expert	C
14	associate	defeat	(goverment)	government
15	(bachellor)	descent	im tate	bachelor

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Dividing Integers

Here are some rules for dividing integers

- *Divide as you would with whole numbers The quotient of two positive or two negative integers is* **posit ve**
  Examples: 12 ÷ 3 4 12 ÷ 3 4
- *Divide as you would with whole numbers The quotient of a positive nteger* **and** *a negative integer is* **negative**
  Examples: 12 ÷ 3 4 12 ÷ (3) 4

Study the equations below Write the ru e that app ies to the equation on the ine The first one s done for you

1 15 ÷ 3 = 5 negative ÷ negative = positive
2 15 ÷ 3 = 5 negative ÷ positive = negative
3 15 ÷ 3 = 5 positive ÷ negative = negative
4 15 ÷ 3 = 5 positive ÷ positive = positive
5 9 ÷ 3 = 3 negative ÷ negative = positive

Solve the equations be ow Refer to the rules above if necessary

6 56 ÷ (14) = -4
7 72 ÷ (4) = -18
8 40 ÷ (4) = 10
9 87 ÷ 3 = -29
10 12 ÷ (4) = -3
11 0 ÷ (2) = 0
12 15 ÷ 3 = 5
13 48 ÷ (6) = 8
14 16 ÷ 4 = -4
15 6 ÷ 0 = 0
16 45 ÷ (5) = 9
17 2 ÷ 0 = 0
18 20 ÷ (4) = 5
19 81 ÷ 9 = 9
20 25 ÷ 5 = -5

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What's the Big Idea?

To get the most out of what you are reading you need to be able to identify the main idea being expressed The main idea is the **core of the story** or passage It is the message the wr ter wants you to remember As you read the passage think about the most important points

In the mountains of southern Tha land in November of 1988, 4 inches (10 cm) of ra n fell in five days, causing widespread flooding which extended over the whole Tapi River basin Massive mudslides tore down mountainsides in the early hours of August 11, uprooting thousands of cut logs, and burying seven villages under water and mud At least 350 people d ed, and over 1,000 people were made homeless

This disaster caused a public uproar Many people believed that heavy logging caused deforestat on, soil erosion, and water runoff, which resulted in the catastrophe As a result of public pressure, the Thai government n January of 1989 banned all commercial logging in the country Before the ban, Thai officials studied sate lite photographs that showed the country's forest cover had declined from 29 percent in 1985 to 19 percent in 1988 At this rate of deforestation, Thailand would have lost about half of ts forest by 2022

Thai timber companies, infur ated by the ban, forced the government to compensate them for the r timber losses Then, companies started logging operations over the border in Cambodia, Laos, and Myanmar The logs were transported back over the border nto Thailand and increased the cost of wood in Tha land

Even hough the ban on logging was an important step in preserv ng Tha land's forest resources, other threats remained Rural villagers today st ll harvest forest products for their own use In many regions of Thailand, it is common for farmers to clear and burn forests to cu tivate the r land The Thai government's former policies of allowing landless people to settle on logged forest reserves poses yet another threat Today in Tha land, approximately f ve mi lion people inhab t forest reserves

What is the ma n idea of each paragraph n this passage?

F rst Paragraph: _____

Second Paragraph: _____

Third Paragraph: Answers will vary.

Fourth Paragraph: _____

What is the ma n idea of the passage as a who e? _____

page 67

Stretch Your Brain

How many of the following trivia statements can you complete in ten minutes? Use a variety of resources for your research.

1. Number of rings on the Olympic flag: 5
2. Number of sheets in a ream of paper: 500
3. The number of players on a soccer team: 11
4. Amnesia causes one to lose his or her memory
5. Robinson Crusoe meets only one other person on the deserted island. He called him Friday
6. These animals eat both plants and animals: omnivores
7. The tallest mountain in the United States is located in the state of Alaska
8. The largest planet in our solar system is Jupiter
9. A common marsupial found in the U.S. is the opposum
10. The number of notes in an octave is 8
11. Musicians have a special instrument that they use to beat time called a metronome
12. Name the U.S. president who served the most years in office: Franklin D. Roosevelt
13. Sailors and other travelers have always followed this star: the North star
14. The number of leaves that makes a clover lucky is 4
15. The red planet named for the Roman god of war is Mars

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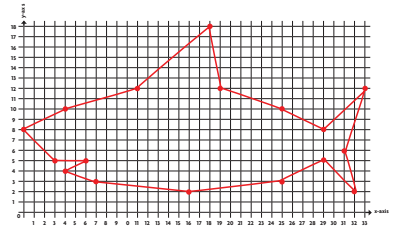
Picture This!

Mark off the following points. As you mark each point, draw a line to connect it to the previous point. When you're done, the connected dots will make a picture. What is it?

a (4, 4)
b (7, 3)
c (16, 2)
d (25, 3)
e (29, 5)
f (32, 2)
g (31, 6)
h (33, 12)
i (29, 8)
j (25, 10)
k (19, 12)
l (18, 18)
m (11, 12)
n (4, 10)
o (0, 8)
p (3, 5)
q (6, 5)
r (4, 4)



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Delicious Directions

Read the directions below.

Easy-Bake Caramel Corn

Ingredients

2 sticks of butter or margarine
2 cups firmly packed light brown sugar
½ cup light corn syrup
1 teaspoon salt
½ teaspoon baking soda
1 teaspoon vanilla
6 quarts popped corn

DIRECTIONS: Melt the butter or margarine over low heat in a saucepan. Stir in brown sugar, corn syrup, and salt. Bring to a boil, stirring constantly. Then boil without stirring for 5 minutes. Remove from the heat and stir in baking soda and vanilla. Gradually pour over popped corn and mix well. Turn into two large shallow baking pans. Spread corn out evenly. Bake in a preheated 225°F oven for 30 minutes. Make sure to stir and turn every 10 minutes as with a large metal spatula. Remove from oven and immediately dump onto waxed paper. Cool and break into chunks. Store in a tightly covered container.

Read the questions carefully. Circle the best answer.

1. How many ingredients do you need to prepare Easy Bake Caramel Corn?
   A. 5 B. 6 (C.) 7 D. 8
2. When making Easy Bake Caramel Corn, the first step is to
   A. stir in the brown sugar
   (B.) melt butter or margarine
   C. spread corn out evenly
   D. boil water
3. Once all the ingredients are added, bake in a preheated oven for
   A. 5 minutes
   B. 10 minutes
   C. 20 minutes
   (D.) 30 minutes
4. After the ingredients are baking, you should turn the Easy Bake Caramel Corn every
   A. 5 minutes
   (B.) 10 minutes
   C. 20 minutes
   D. 30 minutes
5. What are the last two ingredients added to the saucepan?
   A. baking soda and butter
   B. brown sugar and salt
   (C.) baking soda and vanilla
   D. none of these

page 72

Spotting Gerunds

Every **gerund** *without exception ends in* **ing**. *Gerunds are not, however, all that easy to identify. The problem is that some forms of verbs also end in* **ing**. *But gerunds function as* **nouns**. *Therefore, gerunds can be* **subjects, subject complements (predicate nominatives), direct objects, indirect objects,** *and* **objects of prepositions.**

Examples: Hiking is difficult on these steep hills. (subject)
My favorite pastime is drawing floor plans. (predicate nominative or subject complement)
Corey loves eating potato chips. (direct object)
The girls complained of hearing strange sounds from the woods. (object of a preposition)

Note: Gerunds can be followed or preceded by possessive pronouns **(my, his, her, our, their, its)** *or other possessives.*
Examples: My cooking is famous in New Orleans. Greg's driving scares me.

In each sentence, underline every **gerund phrase**. Circle each **gerund**. The first one is done for you.

1. (Watching) an airplane take off is very exciting.
2. (Studying) art also taught Alicia about history.
3. Her main goal is (improving) her brush strokes.
4. The criminals denied (stealing) any thing.
5. (Brushing) your teeth twice daily is what a dentist recommends.

Underline each gerund or gerund phrase in the sentences below. On the blank, write how the gerund is used. Use **S** for subject, **PN** for predicate nominative (subject complement), **DO** for direct object, or **OP** for object of preposition.

S 6. Having studied Spanish helped us on our trip to Lima, Peru.
DO 7. Cesar preferred watching the soccer games in Lima.
PN 8. Mark's goal this year is selling at least four more houses.
OP 9. He should be happy with selling two more houses.
S 10. Collecting clothes for charity gives my sister great satisfaction.

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To Infinitive and Beyond!

An **infinitive** *is a verb form that usually begins with the word* **to** *and acts as a noun, an adjective, or an adverb.*

Examples: To study a lot will increase your chances of making better grades. (as a noun)
Her plan to study hard was appreciated by her father. (as an adjective)
To study effectively, Gracie will learn good habits. (as an adverb)

To determine if a phrase is an **infinitive** *or a prepositional phrase, look at the word after to. If the word is a verb, the phrase is an infinitive. If the word is a noun, pronoun, or modifier, the phrase is a prepositional phrase.*

Examples: Michael is going to the grocery store. (prepositional phrase)
Does Angela want to go with him? (infinitive phrase)

In each sentence below, underline the infinitive.

1. To sleep is the only thing Jerrold wants after work.
2. Wherever Samantha goes, she always brings a book to read.
3. We want to visit all of the historic sites in Barcelona.
4. Mrs. Green's children like to go to the park zoo.
5. Mrs. Burns stopped the car to check the tires.
6. To hit a home run is the dream of every baseball player.

Use each of the following infinitive phrases in a sentence.

7. to read _____
8. to arrive on time _____
9. to thank everyone _____
10. to make dinner _____
11. to chew his food slowly _____
12. to think about the problem _____

Answers will vary.

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Word Problems With Integers

Solve each problem. Show your work and draw a box around your answer.

1. A scuba diver is 72 feet below sea level. As the diver rises, he stops every 15 feet. What integer tells his depth at the first pause?
   -57 feet -72 + 15 = -57

2. The temperature in Atlanta on the coldest night of the year was 9° F at 10:00 PM and had dropped to 2° F by 7:00 AM. How many degrees did the temperature drop?
   11° x = 9° - (-2°); x = 9° + 2°; x = 11°
3. Tonya invested in a stock that she had researched. In the first 5 business days she owned the stock, it dropped 10 points (-10). What was the average loss per day?
   -2 points per day -10 ÷ 5 = -2
4. John's scores for a weekend where he played 4 rounds of golf were +3, -2, +3, and -2. If par is represented as a score of 0, how far above or below 0 is his 4 round score?
   2 above par 3 + (-2) + 3 + (-2) = 2
5. In the Sutton Middle School Academic Bowl, Lia scored 100 points on the first question. On the next question she lost 200 points. What was her final score?
   -100 100 – 200 = -100
6. During last week's football game, Freddy ran with the ball six times. On three of the runs he gained 5 yards each. However, he lost 4 yards on each of the other three runs. Overall, did Freddy gain or lose yards? How many?
   gained 3 yards
   x = (5 x 3) + (-4 x 3)
   x = 15 + (-12) x = 3

page 75

An Embarrassing Situation

We all have faced an embarrassing situation at one time or another. In this essay, tell about a time when you were completely embarrassed. What do you recall had taken place that made you feel this way? Tell what you did to deal with the situation. Finally, do you think that you handled the situation in the best way? Why or why not?

Answers will vary.

page 76

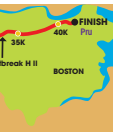
The Marathon

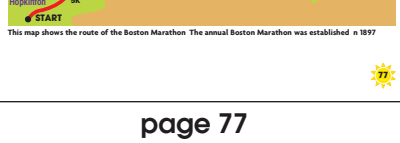
The marathon was not an event in ancient Olympic Games. In fact, it was not until the first modern, international Olympic Games, which were held in Athens, Greece, in 1896 that the event would be run. This marathon would serve to honor the Greek hero Pheidippides by re-creating his 25 mile run from Marathon to Athens.

Twenty five young men started running toward Athens on the morning of April 10, 1896. 10,000 excited spectators waited for them in the Parthenon Stadium in Athens. Many thousands of Greek citizens lined the road from Marathon to Athens encouraging the runners and honoring their ancient hero. A young shepherd from Marathon, Spiridon Louis, won the race. The marathon run is now an established event in every Olympic Games.

The original 25 miles from Marathon to Athens was changed to 26 miles 385 yards for the 1908 run and remains the same today. Other marathon races are held throughout the world. The most famous marathon in the United States is the Boston Marathon. It follows a route from its start at Hopkinton to the finish at Prudential, a total of 26.2 miles.

The marathon is a long endurance race; in fact, it is at least twice as long in distance and time as other popular races. As you can imagine, the race is both physically and psychologically demanding.





This map shows the route of the Boston Marathon. The annual Boston Marathon was established in 1897.

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Use with page 77
Week 6 • Day 4
Reading for Meaning

Use the passage and the map on page 77 to answer the following questions.

1. In the Boston Marathon, Heartbreak Hill is located between what kilometers?
   between 30K and 35K
2. The winner of the Olympic Marathon of 1896 was Spiridon Louis
3. Where does the Boston Marathon begin and where does it end? It begins in Hopkinton and ends in Pru.
4. Why was the marathon introduced in the 1896 Olympics? It was a re-creation of the 25-mile run made by the Greek hero Pheidippides from Marathon to Athens.
5. When was the Boston Marathon established? in 1897
6. How long is the modern day Olympic Marathon? 26 miles 385 yards
7. How long is the Boston Marathon? 26.2 miles
8. Why is a marathon such a demanding event or athletes? Answers will vary, but should state that it is a very long race that requires great endurance.

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Week 6 • Day 5
Order of Operations

Please Excuse My Dear Aunt Sally

The mnemonic "Please Excuse My Dear Aunt Sally" is a helpful way to remember the order of operations in math problems.

Here's how it works:

Please is for parentheses	First, calculate inside the parentheses
Excuse is for exponents	Second, find the value of terms with exponents
My Dear is for multiplication or division	Third, multiply or divide
Aunt Sally is for addition or subtraction	Last, add or subtract

Example: $3^2 \times (4 + 3) + 6 \div 3$

1) Work inside parentheses first
2) Next, simplify any terms with exponents
3) Multiply and divide from left to right
4) Add and subtract from left to right

Example:
$3^2 \times (4 + 3) + 6 \div 3$
$3^2 \times 7 + 6 \div 3$
$9 \times 7 + 6 \div 3$
$63 \div 2$
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Solve the following problems.

1. $4 (15 + 18) - 112$ = 20
2. $6^2 + 24 - 7 \times 3$ = 39
3. $(7 \times 8) - (4 \times 9)$ = 20
4. $7 + 9 \div 3$ = 10
5. $15 \div 3 + 16 \div 4$ = 9
6. $2 + (3 + 4) + 2^3$ = 17
7. $8^2 \div 4 - 2 \times 8$ = 0
8. $(12 - 3^2) \times 4 + 2$ = 14
9. $24 \div (2 \times 6) + 6$ = 8
10. $3 \times 4^2 \div (12 - 4)$ = 6
11. $5 - 9 \div 3$ = 2
12. $28 \div (4 + 3) \times 9$ = 36
13. $84 \div (8 + 6) \div 3$ = 2
14. $3 \times (5 \times 4)$ = 60
15. $55 \times 1 + 10 - 5$ = 60
16. $(40 \div 8) \times 3$ = 15
17. $25 \div 5 + 12 \div 4$ = 8
18. $3^4 + (2^2 + 1) - 31$ = 55

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Week 6 • Day 5
Vocabulary

Vocabulary Building

Read the following words and definitions.

Plethora: a large amount of something
Dearth: a shortage of something
Pittance: a very small amount of something, especially money
Copious: produced or existing in large quantities
Profuse: being or appearing in large amounts
Meager: insufficient

Now use your expanded vocabulary! Some new stores are opening up in town, and they need help deciding on names. Read each description below. Then circle the name that you think best fits the store.

1. A toy store with low, low prices
   (Toys for a Pittance) — A Dearth of Toys
2. A music store that sells instruments and gives music lessons
   A Pittance of Sound — (Copious Notes)
3. A health food store that specializes in fruit and vegetable juices
   Juice Dearth — (Profuse Juices)
4. A cleaning company that guarantees homes will be dirt free
   (A Dearth of Dirt) — Copious Dirt
5. A book store with three floors of books
   (A Plethora of Pages) — Meager Books

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Week 7 • Day 1
Sequencing

Step by Step

Whenever you write about something that has happened or how to do or to make something, it is important to write about the events or the steps in the correct order.

Carefully read the notes about the day the Mason family went on vacation. Number the events in the order that they happened.

- 8 back on road by 1:00
- 7 stopped for lunch around noon
- 2 helped Dad load up the van
- 10 unloaded van and went down to the beach
- 1 up at 6:00 AM, got dressed, ate breakfast
- 3 double checked house before locking up
- 5 stopped for gas on way out of town
- 9 arrived at the motel by late afternoon
- 6 got on the turnpike and headed east
- 4 piled in the van and ready to go by 7:30

Pretend that the notes above are yours. Use them to write a paragraph. Include a topic sentence, closing sentence, and title. Write about the events in sequence. Remember to indent the first line and to begin and end each sentence correctly. You may want to include words such as *before, that, after, first, next, then, later,* and *finally* to help indicate the order in which you did things. You can also use another sheet of paper to create a longer story.

Answers will vary.

page 83

Week 7 • Day 1
Variables

Expressions With Variables

Algebraic expressions, like arithmetic expressions, contain numbers and operation symbols, but they also contain variables. These variables are usually represented by letters.

Solve for the value of the variable in the expressions below. Remember to use the rules for the order of operations (see page 79) when necessary.

1. $Y + 15 = 20$	5	11. $25 = 12 + C$	13	21. $20 = 80 \div N$	4
2. $20 - X = 6$	14	12. $7 = 24 - Y$	17	22. $N \times 13 = 78$	6
3. $N - 13 = 8$	21	13. $24 \div X = 8$	3	23. $42 = N \times 7$	6
4. $45 + W = 62$	17	14. $C \div 7 = 6$	42	24. $16 - X = 4$	12
5. $5m = 30$	6	15. $6 \times A = 66$	11	25. $81 \div N = 9$	9
6. $3 \times A = 27$	9	16. $27 = 3 \times Y$	9	26. $N \times 1 = 39$	39
7. $N \times 6 = 48$	8	17. $15 = X + 7$	8	27. $8 \div X = 2$	4
8. $X \div 2 = 8$	16	18. $8 = C + 9$	72	28. $81 \div N = 27$	3
9. $B \div 3 = 21$	63	19. $(2 + 4) \times Y = 36$	6	29. $Y \div 8 = 6$	48
10. $N \div 4 = 12$	48	20. $9 + N = 15$	6	30. $9 + X = 20$	11

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Week 7 • Day 2
Reading for Information

Learning About Orcas

Orcas, also known as "killer whales," live their whole lives in the same family group called a pod. A mother can give birth to a calf every two years. The mother nurses and protects the young calf. Each member of the pod is committed to protecting the group.

Orcas have no vocal chords but make sounds through their blowholes. The blowhole is located in the center of the forehead, which allows the animal to whistle. Pod members are in constant communication, and since each whale's "whistle" is unique, the pod can tell who is "calling." The whistle is also used as a distress signal. Orcas also make clicks and "click trains" when talking.

When an orca sends out a signal, the pod listens in silence. When the first "speaker" has completed his or her "talking," another pod member will respond. Only the pod leader can "talk over" the signal of another pod member.

It is not unusual for these animals to reach a length of 40 feet and a weight in excess of 15,000 pounds. Being so large, they can be easy to spot. A tuna fisherman in the Southeast Pacific reported witnessing a pod of 15 orcas surrounding and circling a school of dolphins. The orcas swam in ever tightening circles around the dolphins. Suddenly, one orca left the circle and swam straight through the dolphin school, biting and chewing on anything it hit. Within minutes each orca followed the same tactic. After striking, each orca would return to the circle thereby keeping the dolphins trapped.

Orcas rarely hurt humans unless provoked. For this reason, marine parks the world over feature them. The orcas are fast learners in captivity. A newly captured orca is placed with already trained animals and soon learns all of the tricks. Trainers must keep ahead of them because the animals quickly become bored with the same tricks and begin to invent new tricks on their own.

Read each question. Then circle the letter of the best answer.

1. **An orca calf at birth**
   A stays with the pod only until it is grown.
   B lives by feeding on whatever it can catch.
   (C) is nursed by its mother.
   D leaves its mother and swims with the pod.
2. **In the example from the story, when the orcas hunted the dolphins, they**
   A kept circling until the dolphins tired.
   (B) hunted in a group.
   C ate their prey once they drew blood.
   D hunted on their own.
3. **Scientists who study orcas' communication have discovered that**
   A orcas are silent most of the time.
   (B) pods have strict rules for taking.
   C they love talking so much they often talk over each other.
   D their singe method of talking is to make a whistling through their blowholes.
4. **Orcas in captivity**
   A learn very slowly.
   B create all of their own tricks.
   C are easily amused.
   (D) quickly learn routines and tricks.

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Week 7 • Day 2
Creating an Outline

Outline It First

Now that you have read about killer whales, it's your turn to research additional information about them. You can use the Internet, books, magazines, newspapers, and any other available materials. After you have taken notes, decide what and how you will write about killer whales. Use the following template to guide you in creating the outline for your research paper. The outline is only a guide. You may find it necessary to change some of the lettering and numbering.

Title

I. _____
- A. _____
- B. _____
  1. _____
  2. _____
- C. _____
  1. _____
  2. _____

I. _____
- A. _____
  1. _____
  2. _____
- B. _____
- C. _____

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

Answers will vary.

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Week 7 • Day 3
Ratio and Proportions

Ratios & Proportions

Ratios, which are often expressed as fractions, describe relationships between two quantities. When two ratios are equal, they can be written as a proportion.

Key Concepts:

Ratio *a comparison of two quantities by division, which can be written three different ways:*

$3 : 4$ $\quad 3 \text{ to } 4$ $\quad \frac{3}{4}$

Proportion *a statement that two ratios are equal*

$\frac{2}{3} \quad \frac{4}{6} \quad \frac{10}{100} \quad \frac{1}{10}$

Each part of a ratio is called a **term**. *A* **ratio** *compares two quantities by division. A* **proportion** *is an equation stating that two ratios are* **equal**. *The ratios must compare quantities in the same way. One way to tell if rates form a proportion is to use cross products. In a proportion, the products of the first term of one ratio and the second term of the other ratio will be equal when cross multiplied:*

$\frac{3}{5} \cdot \frac{15}{25}$ $\quad 3 \times 25 = 75$ $\quad 15 \times 5 = 75$

Solve each of the following:

1. $\frac{5}{15} = \frac{x}{30}$ $\quad x = 10$
2. $\frac{n}{40} = \frac{5}{8}$ $\quad n = 25$
3. $\frac{1}{3} = \frac{2}{x}$ $\quad x = 6$
4. $\frac{11}{x} = \frac{1}{3}$ $\quad x = 33$
5. $\frac{10}{14} = \frac{N}{7}$ $\quad N = 5$
6. $\frac{50}{75} = \frac{N}{150}$ $\quad 100$

Circle the rates that form proportions:

(7) $\frac{3}{25}$ $\frac{6}{50}$
(8) $\frac{4}{24}$ $\frac{7}{42}$
9. $\frac{1}{4}$ $\frac{2}{4}$
10. $\frac{3}{8}$ $\frac{1}{4}$
(11) $\frac{6}{3}$ $\frac{8}{4}$
12. $\frac{4}{100}$ $\frac{40}{40}$

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Week 7 • Day 3
Word Choice

Which Word?

Read the following sentences. Circle the letter of the word that **best** completes the sentence.

1. **The old dump truck was used to _____ the dirt from the landfill to the new houses.**
   A. browse B. confront C. transport D. impede
2. **Natalie was an internationally traveled woman who was considered to be a _____ woman.**
   A. cosmopolitan B. subtle C. gruesome D. egitimate
3. **The foreign army tried to _____ the citizens of the country in order to gain control.**
   A. inflate B. bestow C. cater D. oppress
4. **Kevin's horse was very _____ galloping around the racetrack with delight.**
   A. infuriated B. spirited C. perturbed D. uncertain
5. **Jan encountered a _____ environment when she tried to change the club's policies.**
   A. hostile B. status C. casual D. permanent
6. **In an effort to _____ plenty of food for winter, the squirrel gathered food all day.**
   A. resume B. tamper C. procure D. overwhelm
7. **Mrs. McCoy told Jerold that he wanted to act like a _____, he should join a circus.**
   A. legacy B. buffoon C. mellow D. fragrant
8. **We all thought Carla was trying to _____ everyone with her irrational behavior.**
   A. persist B. ponder C. bewilder D. wayward
9. **The administration took a _____ stand on the dress code at the local schools by not allowing blue jeans.**
   A. controversial B. status C. pending D. preview
10. **Some online games let you create a _____ world that you can base on your life.**
    A. oration B. species C. lethal D. virtual

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Week 7 • Day 4
Types of Sentences

Identifying Sentence Types

A **simple sentence** *has one independent clause (a subject, a predicate, and a complete thought) and no dependent clauses. A simple sentence may have compound parts (i.e., subjects and predicates).*

A **compound sentence** *has two or more independent clauses joined together, but no dependent clauses. The clauses may be joined by a comma and a coordinating conjunction or by a semicolon. Examples of coordinating conjunctions are* **and, but, or, nor,** *or* **for.**

A **complex sentence** *has one independent clause and one or more dependent clauses. Many dependent clauses are introduced by a subordinating conjunction. Examples of subordinating conjunctions are* **after, although, as, as soon as, because, before, even though, if, since, than, though, unless, until, when, whenever, wherever, which, while.**

After studying the definitions of the types of sentences, identify each sentence below with **S** for simple, **CD** for compound, and **CX** for complex.

S 1. Will iam Shakespeare wrote many plays for Queen Elizabeth I.
CD 2. Shakespeare took old stories from other countries and he wrote plays from them.
CD 3. People watched the plays at Elizabeth's castle, or they saw them in the public theaters.
CX 4. Because only wealthy people could buy theater seats, the common people had to stand.
CX 5. Even though there were parts for women in the plays, women were not allowed to act.
S 6. In the 1500s, boys or men played the parts of women in plays.
CD 7. Queen Elizabeth enjoyed theater, and was skilled with money, and many theaters were built under her rule.
S 8. Many people today still enjoy Shakespeare's plays.

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Week 7 • Day 4
Percents

How Much?

Fractions, decimals, and percents *are related and can be changed to any of the other forms.*
Examples:
38% = $\frac{38}{100}$, 0.38; 30% = $\frac{30}{100}$, 0.30 or 0.3; .45 = $\frac{45}{100}$, 45%; 0.09 = $\frac{9}{100}$, 9%

Solve the following problems.

1. **Mary Jane has a 25% off coupon to Super Sport Emporium. She purchased a new soccer ball, cleats, and a team jersey. The total before taxes was $250. How much is her total after the 25% discount? After the discount is applied, the register computes 3% sales tax. What is her final bill?**
   Total after the 25% discount = $ 187.50. Sales tax of 3% = $ 5.63. Final bill = $ 193.13
2. **Kendra took out a one-year loan of $2,000 to purchase a car. The interest on the loan was 5%. How much interest will she pay?**
   Total interest = $ 100. Total amount paid back on the loan = $ 2100
3. **Antonio and three of his friends are holding a car wash to raise money for their basketball team. They are charging $5 per car. The supplies cost $20. If they wash 25 cars, what percentage of their earnings was spent on supplies?**
   16%
4. **Crystal is saving to buy school supplies. She wants a backpack that costs $45.00, 2 notebooks that cost $2.50 each, and colored pens that cost $10.00. Her father told her he would contribute $20 toward the total purchase. What is the total cost of Crystal's supplies? What percentage of the total cost is her father contributing?**
   Total cost is $60.00; her father is contributing 33%
5. **Audrey's shopping to buy a new bike. The bike shop owner told her he would give her a 15% discount on a new bike if she trades in her old bike. The new bike costs $125.00. How much would it cost if she gets the trade-in discount?**
   With an $18.75 discount, the bike would cost $106.25

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Week 7 • Day 5
Point of View

The Narrator

Every story or narrative has a narrator. When a story has a **first person point of view,** *the narrator is a story character who uses the pronouns I, me, and myself to tell what he or she thinks, feels, and does. Readers see the story through the eyes of this character only.*

I tried to calm myself after looking down and see ng a scorpion crawling up my leg. I was terrified. "Matt," I croaked, barely able to speak, "please help me!" Matt turned around and raced to my side.

When a story has a **third person point of view,** *the narrator is not a character but someone outside the story. The narrator reveals the actions and words of all the characters but tells the thoughts and feelings of only one main character.*

She tried to calm herself after looking down and seeing a scorpion crawling up her leg. She was terrified. "Matt," she croaked, barely able to speak, "please help me!" Matt turned around and raced to her side.

Rewrite the following passage from a first person point of view.

Spotting the doe in a clearing, he froze in his tracks and quietly took out his camera. He didn't want to startle the animal before getting at least one shot. Sensing his presence, the doe looked up at me. "Don't be frightened," I said in my most soothing voice. "I won't hurt you. I just want to take your picture." The doe accommodated me for about five seconds before running off into the woods.

Spotting the doe in a clearing, I froze in my tracks and quietly took out my camera. I didn't want to startle the animal before getting at least one shot. Sensing my presence, the doe looked up at me. "Don't be frightened," I said in my most soothing voice. "I won't hurt you. I just want to take your picture." The doe accommodated me for about five seconds before running off into the woods.

Rewrite the following passage from a third person point of view.

After hiking for more than an hour up the steep trail, I decided to take a break because my feet were killing me. Although I had worn my new hiking boots around the house all week, I soon realized that they were not sufficiently broken in. "I should have listened to Beth and worn my old boots," I grumbled to myself.
"Did you say something, Jenny?" Beth asked.

After hiking for more than an hour up the steep trail, she decided to take a break because her feet were killing her. Although she had worn her new hiking boots around the house all week, she soon realized that they were not sufficiently broken in. "I should have listened to Beth and worn my old boots," she grumbled to herself. "Did you say something, Jenny?" Beth asked.

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Week 7 • Day 5
Point of View

Look at the scenario below. Write a short story using the first person point of view either the camper's or the skunk's. A topic sentence is provided to help you get started.

It was an absolutely perfect summer evening at the Pine Grove Campgrounds until my unexpected encounter _____

Answers will vary.

Now rewrite the story using the third person point of view.

It was an absolutely perfect summer evening at the Pine Grove Campgrounds until the unexpected encounter _____

Answers will vary.

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Week 8 • Day 1
Estimation

Estimation . . . an Approximation!

Estimation *is a valuable skill that you will frequently use in daily life.*
Example: *Janet has $10 to spend for lunch. She would like to order a drink, a hamburger, and fries. The menu lists drinks as $1.59, a hamburger for $5.95, fries in two sizes: small for $1.29 and large for $1.99. Can she afford the large fries? She estimates the cost of lunch as follows:*

$5.95 ▶ $ 6.00
$1.99 ▶ $ 2.00
$1.59 ▶ $ 2.00
$10.00

Estimate answers as directed for each of the following problems.

1. **Central Middle School has two cafeterias. The eighth grade has four teams: Team A has 127 students, Team B, 135 students, Team C, 131, and Team D, 137 students. Which pairs of teams should eat together so most evenly distribute the students?**
   A + D and B + C
2. **Estimate the following:**
   432 ÷ 9 = 43 62 x 7 = 420 536 + 814 = 1,350 1,976 − 922 = 1,050
3. **Tickets to the seventh grade school dance are $7.50. Homeroom B has 28 students. If everyone purchases a ticket, about how much will Homeroom B collect?**
   7.50 x 28 est: 8 x 30 or $240
4. **The class trip to the beach will cost $19 for transportation, $27.95 for admission, $13.95 for food, and $7.95 for unlimited soft drinks for the day. What should each student estimate as the cost for the trip?**
   20 + 28 + 14 + 8 = $70
5. **Peter and Paul are planning an all-day bike ride. They plan to leave by 9:00 AM and must return home by 5:00 PM. The distance from home to the lake is 11 miles. The distance to the picnic area on the far side of the lake is 3.5 miles. Traveling at a speed of 16 miles per hour at approximately what time will they arrive at the picnic area? At what time will they need to leave to arrive home by 5:00 PM?**
   11 mi + 4 mi = 15 mi 16mph = 1 hour/leave at 4 p.m.

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Week 8 • Day 1
Synonyms/Antonyms

Synonyms and Antonyms

Synonyms *are words that have* **similar** *meanings.*
Antonyms *are words that have* **opposite** *or nearly opposite meanings.*

Read each sentence. Then circle the letter of the best synonym for each italicized word.

1. **Maria enjoyed the *placid* atmosphere of the cabin.**
   A. pastic B. quiet C. stressed D. noisy
2. **David *pleaded* for a new skateboard.**
   A. argued B. asked C. pulled D. begged
3. **Andy was so *lethargic* he could barely keep his eyes open.**
   A. excited B. anxious C. tired D. enthusiastic
4. **The *din* of the cuckoo clock woke us up.**
   A. quiet B. noise C. charm D. smell
5. **The famous author received a *plethora* of fan letters.**
   A. abundance B. packet C. shortage D. lack
6. **Police officers swear to *protect* citizens.**
   A. arrest B. defend C. direct D. ignore

Write an antonym for each word.

1. dull — sharp
2. narrow — wide
3. always — never
4. flexible — rigid
5. wrong — right
6. damp — dry
7. tired — energetic
8. criticize — praise

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Week 8 • Day 2
Reading for Details

What's for Lunch?

Have you ever heard of a fish called a caribe? These blood-thirsty fish are more commonly known as piranhas. These South American natives live in the mighty Amazon River. Piranhas range in size from as small as four inches to as large as 18 inches in length. Animal and human life along the Amazon are terrorized by vicious schools of piranhas. A single school may include more than a thousand fish. Scientists believe that for their size, piranhas are more dangerous than sharks. With their razor-sharp teeth, they can strip the flesh from the carcass of any animal down to its skeleton in a matter of minutes. Approximately 20 different varieties of piranhas have been identified. Gold or red spots on bluish gray, green, or yellow bodies are the most common varieties of the caribe.

Read each statement below. If it is true, write **T**. If it is false, write **F**.

1. **All piranhas are green** — F
2. **Piranhas are native to North America** — F
3. **They terrorize animals** — T
4. **Schools can number in the thousands** — T
5. **Piranhas have razor-sharp teeth** — T
6. **Piranhas are not as dangerous as sharks** — F
7. **Another name for this fish is caribe** — T
8. **There are rough-y 20 varieties of piranhas** — T
9. **The piranha is an endangered fish** — F
10. **Piranhas have spots** — T

Research online or at your local library to find out more about piranhas and answer the following questions.

1. **Where do the greatest concentration of caribe occur?**
   Uraima Falls, Lake Guri, Paraguay River
2. **From your research, does everyone die from the piranhas' attacks?**
   No, people rarely die, but many have bite-mark scars.

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Week 8 • Day 2
Solving Word Problems

African Arithmetic

Solve the following word problems. Show your work.

1. The Nile River is 4,160 miles long, making it the longest river in the world. The Congo River is 2,720 miles long, and the Niger is 2,600 miles long. What is the combined length of these three great African rivers? **9,480 miles**	5. The largest lake in Africa, Lake Victoria, covers 26,828 square miles. Lake Superior in North America covers 31,820 square miles. How much larger is Lake Superior than Lake Victoria? **4,992 square miles**
2. Mount Kilimanjaro is Africa's tallest mountain with an elevation of 19,340 feet above sea level. The lowest place in Africa is Quattara Depression, which is 436 feet below sea level. How much higher is Mount Kilimanjaro than Quattara Depression? **19,776 feet**	6. The Sahara in North Africa is the largest desert in the world. It covers 3,000,000 square miles. What percent of Africa is covered by the Sahara? **26.5%**
3. Deserts cover two-fifths of Africa. Of Africa's 11,677,000 square miles, how many are desert? **4,670,800 square miles**	7. Some tropical parts of Africa get 150 inches of rainfall per year. If it rained the same amount each day, what would be the approximate daily rainfall? (to the nearest tenth) **0.4 inches**
4. Forests and mountains cover one-fifth of Africa. How many square miles of Africa is covered by forests and mountains? **2,335,400 square miles**	8. One year Africa exported 144,000 pounds of ostrich feathers and 108,000 pounds of gold. How many more pounds of ostrich feathers than pounds of gold were exported? **36,000 pounds**

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Week 8 • Day 3
Coordinate Points

Graphing Coordinate Points

Use the graph on the next page. Follow the directions to complete this puzzle.

Begin with: (8, 5) (4, 5) (4, 2) (3, 1) (4, 1) (5, 2) (5, 5) (9, 5) (9, 1) (10, 1) (10, 7) (11, 8) (11, 9) (9, 11) (8, 11) (7, 10) (4, 13) (3, 13) (6, 10) (7, 11) (8, 11) (10, 9) (10, 8) (9, 7) (9, 1) (8, 1) (8, 5)

Lift pencil and start again with: (9, 7) (8, 7) (6, 5) (6, 3) (4, 1) (5, 1) (7, 3) (7, 5) (9, 7) (10, 7)

Lift pencil and start again with: (6, 10) (5, 9) (3, 11) (4, 11) (6, 9) (7, 10)

Lift pencil and start again with: (7, 8) (8, 8) (9, 9) (8, 10) (7, 10) (6, 9)

Lift pencil and start again with: (7, 9) (8, 10) (9, 10) (10, 9) (9, 8) (8, 8)

Lift pencil and start again with: (3, 3) (2, 2) (3, 2) (4, 3)

Lift pencil and start again with: (1, 3) (2, 3) (3, 4) (3, 5) (2, 6) (1, 6) (2, 5) (2, 4) (1, 3)

Lift pencil and start again with: (0, 4) (0, 5) (1, 5) (1, 4) (0, 4)

Lift pencil and start again with: (1, 4) (1, 5) (2, 5) (2, 4) (1, 4)

Lift pencil and start again with: (3, 8) (2, 9) (1, 8)

Lift pencil and start again with: (2, 8) (3, 9) (4, 8)

Stop

Place a dot at: (2, 8) and (3, 8)

Finish!

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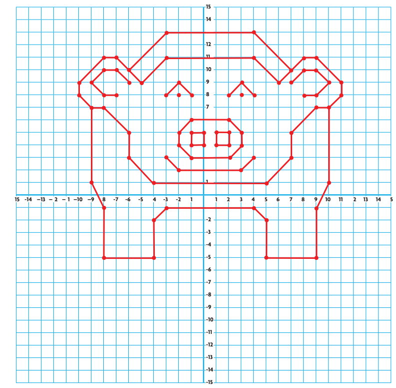
Week 8 • Day 3
Coordinate Points



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Week 8 • Day 4
Appositives

Tackling Appositives

*An **appositive** is a noun or pronoun, often with modifiers, placed beside another noun or pronoun to explain or identify it. Appositives are another way of telling who or what the noun or pronoun is. The appositive can either precede or follow the word it modifies. Remember: There are NO verbs in an appositive. An appositive adds information about a person, place, or thing. It is not an adjective.*

Example: Mrs. Peek, my daughter's piano teacher, has moved to Florida.

Underline the appositives in the following sentences. Draw an arrow to the word(s) it modifies.

1. A beautiful cocker spaniel, Coco was my favorite dog.
2. My brother's car, a sporty black convertible, is the first car he's ever had.
3. John Kennedy, a popular U.S. president, was known for his eloquent speeches.
4. My daughter, an accomplished musician, has two performances this weekend.
5. The pilot, Captain Clark, said to fasten our seat belts.
6. The chief surgeon, an expert in organ transplant procedures, took us on a hospital tour.
7. An above average student and talented artist, Roger made his family quite proud.

Use appositives to combine the sentences below.

8. Maria won the school district spelling bee. She is an excellent speller.
Maria, an excellent speller, won the school district spelling bee.
9. Have you ever been to Yellowstone National Park? It is the largest national park in the U.S.
Have you ever been to Yellowstone National Park, the largest national park in the U.S.?
10. Lauren bought me a shirt for my birthday. She is a great friend.
Lauren, a great friend, bought me a shirt for my birthday.

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Week 8 • Day 4
Math Challenges

Brain Teasers

See how quickly you can answer each of the challenges below.

Coin Sense
Write which coins you would need so that the number of coins listed adds up to $1. Use only standard coins.

1. 2 coins	**2 half dollars**		6. 8 coins	**3 quarters, 5 nickels; or 2 quarters, 4 dimes, 2 nickels**
2. 3 coins	**1 half dollar, 2 quarters**		7. 10 coins	**10 dimes**
3. 4 coins	**4 quarters**		8. 13 coins	**7 dimes, 6 nickels**
4. 5 coins	**half dollar, quarter, 2 dimes, nickel**		9. 15 coins	**5 dimes, 10 nickels**
5. 6 coins	**3 quarters, 2 dimes, 1 nickel**		10. 20 coins	**20 nickels**

Magic Thirteen
Can you make 13 ones equal 13? Of course you can, but now try these.
You may use addition, subtraction, multiplication, division, and fractions.

11. Five 3s that equal 13: $3 \times 3 + 3 + \frac{3}{3} = 13$
12. Thirteen 2s that equal 13: $22 - 2 - 2 - 2 - \frac{22}{22} - \frac{2}{2} - \frac{2}{2} = 13$
13. Thirteen 9s that equal 13: $9 \div \frac{99}{99} + \frac{9}{9} + \frac{9}{9} + \frac{9}{9} + \frac{9}{9} = 13$
14. Thirteen 1s another way: $11 \times 1 + \frac{11}{11} + \frac{111}{111} = 13$

Heads and Legs
15. A farmer tells you he has both goats and ducks on his farm. When you ask how many of each, he tells you that there are 9 heads and 24 legs.
Therefore, he has **6** ducks and **3** goats.

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Week 8 • Day 5
Poetry

Poetry Fun

Not all poetry needs to rhyme. In this activity, you will write an autobiographical poem. Use this page to create your poem. Make the poem as reflective of you as possible.

The Me That Lives Inside Me

If you really knew me, you would know...

1st Stanza
I am ______ (name, two special characteristics that you have)
I see ______ (a real or imaginary sight that affects you)
I wonder ______ (something you are actually curious about)
I hear ______ (something you either actually hear or hear in your mind)
I want ______ (a tangible or intangible desire)
I am ______ (repeat the second line)

2nd Stanza
I feel ______ (something that you feel is important)
I touch ______ (again, something real or imaginary to touch)
I pretend ______ (name something you actually pretend to do or be)
I cry ______ (something that makes you sad)
I worry ______ (name what really bothers you or who you bother)
I am ______ (repeat the last line of stanza one)

Answers will vary.

3rd Stanza
I understand ______ (something you know to be true)
I say ______ (this can be a belief or something you often say)
I dream ______ (an actual dream or a day dream)
I try ______ (you really make an effort to do this)
I hope ______ (something you hope will come true)
I am ______ (repeat the last line of stanza one)

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Week 8 • Day 5
Prefixes & Suffixes

Conquering Prefixes & Suffixes

*A **prefix** added to the beginning of a base word changes the meaning of the word. Some prefixes have only one meaning while others have more than one meaning.*

Prefix	Meaning
dis	opposite of, lack of, not
mis	bad, badly, wrong, wrongly
pre	before
de	remove from, reduce

*A **suffix** added to the end of a word can change both its part of speech and meaning. Like prefixes, some suffixes have one meaning, and others have more than one meaning.*

Suffix	Meaning
able	able to be, suitable, or inclined to
al	relating to, like
ous	full of
ist	one who
ness	quality of, state of being

Add a prefix or suffix from the lists above to each word in parentheses to correctly complete each sentence. Be careful to check the spelling of the new word.

1. Jim and Ed **distrusted** (trusted) the outdated directions.
2. We were chosen to **preview** (view) the movie before it opened.
3. Juan helped Teresa **defrost** (frost) the refrigerator.
4. The Mexican people have a great deal of **national** (nation) pride.
5. All Americans should be **knowledgeable** (knowledge) about their country's history.
6. Tonya was bitten by a **poisonous** (poison) spider.
7. My sister is a (guitar) **guitarist** in a rock band.
8. The weatherman **mispoke** (spoke) and gave the wrong temperature.
9. Her (inventive) **inventiveness** will surely make her a great entrepreneur.

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Week 9 • Day 1
Persuasive Writing

Nothing but the Truth?

*When writing to persuade, the intent is to convince the reader to believe or do something. A persuasive essay may also be written in defense of an issue. Issues are ideas about which people have strong feelings. Every issue has two sides and the writer's voice will be either **pro** (for) or **con** (against). It is the aim of the writer to convince the reader to support his or her **claim** (statement revealing the writer's side of the issue).*

A persuasive essay must contain the following: an introductory paragraph with a strong thesis statement as the final sentence; at least one paragraph with three supporting details; and a concluding paragraph with the final sentence restating the thesis statement.

Read the following issues and choose whether you will argue the pro or con side. Write a short essay (at least three paragraphs) that states and supports your claim.

Issue 1: The Message and Power in Hip Hop Lyrics
Issue 2: The Influence of Violent Video Games on Gamers
Issue 3: The Benefit of Team Sports for Teens

Pro or Con Claim: ______

Thesis Sentence: ______

Answers will vary.

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Week 9 • Day 1
Tree Diagrams

Tree Diagrams

How many combinations can you make? A tree diagram can help you keep track of every possible outcome and show them in a clear order.

Example:
George is making sandwiches for his family. He has both tuna and egg salad. Bread choices are a roll, whole wheat, or rye. How many sandwich combinations are possible? Note: Using abbreviations can help keep your diagram simple. In the example: T = tuna, E = egg, RO = roll, WW = whole wheat, RY = rye

T → RO, WW, RY
E → RO, WW, RY
6 combinations

1. Girls at St. Stephens' School have the following uniform choices: skirt or slacks, long or short sleeve blouse, and a sweater or a jacket. How many different outfits can the girls create?

SK → L → S, J; S → S, J
SL → L → S, J; S → S, J
8 outfits

2. A three-day tour offers travelers the following activities: Day 1 — going whale watching or to a baseball game; Day 2 — hiking or sightseeing; Day 3 — visiting a museum, a historic battlefield, or a landmark. How many possible outcomes are there?

WW → H → M, B, L; S → M, B, L
BB → H → M, B, L; S → M, B, L
12 outcomes

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Week 9 • Day 2
Reading for Information

Oh Canada!

Canada is the second largest country in the world It is sligh ly larger than the continent of Europe The name *Canada* is thought to be a corrupt on of the Iroquois word *Kanata*, which means commun ty Canada was the French colony of New France until the 1763 British conquest

The Canad an flag has a red stripe on either side of a white midsection containing a maple leaf The outer stripes represent the Atlantic and Pacific Oceans and were originally planned to be blue However, they were changed to red to represent the blood shed by Canadian soldiers n World War I The white represents the snowy North

Approximately 80 percent of Canada's popular on l ves within 100 miles of the U S border English and French are the two official languages of Canada In addit on, there are many indigenous and immigrant languages spoken There were and st ll are many First Nations, or native cultures, n Canada each with its own language, culture, and h story Canada's diverse population prov des a rich and varied culture and folklore

Although hockey is the country's most popular sport, lacrosse is actua ly the national sport Hockey was supposedly invented in Canada (or possibly in New England disputes continue) and has been a proud part of the Canadian way of life for many centur es Lacrosse is based on a traditional Iroquois game Because of its cold climate, Canadians enjoy winter sports, including ice skating, skiing, snowboarding, curling, sleigh riding, and tobogganing

Canada's wealth comes from natural resources, farming, ranching, fishing, and tourism Canada's prairies are huge suppliers of wheat, canola, and other grains Canada is the world's largest producer of zinc and uranium, and a world leader in producing gold, nickel, aluminum, and lead Timber s also a major natural resource

One final note of nterest is that Alberta, Canada, has more d nosaur finds than any other place on Earth In the sou heastern quadrant of A berta is a swath of lunar like landscape known as the Canad an Badlands This ancient seabed is home to some of the world's r chest deposits of prehistoric fossils and dinosaur finds

After read ng the above passage on Canada answer the following questions

1 **Canada is slightly larger than the cont nent of** Europe

2 **The two red bands on the Canadian flag represent the** Atlantic and Pacific oceans

3 **Canada's na ional sport is** lacrosse

4 **The best place in the world to ind dinosaur foss ls is** Alberta

5 **Canada is the world's largest producer of** zinc and uranium

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Week 9 • Day 2
Using References

Guide Words

At the top of each page n a dictionary are **guide words** These two words te l you the first and last words that appear on that page When look ng up a word n the dictionary the guide words wi l he p you locate that word more quick y

Look up the wo ds below in a d ctionary Wr te the guide words for that page on the lines prov ded Then ist another word that would be found on that page in the d ct onary

	First Guide Word	Last Guide Word	Add tional Word
1 **masterful**			
2 **expand**			
3 **nausea**			
4 **solvent**			
5 **d scret on**			

Answers will vary.

Best Reference Source

Circle the etter next to the best resource to use for each task l sted

6 **n which reference book would you find in ormation about the phases of the moon?**
A encyclopedia B at as (C) almanac

7 **n which reference book would you find the def nition of *nebulous*?**
A thesaurus (B) d ctionary C encyclopedia

8 **n which reference book would you find in ormation on the his ory and culture of Peru?**
A atlas (B) encyclopedia C almanac

9 **n which reference book would you find the best map of Europe?**
A thesaurus B encyclopedia (C) atlas

10 **n which reference book would you find the most synonyms for the word *fatigue*?**
A d ct onary (B) thesaurus C encyclopedia

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Week 9 • Day 3
Finding Averages

Mean, Mode, Median & Range

Mean median *and* **mode** *are three kinds of averages* **Range** *is the difference between the largest and smallest value in the group of numbers*

1) To f nd the **mean** *of a set of numbers add all the numbers and then divide their sum by the number of addends*

2) The middle number in a set of numbers is the **median** *To find the* **median** *the numbers must first be arranged in order If there are two middle numbers (which will occur if there s an even number of addends) the* **median** *is the average of the two middle numbers*

3) **Mode** *refers to the number that occurs most frequently in a set of numbers*

Find the mean mode median and range for each problem be ow

1 **Gloria is very worried about her math grade Current y her grades are 61 79 52 56 78 79 and 71**
Mean: 68 Med an: 71 Mode: 79 Range: 27

2 **Restaurant Delux served the following number of diners over a period of ten days: 171 208 216 212 152 171 136 193 124 and 163**
Mean: 175 Med an: 171 Mode: 171 Range: 92

3 **The seventh grade at L ncoln Junior High School reported he following absences for the first two weeks in October: 8 6 11 9 4 12 2 9 10 9**
Mean: 8 Med an: 9 Mode: 9 Range: 10

4 **Mega Market has seven local ons in one region The number of employees by store are 235 330 435 245 320 235 and 325**
Mean: 304 Med an: 320 Mode: 235 Range: 200

5 **The Kearny Soccer Team won all seven of its league games Their scores were 3 9 7 5 4 3 and 5**
Mean: 5.1 Med an: 5 Mode: 3 & 5 (double mode:) Range: 6

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Week 9 • Day 3
Analog es

Analogies

Analogies *show relationships between pairs of words or terms Analogies are generally written in the following form:*
Example: duet : two : : quartet : four (**duet** is to **two** as **quartet** is to **four**)
To solve an analogy study the first pair of words until you discover the relat onship between them
Example: misty : foggy (synonyms) : : messy : _____
A dressy B noisy C tidy D sloppy
(Sloppy is a synonym for messy so it is the best choice)
Analogies may be synonyms antonyms homonyms rhyming words parts of a whole and many other comparisons

The following problems represent a var ety of poss ble categories of analogies C rcle the correct etter

1 **turkey : _____ : : milk : drink**
A ice cream (B) food C plate D wedding

2 **replica : copy : : petty : _____**
(A) trivial B ser ous C pecul ar D pallor

3 **lavender : purple : : ruby : _____**
A green B b ue (C) red D ye low

4 **coyote : desert : : dolphin : _____**
A water (B) ocean C sw m D stream

5 **tusk : walrus : : ant er : _____**
A zebra (B) moose C vory D cow

6 **octagon : eight : : pentagon : _____**
A three B seven C rectangle (D) five

7 **lose : win : : a tack : _____**
A karate (B) defend C charge D score

8 **mousse : moose : : mussel : _____**
A clam B whip (C) musc e D food

9 **omato : ketchup : : _____ : guacamo e**
A ch cken (B) avocado C ch ps D mash

10 **bal erina : dancing : : vocal st : _____**
A vo ce B mus c (C) sing ng D performance

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Week 9 • Day 4
Exponents

Exponents and Powers

Exponents *give a convenient way to write some numbers in a shortened form*
Remember: *An* **exponent** *is a number that tells how many t mes another number (***base***) s used as a* **factor**
The term **power** *is g ven to the* **exponent**
Example: *2 x 2 x 2 can be written as* 2^3 *It s read as 2 to the power of 3 or 2 cubed*

F nd the value of each number

1 7^3 343 2 20^3 8,000 3 13^5 371,293 4 4^5 1,024 5 54^2 625

So ve each problem below

6 $2^2 + 3^3 =$ 13

7 $4^2 \quad 2^2 =$ 12

8 $4^3 + 3^2 =$ 73

9 $1 \times (2^2 \times 4^2) =$ 64

10 $2^2 + (4 \quad 2) =$ 6

11 $4 \times (2^2 \div 1) =$ 16

12 $6^2 + 3^2 \quad (2^2 + 2^3) =$ 33

13 $5^2 + 6^2 + 4^2 =$ 77

14 $(5^3 \quad 2^5) + (4^2 + 2^3) =$ 145

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Week 9 • Day 4
Mixed Practice

Math Review

Solve each problem

1 **Circ e the number from the given set in the box that**
is an odd number
is greater than 7
is not a prime number
is not a mult ple of 3
is a factor of 343

1	3	4	6	8	9
11	14	16	21	23	
27	31	32	35		
38	40	41	45	(49)	

2 **Brooks Elementary School cost $1 349 739 00 to build but the cost of Lakeside High School s addit on is 3 times as great How much did the high school add tion cost?**
$4,049,217

3 **Jul o is buying a used car He paid ¼ of the cost as a down payment If the down payment was $1 283 12 what will be he total price of the car?**
$5,132.48

4 **The regular s ze cof ee at the local m ni mart is 8 ounces Diane dr nks 4 cups every day for a week How many ounces does she drink n one week?**
224 ounces

5 **Second period Language Arts has a total of 21 students The ratio is 5 g rls to 2 boys How many g rls are in the class?**
15 girls

6 **When Tony empt es h s pockets he finds 7 coins w th a total va ue of $ 48 What coins does he have?**
1 quarter, 1 dime, 2 nickels, 3 pennies

7 **On her tr p this week Janet drove 3 hours and 10 minutes one way Her next tr p s 4 times as far How ong wi l she drive on her next trip?**
12 hours, 40 minutes

Extra Challenge

8 **Sal's Diner is famous for the r 3 minute egg Th s morn ng the usual t mer is broken The o her two hour glass type timers in he diner can on y measure 2 minutes or 5 minutes How can Sal be certain he bo ls his eggs for exactly 3 m nutes?**
When water comes to a bo l, turn both timers over. When the 2 minute timer is done, add egg to water. When the 5 minute timer is done, the egg is done.

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Week 9 • Day 5
Drawing Conclus ons

A Timely Business

To **draw conclusions** *is to use the information in a story to make a logical assumption*

April 15, 1860 The pony express mail del very service s happy to announce that its riders finished the first complete run from Sa nt Joseph, Missouri, to Sacramento, California It originated on April 3

For those of you unfamiliar with the pony express, th s impress ve serv ce employs men who ride fast ponies or horses, relay style, across a 1,966 mile trail These men carry letters and small packages They promise delivery from one end of the trail to the other in 10 days or less!

Finally, there is a way to communicate long distance with friends and acquaintances You will not have to rely on slow boats or stagecoaches About 180 riders, 400 fast horses, and 190 pony express stations make up the pony express Its r ders are generally of small build, and many are teenagers A day's work consists of about a 75 mile trip, with stops at several stations The stations are about 10 to 15 miles apart R ders earn about $100 to $150 a month

Currently, it costs $5 00 to send half an ounce of mail However, the pr ce could fall to $1 00 in the future if the service continues to do well Mail ussua ly travels at a rate of about 200 miles a day The pony express operates both day and n ght to ensure timely delivery of mportant letters and packages Its riders work in all kinds of weather

October 26, 1861 Sad news for the pony express After operating for only about 19 mon hs, the service closed its doors today This came just 2 days after the opening of the transcontinental telegraph, a device that has revolutionized long distance communication Needless to say, the pony express faces huge monetary losses

The closing comes just months after the pony express service boasted of a 7 day, 17 hour delivery from St Joseph, Missouri, to Sacramento, Cal fornia The record breaking ride delivered a copy of President Abraham Lincoln's first address to Congress

1 **Which statement shows what was least l kely to have happened af er the pony express closed?**
(A) People rel ed on boats and stagecoaches for ma l del very
B Pony express r de s had to f nd new jobs
C There were many fast horses for sa e
D News t aveled more quickly by means of the transcontinental te egraph

2 **How do you th nk people fe t about the pony express closing** _____
Answers will vary.

3 **How do you th nk the pony express riders felt a ter the pony express closed**
A relieved B tired (C) defeated D enlightened

4 **What do you th nk would have happened to the pony express f it had stayed open after the transcontinental elegraph opened?**
A It wou d have hired more ders and built several more trails for ts ders to use
(B) People wou d have stopped us ng the pony express once they saw it was more eff cient to communicate over d stance by means of the t ansconti nental telegraph

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Week 9 • Day 5
Word Or g ns

Etymology of English Words

Comp ete the sentences and passages be ow by choosing the correct word from the word bank

WORD BANK

atlas	denim
Saturday	chauv nism
harmony	dungarees
leotards	arachnids
cereal	malapropism

1 **n the 19 h century a French acrobat Jules Leotard performed in tight itting c othes now cal ed** leotards

2 **Sturdy coarse cotton clo h from "de Nimes " France s known n Engl sh as** denim

3 **People n Dungri India wove a sturdy cotton hat was used to manufacture pants called** dungarees

4 **Mrs Malaprop a character in a play by Richard Brinsley Sheridan uses words that sound *almost* like the correct word but make the statement ridiculous n one instance she gdv ses "illiterate him quite rom your mind " Now such a mistake is called a** malapropism

5 **A col ection of world maps is called an** atlas **after the Greek myth about the man who holds the world on his shoulders**

6 **Grains eaten for breakfast are called** cereal **af er Ceres the goddess of agriculture**

7 **Saturn lends his name to his day of the week** Saturday

8 **n Greek mythology Harmonia was the offspring of Love and Strife Her name is he source of the word or bringing together of elements or** harmony

9 **Athena turned the weaver Arachne into a spider which are now classi ied as** arachnids

10 **Nicolas Chauv n was a French sold er whose name led o the word** chauvinism **meaning feel ng super or to women or other groups**

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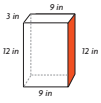
Week 10 • Day 1
Area

Surface Area of a Rectangular Prism

A rectangular prism has six faces To f nd the **surface area** *of a rectangular prism you must calculate the sum of all the faces or surfaces of the solid The surface area of rectangular prisms can be found using this formula: SA 2lw + 2lh + 2wh*

Example:



Top	+	Bottom	+	Front	+	Back	+	Left	+	Right
9 (3)	+	9 (3)	+	9 (12)	+	9 (12)	+	3 (12)	+	3 (12)
27	+	27	+	108	+	108	+	36	+	36

The surface area s 342 square inches

Find the surface area of the fol owing

1 **A cube whose edges are 4 n** 46 sq in.

2 **A rectangular prism that is 3 in by 5 in by 2 in** 62 sq in.

3 **A rectangular prism 15 in by 30 n by 12 in** 1,980 sq in.

4 **A rectangular prism 23 cm by 5 cm by 9 cm** 734 sq cm

5 **A cube whose edges are 10 cm** 600 sq cm

6 **A rectangular prism 2 m by 1 m by 3 m** 22 sq m

7 **A cube whose edges are 5 yd** 150 sq yd

8 **A rectangular prism 50 mm by 70 mm by 100 mm** 26,200 sq mm

9 **A rectangular prism 2 5 ft by 3 1 ft by 7 ft** 93.9 sq ft

10 **f a rectangular prism is 5 n wide and 10 in high and has a surface area of 280 sq in what is the pr sm's length?** 6 in.

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Seems the Same

Each of the following words has a **synonym** that will serve as a partial definition listed among the four choices. Circle the correct word.

1 **wink**
A come B wave C cute D eyesignal

2 **marvelous**
A pitiful B gigantic C wonderful D beautiful

3 **ret**
A laugh B worry C ask D cry

4 **drowsy**
A sleepy B night C dream D morning

5 **disaster**
A police B flood C accident D great misfortune

6 **license**
A driver B permission C illegal D test

7 **rumble**
A low noise B sonic boom C machinery D arm

8 **furious**
A tired B usual C loud D angry

9 **ambition**
A ability B wish C study D desire for success

10 **blunder**
A discourage B success C joke D mistake

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Predicting Outcomes

Good readers make predictions as they read.

Forests in Jeopardy

Since the 14th century, Switzerland's forests have protected mountain villages and farms from avalanches of snow, falling rocks, and earth slides. Until recently the people have protected the forest, but now more than half the trees in the Swiss Alps are showing signs of damage and decay. Air pollution is a major cause of injury to needles and leaves. It also changes the chemistry of the soil, hindering a tree's ability to absorb nutrients.

Another problem is lack of good forestry management. Some areas have been planted with only one type of tree. Many workers lack motivation and training necessary to take proper care of the forest. Neglected forests become a target for bark beetles, which are the most destructive insects in the coniferous forests of the Southwest.

Any time the wind blows over even a few of the weakened trees, additional wind erosion increases the size of the devastated area. The remaining thin layer of soil is quickly washed away by the rain, making new plant regrowth impossible. Now there are fewer leaves to break the impact of rain and snow. At the same time, fewer trees mean fewer roots to absorb water, and floods increase.

Some steps the Swiss have taken include the following: strict pollution laws, emergency care to forests, and planting thousands of tree seedlings.

1 **Describe two possible consequences that might result from forest neglect.**
erosion or flood

2 **What effect may results from some of the measures being taken to preserve Swiss forests?**
healthy forest

3 **What is the ongoing likelihood of stopping the erosion in the Alps? Substantiate your theory.**
Answers will vary.

4 **What would be the logical consequences of doing nothing in the forests?**
Total deforestation and possibility of more floods and erosion.

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The Whole Nine Yards

***Idioms** are expressions that have a figurative meaning that is different from what each individual word means.*
Example: *to be in a pickle means to be in trouble*
Idioms may be unique to certain groups, countries, or regions.
Knowing idioms can improve your comprehension.

What is meant by these common idioms?

1 **Run out of steam:** out of energy
2 **Raining cats and dogs:** pouring rain
3 **Haste makes waste:** Doing something too quickly means you'll probably make mistakes and have to do it again.
4 **Let the cat out of the bag:** give away a secret
5 **Bend over backwards:** willing to do whatever it takes to do something
6 **When it rains it pours:** When trouble comes, it seems to not just be one thing but many.
7 **Saved by the bell:** rescued or escaping something at the last minute
8 **Great minds think alike:** when two or more people think the same thing
9 **Don't put all your eggs in one basket:** Don't count on just one thing; spread your money or your options out.
10 **Don't count your chickens before they've hatched:** Don't count on something before it happens.
11 **Make no bones about it:** speak out about something unapologetically
12 **A piece of cake:** easy to do
13 **Smells something fishy:** something seems wrong
14 **Rise and shine:** to get up and get going
15 **Have an ax to grind:** have a dispute with someone

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Mixed Math Review

Solve the following problems. Show your work.

1 **Hundreds of years ago people wore completed magic squares around their necks for good luck. Here is your chance to try your luck at completing a magic square. Each row, column, and diagonal must add to the same sum. Each number can only be used once. Use the numbers 1 through 9 to reach a total sum of 15 for each row, column, and diagonal.**

8	3	4
1	5	9
6	7	2

2 **Ms. Lopez wants to replace the carpet in her family room. The room is 14 feet by 12 feet. How much carpeting does she need to buy?**
168 sq ft

3 **Fifty one feet equals how many yards?**
17

4 **The zoo crew has fed 72% of the 200 animals living in the reptile house. How many animals have yet to be fed?**
56

5 **Coach Murphy bought 4 times more soccer balls than basketballs. If he bought 82 basketballs, how many soccer balls did he purchase?**
328

6 **Midvale's Baseball Team won 36 games this season. If this is 75% of its games, how many games did the team play?**
48

7 **Miles loves to read books. Over the summer, he read 9 fiction books and 20 nonfiction books. What is the ratio of fiction books to nonfiction books that he read?**
9:20

8 **Cynthia purchased 4 CDs at the mall. The CDs cost $10.96, $12.35, $13.07, and $17.89. What is the mean price of the CDs?**
$13.57

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Spread Your Wings

by Madison Antinazi

A joyless journey, a tragic tale
Throughout which a girl is thinking
"Why must I fail to please my dad?
Why must his love be shrinking?"

I've felt her pain. I've cried her tears
I've traveled through her life
I've witnessed all her troubles,
Her toils and her strife

I feel I want to help her
When no one else would try
This story really touched me
It brought out my family ties

I would be frightened, too, you know,
If I were in her shoes,
With a family who cares not for me,
I'd know not what to do

This girl was born of sorrow
She grew up with the fewest things
One thing she must remember
Is to always spread her wings

After reading the poem, answer the following questions.

1 **Why is the girl in the poem sad?** Her family life is not good or happy.

2 **How does the poet express her empathy?** Answers will vary, but should reflect that the author implies her understanding and empathy by using "I."

3 **What must the girl in the poem remember?** to spread her wings

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A Trash Collector's Work Is Never Done

Brian Kane was a trash collector in Denver, Colorado. Eight hours a day, five days a week, fifty weeks a year, Brian rode on the back of a garbage truck through the streets of this mile high city. At each stop, he would jog quickly to the back of buildings, hen dragging heavy trash cans to the truck. Brian never complained, even when sweat stung his eyes or cold wind turned his fingers into sticks of ice.

Brian saw these hardships as opportunities to become strong and fit. His job was actually a training ground for his lifelong dream: to climb Mount Everest, the highest mountain in the world. On his thirtieth birthday, Brian took a three month leave from his job and flew to Nepal. There he began the long, difficult journey up Mount Everest.

Brian first climbed to a base camp. He stayed there for a couple of weeks to get used to the thinner air. Brian had also planned to bring three oxygen canisters with him to the summit, at 29,028 feet, it would be hard to survive without extra oxygen. Over the next two months, Brian climbed to 26,000 feet, to Camp Four, the last place to rest below the summit. But when Brian saw this camp, he gasped and fell to his knees.

"Trash," he cried. Nearly a thousand empty oxygen canisters littered the camp area. Humans had turned this beautiful, remote place into a giant trash heap. Sad, but determined, Brian continued to follow this dream. Two days later he stood proudly on the peak of Mt. Everest. He had reached the "roof of the world!"

Two days after this great achievement, Brian stuffed a dozen empty oxygen canisters in his pack and headed down the mountain. He smiled to himself as he realized that the work of a trash collector is never done.

Fill in the letter with the best answer for each question.

1 **How does Brian feel about his job as a trash collector?**
A He does not like his job.
B He hates the smell of garbage.
C He likes to work outside and to be in shape.
D He always complains about the hard work.

2 **Why did Brian drop to his knees when he saw the piece of trash on Mount Everest?**
A He missed his job as a trash collector.
B He was so tired he could not stand.
C He realized that pollution and trash are everywhere.
D He wanted to see how many oxygen canisters there were.

3 **What did Brian do after he saw the trash on the mountain?**
A Brian visited the base camp.
B Brian threw to Nepal.
C Brian reached Camp Four.
D Brian climbed to the top of Mount Everest.

4 **Why did Brian carry two empty oxygen canisters down the mountain?**
A He believed even small efforts are important in keeping the Earth clean.
B He thought they are valuable.
C He planned to organize a party.
D He needed to fill the canisters.

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All Alone

Narrative writing tells a story. Usually the story follows a natural time sequence, especially when you are writing about a personal experience. Using questions such as Why? Where? When? How? and Who? you can develop the details to write your narrative story. Always use transitional words such as *first, then, later, soon, after, when, next, or before.*

In this assignment, describe a time in your life **when** you felt totally alone. **Where** were you at this time in your life? **What** caused you to feel alone? **How** did you overcome this lonely feeling? **Who** helped you to recover from your feeling of lone liness?

Answers will vary.

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Measurement Review

Complete each sentence below to review what you know about units of customary measure.

1 A year has 12 months
2 A gallon contains 4 quarts
3 A quart equals 2 pints
4 A group of ten years is called a decade
5 $\frac{1}{60}$ of an hour is a minute
6 $\frac{1}{4}$ of a quart is a cup
7 A year has 52 weeks
8 A minute has 60 seconds
9 Another term for 100 years is a century
10 A non leap year February has exactly 4 weeks
11 Another way to say 12:00 AM is midnight
12 A typical cat might weigh 10 pounds
13 There are 6 units in half a dozen
14 The abbreviation for the weight equivalent to 16 ounces is lb
15 Half a century equal to 50 years
16 A leap year occurs every 4 years

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Read Carefully

***When you proofread** your work, you look for errors and mark them so that you can correct them. Here are some marks you can use when you proofread your work.*

delete	The the phone rang. (never)
insert a word	The rang
insert a comma	The phone rang and I answered.
insert quotation marks	A voice said Hello
insert a period	The phone rang
insert an apostrophe	its ringing again
close up space	The ph one rang
insert a space	Thephone rang
switch order of letters	The phone rang (ei)
capitalize	the phone rang
make lowercase	The pHone rang
start new paragraph	The phone rang

Read the following part of a story. Proofread it using the marks above. There are 13 errors.

The most amazing thing happened this morning. I still can't believe it! Just as I was about to fill one of my feeders, I noticed a chickadee perched on the lower branch of a nearby tree. The little bird seemed to be watching me. Of course, chickadees really like sunflower seeds, and that's what I always put in the feeder. I figured it was probably hungry and just waiting for me to finish up and leave. It was then that I got this great idea.

Chickadees are supposed to be easy to hand tame, well the chickadee was still perched on the tree, and I had the seeds, so I decided to try. I took a bunch of seeds, held out my hand, pamm up next to the feeder, and stood very still. I didn't even scratch my nose when it started to itch! About a minute later, the chickadee flew to the tree closest to the feeder. I held my breath and waited. The didn't fly to my hand, but I did fly to the feeder! It took a seed and flew off to eat it. I knew it would be back, so I continued to watch and wait.

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THIS CERTIFIES THAT

_____

IS NOW READY

FOR GRADE _____

CONGRATULATIONS!

I'm proud of you! _____