

# JCPS NTI Grade 7 Mathematics Packet #2



## Grade 7 Mathematics

### Student At-Home Activity Packet

This At-Home Activity Packet is intended for a two-week period, and it includes lessons that your student may complete across more than one day.

The practice problems align to important math concepts your student has worked with so far this year.

Specific instructions to guide your student are found at the top of each page.

Encourage your student to do the best they can with this content—the most important thing is that they continue developing their mathematical fluency and skills.

See the Grade 7 Math  
concepts covered in  
this packet!



# Solving Multi-Step Ratio Problems

► **Solve each problem.**

- 1 At The Green House of Salad, you get a \$1 coupon for every 3 salads you buy. What is the least number of salads you could buy to get \$10 in coupons?
- 

- 2 Kim orders catering from Midtown Diner for \$35. She spends \$5 on a large order of potato salad and the rest on turkey sandwiches. Each sandwich is \$2.50. How many sandwiches does Kim buy?
- 

- 3 Molly and Liza are exercising. Molly does 10 push-ups at the same time as Liza does 15 push-ups. When Molly does 40 push-ups, how many push-ups does Liza do?
- 

- 4 A shark swims at a speed of 25 miles per hour. The shark rests after 40 miles. How long, in minutes, does the shark swim before resting?
- 

- 5 Ali and Janet are selling gifts at a local craft show. For every bar of soap that Ali sells, she earns \$5. For every mug that Janet sells, she earns twice as much as Ali. Ali sells 5 bars of soap, and Janet sells 7 mugs. How much money did they make altogether?
- 

- 6 Ted is making trail mix for a party. He mixes  $1\frac{1}{2}$  cups of nuts,  $\frac{1}{4}$  cup of raisins, and  $\frac{1}{4}$  cup of pretzels. How many cups of pretzels does Ted need to make 15 cups of trail mix?
- 

- 7 The ratio of chaperones to students on a field trip is 2 : 7. There are 14 chaperones on the field trip. In all, how many chaperones and students are there?
- 

- 8 Dayren is driving to visit family. She drives at an average of 65 miles per hour. She drives 227.5 miles before lunch and then 97.5 miles after lunch. How many hours did she spend driving?
-

# Solving Problems Involving Multiple Percents

► **Solve each problem.**

- 1 A chair's regular price is \$349. It is on clearance for 30% off, and a customer uses a 15% off coupon after that. What is the final cost of the chair before sales tax?
- 2 A calculator is listed for \$110 and is on clearance for 35% off. Sales tax is 7%. What is the cost of the calculator?
- 3 Cara started working for \$9 per hour. She earns a 4% raise every year. What is her hourly wage after three years?
- 4 A factory manufactures a metal piece in 32 minutes. New technology allowed the factory to cut that time by 8%. Then another improvement cut the time by 5%. How long does it take to manufacture the piece now? Round your answer to the nearest minute.
- 5 An apartment costs \$875 per month to rent. The owner raises the price by 20% and then gives a discount of 8% to renters who sign an 18-month lease. How much less do renters who sign an 18-month lease pay per month to rent the apartment?

## Solving Problems Involving Multiple Percents *continued*

- 6 Damon buys lumber worth \$562. He gets a 20% contractor's discount. The sales tax is 6%. His credit card gives him 2% off. How much does he pay?
- 7 Cindy is shopping for a television. The original price is \$612. Store A has the television on clearance for 30% off. Store B has it on clearance for 25% off, and Cindy has a 10% off coupon to use at Store B. At which store will she pay less? How much less?
- 8 John goes to a restaurant and has a bill of \$32.57. He uses a 10% off coupon on the cost of the meal. The tax is 8%. He leaves a tip of 18% on the amount before the coupon or tax is applied. How much does he spend?
- 9 Explain which situation will give you the best price: a discount of 15% and then 10% off that amount, a discount of 10% and then 15% off that amount, or a discount of 25%.

# Solving Problems Involving Percent Change

► Find the percent change and tell whether it is a percent increase or a percent decrease.

1 Original amount: 20  
End amount: 15

---

2 Original amount: 30  
End amount: 45

---

3 Original amount: 625  
End amount: 550

---

4 Original amount: 320  
End amount: 112

---

5 Original amount: 165  
End amount: 222.75

---

6 Original amount: 326  
End amount: 423.80

---

7 Original amount: 27  
End amount: 38.61

---

8 Original amount: 60  
End amount: 70.02

---

9 How do you know when a situation involves a percent increase or a percent decrease?

# Solving Problems Involving Percent Error

► Solve each problem. Round to the nearest hundredth of a percent if needed.

1 Mrs. Rowan allotted 30 minutes at the beginning of class for her students to complete an exam. The last student took 42 minutes to complete the exam. What is Mrs. Rowan's percent error?

---

2 Harper needs to mail an envelope. She weighs it at home as 10.4 ounces. When she gets to the post office, the clerk weighs it at 9.6 ounces. What is the percent error in the weight of the envelope?

---

3 An airline ticket states that the flight takes 2 hours and 45 minutes. The flight time is actually 2 hours and 54 minutes. What is the percent error in the flight time?

---

4 Luna buys a shirt that costs \$15.65. She gives the cashier \$20 and receives \$3.25 in change. What is the percent error in the amount of change she was given?

---

5 Judy thinks there will be 325 people at the county fair on Friday, while Atticus thinks there will be 600 people. On Friday, 452 people attend the fair. Who is closer in their estimate? What is the difference between the percent errors?

---

6 Sussex County received 43 inches of rainfall this year. The percent error in the local meteorologist's rainfall prediction was about 18.02%. What are two possible values for the meteorologist's prediction?

---

# Expanding Expressions

► Expand each expression and combine like terms if possible.

1  $4(x - 2)$

---

2  $-3(x + 7)$

---

3  $-4(-x - 8)$

---

4  $\frac{1}{3}(x - 9)$

---

5  $-\frac{1}{4}(x + 16)$

---

6  $-\frac{1}{5}(-x - 35)$

---

7  $\frac{2}{3}(x + 18 - 2x)$

---

8  $\frac{3}{4}(16x - 27 - 1)$

---

9  $-12\left(\frac{5}{6}x - 5\right) + 2x$

---

► Determine which expressions, if any, are equivalent. Show your work.

10  $4(x - 3)$

$6x - 2(x - 3)$

$x + 3(x - 2) - 6$

## Expanding Expressions *continued*

11  $\frac{1}{3}(9x + 16 + 2) + 2x$

$7x + 14 - 2(x + 4)$

$x - 3 + 7(x + 3) - 3x - 12$

12 Use two different methods to expand  $\frac{1}{4}(x + 2x + 16 - 8)$ .

# Factoring Expressions

► Factor each expression.

1  $8a + 16$

---

2  $12x - 20$

---

3  $-6a + 18$

---

4  $-14w - 21$

---

5  $8a - 12b + 28$

---

6  $-6x + 15y - 24$

---

7  $2a + 3 + 7a$

---

8  $-2x - 8x + 20$

---

9  $5y + 10 - 25y$

---

10 Simplify  $(4x + 7) - (-3x - 9) + 9x - 28$ . Then rewrite in factored form, if possible.  
Show your work.

## Factoring Expressions *continued*

11 Determine which of the following expressions are equivalent. Show your work.

- $\frac{1}{6}(x - 3)$

- $\frac{1}{4}x - \frac{3}{5} - \frac{1}{12}x + \frac{1}{10}$

- $\frac{1}{18}x + \frac{1}{9}x - \frac{1}{2}$

12 Explain a different method you could use to solve problem 11.

# Writing and Solving Equations with Two or More Addends

► Solve each equation. The answers are mixed up at the bottom of the page. Cross out the answers as you complete the problems.

1  $8x + 15 = 63$

---

2  $9x - 13 = 23$

---

3  $135 = 2x + 25$

---

4  $33 = 32x - 31$

---

5  $12x - 16 = 68$

---

6  $7x + 115 = 136$

---

7  $82 = 4x + 14$

---

8  $2x - 56 = 34$

---

9  $3x - 4\frac{1}{2} = -19\frac{1}{2}$

---

10  $10 = -\frac{1}{4}x + 12$

---

11  $6x + 4.59 = 11.19$

---

12  $25.68 = 2x - 6.32$

---

## Answers

$x = 1.1$

$x = 45$

$x = -5$

$x = 6$

$x = 7$

$x = 16$

$x = 4$

$x = 55$

$x = 17$

$x = 8$

$x = 2$

$x = 3$

# Writing and Solving Inequalities

► Write and solve an inequality to answer each question.

1 Tetsuo has 50 arcade tokens. Each arcade game at RetroRama costs 4 tokens. How many games can Tetsuo play?

---

---

2 Kimberly has \$120 to spend at the bookstore. Kimberly buys a hardcover book for \$36, as well as some gift cards for her family and friends. Each gift card is \$15. How many gift cards can Kimberly buy?

---

---

3 Kwame has a budget of \$720 for his college class. He buys a laptop for \$330 and wants to use the rest to buy computer programs. Each program costs \$60. How many programs can Kwame purchase?

---

---

4 A farmer ties 4 bags on his mule. If the mule can carry up to 200 lb and each bag weighs 30 lb, how many more bags can the mule carry?

---

---

## Writing and Solving Inequalities *continued*

- 5 Helga signs up to coach hockey. She wants to make at least \$775 during the season. She gets \$200 at the start of the season and \$50 for each practice session she has. How many practice sessions does Helga need to have this season?

---

---

- 6 Logan has a budget of \$400 to have family pictures taken. There is a sitting fee of \$38. Prints cost \$25 per page. How many pages of prints can Logan order?

---

---

- 7 At TopLine's 50th anniversary celebration, managers and assistants earn custom-engraved plaques in recognition of their outstanding performance. TopLine purchased a total of 81 plaques for the event. The company gives 25 plaques to the managers and at least 2 plaques to each assistant. What is the maximum number of assistants at the event?

---

---

- 8 A cartoonist has 150 pieces of original artwork to give to his publishers and some fans who won his online contest. He plans to send 30 drawings to his publishers. He is sending at least 3 pieces of artwork to each contest winner. How many contest winners could there be?

---

---



# Grade 7 Reading

## Student At-Home Activity Packet 1

This At-Home Activity Packet is intended for a two-week period, and it includes lessons that your student may complete across more than one day.

Most lessons can be completed independently. However, there are some lessons that may benefit from the support of an adult. If there is not an adult available to help, don't worry! Just skip those lessons. A teacher will be in touch soon and the your student can ask for help.

Encourage your student to do the best they can with this content. The most important thing is that they continue to work on their reading!

Flip to see the Grade 7  
Reading activities  
included in this packet!



# Lesson 1

## Misplaced Modifiers



### Introduction

A **misplaced modifier** is a phrase or clause that is intended to modify a certain word in a sentence but is in the wrong place. As a result, it connects the wrong words or ideas to each other and confuses the reader. For example:

We sat and talked about camping **in the kitchen**.

- The phrase *in the kitchen* is meant to modify *sat*, but instead it suggests that the camping happened in the kitchen. Now, look at another example.

I served breakfast to my family, **which I made myself**.

- The clause *which I made myself* is misplaced. It suggests that the speaker made her family, not breakfast.
- To fix a misplaced modifier, move it as close as possible to what it should modify:

We sat **in the kitchen** and talked about camping.

I served my family breakfast, **which I made myself**.



### Guided Practice

**Rewrite each sentence to correct the misplaced modifier.**

#### Hint

If a dependent clause begins with the relative pronoun *who* or *which* and gives information that is not crucial to the meaning of the sentence, use commas to set off the clause from the rest of the sentence.

#### Example:

The muffins, *which smelled delicious*, were still warm.

- 1 I baked blueberry muffins and scrambled some eggs in the oven.  
\_\_\_\_\_
- 2 My cousin Rob told us while he ate where he and Josh had camped.  
\_\_\_\_\_
- 3 Rob had taken my nine-year-old brother camping, who is in college.  
\_\_\_\_\_
- 4 Rob had photos of the lovely lake on his phone near their campsite.  
\_\_\_\_\_
- 5 We put a drawing of the lake on the fridge that Josh had made.  
\_\_\_\_\_



## Independent Practice

For numbers 1–4, choose the answer that best corrects the misplaced modifier in each sentence.

### Answer Form

1 (A) (B) (C) (D)

2 (A) (B) (C) (D)

3 (A) (B) (C) (D)

4 (A) (B) (C) (D)

Number  
Correct

4

- 1** Rob told us about hearing a strange noise in the night after breakfast.
- A** After breakfast, Rob told us about hearing a strange noise in the night.
- B** Rob told us about hearing a strange noise after breakfast in the night.
- C** After breakfast, Rob told us in the night about hearing a strange noise.
- D** In the night, Rob heard a strange noise that after breakfast he told us about.

- 2** Dad let Josh borrow his fishing rod to take on the trip, which was old but still worked.
- A** Josh borrowed for the trip, which was old but still worked, Dad's fishing rod.
- B** For the trip, Dad let Josh borrow his fishing rod, which was old but still worked.
- C** To take on the trip, Josh borrowed a fishing rod from Dad, which was old but still worked.
- D** The fishing rod that Josh borrowed to take on the trip from Dad was old but still worked.

- 3** Rob told us how Josh had caught a fish as he was washing the dishes.
- A** Rob as he was washing the dishes told us how Josh had caught a fish.
- B** Josh told us that, as Rob was washing the dishes, he had caught a fish.
- C** Josh had caught a fish, and Rob was washing the dishes and told us about it.
- D** As Rob was washing the dishes, he told us how Josh had caught a fish.

- 4** Next summer my cousin invited me to go camping by the lake with his family.
- A** My cousin invited me to go camping by the lake with his family next summer.
- B** By the lake next summer, my cousin invited me to go camping with his family.
- C** My cousin by the lake invited me next summer to go camping with his family.
- D** My cousin with his family next summer invited me to go camping by the lake.

## Lesson 2

# Dangling Modifiers



### Introduction

A **dangling modifier** is a phrase or clause intended to modify a certain word, but that word is not actually stated in the sentence, or it is stated but the dangling modifier seems to modify a different word. Below are two sentences with dangling modifiers:

Driving past the mountains, they were snow-covered and majestic.  
After traveling all day, the motel was a welcome sight.

In the sentences above, who was driving past the mountains? Who was traveling all day?

- One way to fix a dangling modifier is to add the word that was meant to be modified, often by making it the subject of the sentence.

Driving past the mountains, we saw that they were snow-covered and majestic.

- Another way to fix a dangling modifier is to make it a dependent clause with its own subject. You might also have to rearrange the sentence.

The motel was a welcome sight after we had been traveling all day.



### Guided Practice

**Rewrite each sentence to correct the dangling modifier.**

#### Hint

To correct a dangling modifier, you might need to reword other parts of the sentence completely.

- 1 Sleeping soundly through the night, my bed was comfortable.

---

- 2 After eating a good breakfast, the cave tour sounded more fun.

---

- 3 Before leaving for the cave tour, the brochure gave us directions.

---

- 4 Climbing into the car, my camera dropped and broke.

---

- 5 Waiting in line for the tour, clouds started forming.

---



## Independent Practice

For numbers 1–4, choose the revision that best corrects the dangling modifier in each sentence.

- 1** Explaining how the cave was made, we learned some amazing facts from the guide.
- A** While learning how the cave was made, the guide told us some amazing facts.
  - B** Learning some amazing facts, the guide explained how the cave was made.
  - C** Explaining some amazing facts, we learned from the guide how the cave was made.
  - D** As the guide explained how the cave was made, we learned some amazing facts.

- 2** Walking out of the cave, a cloudburst soaked Emilia.
- A** A cloudburst soaked Emilia as she was walking out of the cave.
  - B** Walking out of the cave was a cloudburst that soaked Emilia.
  - C** Emilia was soaked as she walked out of the cave by a cloudburst.
  - D** A cloudburst out of the cave soaked Emilia as she was walking.

### Answer Form

- 1 (A) (B) (C) (D)  
2 (A) (B) (C) (D)  
3 (A) (B) (C) (D)  
4 (A) (B) (C) (D)

Number Correct  4

- 3** Buying souvenirs at the gift shop, the clerk showed Ty some hats.
- A** The clerk showed Ty some hats, buying souvenirs at the gift shop.
  - B** While Ty was buying souvenirs at the gift shop, the clerk showed him some hats.
  - C** Buying souvenirs, the clerk at the gift shop showed Ty some hats.
  - D** While the clerk showed Ty some hats, he was buying souvenirs at the gift shop.

- 4** Driving home, the rain stopped for a few minutes.
- A** Driving home for a few minutes, the rain stopped.
  - B** The rain stopped driving home for a few minutes.
  - C** For a few minutes driving home, the rain stopped.
  - D** As we were driving home, the rain stopped for a few minutes.

# Citing Evidence to Make Inferences

Theme: *The Competitive Spirit*

When you **analyze** something, you examine its parts to see how they work together. For example, you might analyze how the parts of a bicycle work to help a person move forward.

Reading involves analyzing, too. When you analyze a text, you sometimes look at what the text says **explicitly**, or directly. “The crowd clapped and cheered wildly when the home team won” is an example of explicit information because you know what happened and why. Other times, though, you must make an inference to figure out what the text is really saying. An **inference** is a reasonable guess based on textual evidence and what you already know.

**Find the slowest runner in the picture below. Is he sad about losing? How can you tell?**



**Circle details in the picture that support an inference that the runner isn't sad about losing. Then complete the chart below to describe what details support this inference.**

| Text Evidence  | + Background Knowledge =   | Inference  |
|--|--|--|
| <ul style="list-style-type: none"> <li>The expression on the runner's face is _____.</li> <li>This runner says _____.</li> </ul> | <p>A person who loves a sport also enjoys participating in it.</p> | <p>The runner is just happy to compete. Competing is more important to him than winning.</p> |

To get the most out of your reading, you must analyze texts to understand what they say directly and make inferences about what they say indirectly. When you find evidence to make and support inferences, you'll find you won't get stuck as often trying to figure out what a text is saying—like when a bike is stuck in gear and can't move forward.



Read the first three paragraphs of an article that showcases Michael Jordan.

Genre: Article

# The Flu Game *by Maureen McBride*

Game 5 of the 1997 basketball playoffs should have been the game that the Chicago Bulls lost. It should, in fact, have marked the Utah Jazz's first NBA championship win. Michael Jordan, the Bulls' star player, had spent the previous 24 hours bedridden and dehydrated with what doctors had diagnosed as the stomach flu. He had lost weight and had missed two key days of practice leading up to the game. It was a recipe for disaster.

But three hours before the start of Game 5, the best player in the history of basketball suited up and appeared on the court.

Though Jordan was visibly weak in the first quarter, he had scored 17 points by the second, putting the Bulls ahead at half time. However, while Jordan spent the third quarter overcome by nausea and fatigue, Utah managed to reclaim the lead.

*(continued)*

**Explore how to answer these questions:** "What is Michael Jordan's attitude toward competition? What text evidence supports your idea?"

Michael Jordan's attitude is not stated, so you must use evidence in the text to infer what he thinks.

**Look for evidence of Jordan's feelings about competition. One detail is shown in the chart below. Write another detail in column 1. Use this information to complete the inference in the last column.**

| Text Evidence  | + | Background Knowledge  | = | Inference  |
|--|---|---|---|--|
| <ul style="list-style-type: none"> <li>Jordan was diagnosed with the flu before Game 5.</li> <li></li> </ul> |   | <ul style="list-style-type: none"> <li>Jordan's team depended on him greatly.</li> <li>Playing sports while sick requires determination.</li> </ul> |   | <p>Michael believes that competition</p> <p>_____.</p> |

**What text evidence supports the inference that Michael Jordan is a fierce competitor? With a partner, find evidence in the article that supports your answer, and write it on the lines below.**

---



---



### Close Reading

Which sentence best shows that Jordan is a talented player? Find and **underline** a sentence on this page showing this.

**Continue reading about Michael Jordan in “The Flu Game.” Use the Close Reading and the Hint to help you answer the question.**

*(continued from page 20)*

“In the third quarter, I felt like I couldn’t catch my wind,” Jordan said. “I was just trying to get myself through it.”

In the fourth quarter, Jordan scored 18 more points. Then, with only 25 seconds left in the game, he scored a 3-point shot, and the Bulls beat the Jazz by only two points. At the end of the game, Jordan collapsed into the arms of his teammate Scottie Pippen.

“I almost played myself into passing out just to win a basketball game,” Jordan admitted later. “If we had lost, I would have been devastated.”

### Hint

Look for the choice that shows Jordan’s talent, not his dedication or his luck.

**Circle the correct answer.**

Which sentence from the passage best supports the idea that Michael Jordan is a talented basketball player?

- A** “‘In the third quarter, I felt like I couldn’t catch my wind,’ Jordan said. ‘I was just trying to get myself through it.’”
- B** “In the fourth quarter, Jordan scored 18 more points.”
- C** “Then, with only 25 seconds left in the game, he scored a 3-point shot, and the Bulls beat the Jazz by only two points.”
- D** “‘I almost played myself into passing out just to win a basketball game,’ Jordan admitted later.”



### Show Your Thinking

Michael Jordan is a dedicated basketball player. Find and write down a sentence from the passage that supports this statement. Then explain your answer.

---



---



---



With a partner, make an inference about why Michael Jordan collapsed into Scottie Pippen’s arms. Support your inference with evidence from the text and background knowledge.



Read the following historical account. Use the Study Buddy and the Close Reading to guide your reading.



As I read, I'll look for evidence that tells more about each explorer. Then I can make inferences about what each one was like.

## Close Reading

What factors led to Scott's failure? **Underline** details from the text that show the kind of trouble he and his men ran into.

What did Amundsen have going for him that Scott did not? **Circle** details that show Amundsen's advantages.

Genre: Historical Account

## Race to Reach the South Pole: Scott vs. Amundsen *by Alarik Fjelstad*

- 1 In 1911, Englishman Robert Falcon Scott and Norwegian Roald Amundsen raced to reach the South Pole first. Scott, captain of the *Terra Nova*, had nearly made it to the South Pole seven years earlier. He was confident he would succeed this time. Scott publicly announced that he would be using the latest in technology: motor sleds. He recruited scientists, sailors, and even a paying guest who insisted on bringing ponies to the coldest place on Earth.
- 2 Amundsen worried that competitors might try to prevent his attempt to reach the South Pole. He refused to share his dream with anyone, including his shipmates. Amundsen finally told his men where they were going midway through the Atlantic. Though he told them they could quit, they decided to continue the journey with him. They were all veteran Arctic explorers trained to use skis and sled dogs. At this time, Amundsen sent Scott an unsettling telegram telling him he was on his way to Antarctica.
- 3 Both vessels landed in Antarctica in January of 1911, but Amundsen set up his base camp deep inland on ice, while Scott made camp at the shoreline. With expert planning, Amundsen and his crew arrived at the South Pole with sled dogs on December 15, 1911. Meanwhile, Scott's motor sleds failed to work in the minus 40 degree Celsius cold, and the ponies died and were eaten by Scott's crew. Scott arrived at the Pole 33 days after Amundsen and was shocked to find the Norwegian flag. Disillusioned and weak, Scott and his men died of starvation on the return trip, just 11 miles from their nearest supply station.



### Hints

Which choice provides evidence that Amundsen was not very trusting?

Think about what finally happened to Scott and his men. Which choice explains their fate?

What did Amundsen have in his favor that Scott did not? Think about his shipmates and forms of transportation.

Use the Hints on this page to help you answer the questions.

1 A student makes the following inference about Captain Amundsen:

Amundsen was a very secretive person.

Which sentence from the text best supports this inference?

- A "... Admundsen set up his base camp deep inland on ice, while Scott made camp at the shoreline."
- B "Admundsen finally told his men where they were going midway through the Atlantic."
- C "At this time, Amundsen sent Scott an unsettling telegram telling him he was on his way to Antarctica."
- D "Scott arrived at the Pole 33 days after Amundsen and was shocked to find the Norwegian flag."

2 Based on the text, which of the following statements explains why Scott and his men were unsuccessful?

- A Scott and his men were not truly prepared for the trip's hardships.
- B Scott planned to use outdated technology on the trip.
- C The English expedition camped at the shoreline instead of inland.
- D They were unfamiliar with the challenge of Arctic exploration.

3 Explain why Amundsen succeeded. Include at least two details from the text that support your inference about what led to his success.

---

---

---

---

---

---

---

---

---

---

---

---



Read this excerpt from a back-to-school speech. Then answer the questions that follow.

## from “The President’s Speech to Students”

*by President Barack Obama*

1 You’re this country’s future. You’re young leaders. And whether we fall behind or race ahead as a nation is going to depend in large part on you. So I want to talk to you a little bit about meeting that responsibility.

2 It starts, obviously, with being the best student that you can be. Now, that doesn’t always mean that you have to have a perfect score on every assignment. It doesn’t mean that you’ve got to get straight As all the time—although that’s not a bad goal to have. It means that you have to stay at it. You have to be determined and you have to persevere. It means you’ve got to work as hard as you know how to work. And it means that you’ve got to take some risks once in a while. You can’t avoid the class that you think might be hard because you’re worried about getting the best grade if that’s a subject that you think you need to prepare you for your future. You’ve got to wonder. You’ve got to question. You’ve got to explore. And every once in a while, you need to color outside of the lines.

3 That’s what school is for: discovering new passions, acquiring new skills, making use of this incredible time that you have to prepare yourself and give yourself the skills that you’re going to need to pursue the kind of careers that you want. And that’s why when you’re still a student you can explore a wide range of possibilities. One hour you can be an artist; the next, an author; the next, a scientist, or a historian, or a carpenter. This is the time where you can try out new interests and test new ideas. And the more you do, the sooner you’ll figure out what makes you come alive, what stirs you, what makes you excited—the career that you want to pursue. . . .

4 So that’s a big part of your responsibility, to test things out. Take risks. Try new things. Work hard. Don’t be embarrassed if you’re not good at something right away. You’re not supposed to be good at everything right away. That’s why you’re in school. The idea, though, is that you keep on expanding your horizons and your sense of possibility. Now is the time for you to do that. And those are also, by the way, the things that will make school more fun.

5 Down the road, those will be the traits that will help you succeed, as well—the traits that will lead you to invent a device that makes an iPad look like a stone tablet. Or what will help you figure out a way to use the sun and the wind to power a city and give us new energy sources that are less polluting. Or maybe you’ll write the next great American novel. . . .

6 But I also want to emphasize this: With all the challenges that our country is facing right now, we don’t just need you for the future; we actually need you now. America needs young people’s passion and their ideas. We need your energy right now. I know you’re up to it because I’ve seen it. Nothing inspires me more than knowing that young people all across the country are already making their marks. They’re not waiting. They’re making a difference now. . . .



7 There are students like Will Kim from Fremont, California, who launched a nonprofit that gives loans to students from low-income schools who want to start their own business. Think about that. So he's giving loans to other students. He set up a not-for-profit. He's raising the money doing what he loves—through dodgeball tournaments and capture-the-flag games. But he's creative. He took initiative. And now he's helping other young people be able to afford the schooling that they need...

8 The point is you don't have to wait to make a difference. Your first obligation is to do well in school. Your first obligation is to make sure that you're preparing yourself for college and career. But you can also start making your mark right now. A lot of times young people may have better ideas than us old people do anyway. We just need those ideas out in the open, in and out of the classroom...

9 When I meet young people like yourselves, when I sit and talk to [a student at this school], I have no doubt that America's best days are still ahead of us, because I know the potential that lies in each of you. Soon enough, you will be the ones leading our businesses and leading our government. You will be the one who are making sure that the next generation gets what they need to succeed. You will be the ones that are charting the course of our unwritten history. And all that starts right now—starts this year...

**1** Which of these statements is **not** supported by the remarks made in President Obama's speech?

- A** Work hard in school and try out new possibilities.
- B** While in school, acquire a variety of skills and interests.
- C** Figure out different ways to become energetic leaders.
- D** Explore a wide range of ideas and career options.

**2** What evidence from the speech **best** shows how students can prepare themselves for the future?

- A** Students need to act responsibly during their time in school.
- B** Students should focus on courses that will help them earn good grades.
- C** Students should realize that they will not excel at everything that they try.
- D** Students need to try new possibilities to discover what excites them.

**Answer Form**

1 (A) (B) (C) (D)

2 (A) (B) (C) (D)

3 (A) (B) (C) (D)

**Number  
Correct**

3



**3** Which sentence from the passage **best** supports the idea that President Obama thinks students must take responsibility for their own futures?

- A** “Now, that doesn’t always mean that you have to have a perfect score on every assignment.”
- B** “Down the road, those will be the traits that will help you succeed, as well—the traits that will lead you to invent a device that makes an iPad look like a stone tablet.”
- C** “Your first obligation is to make sure that you’re preparing yourself for college and career.”
- D** “Soon enough, you will be the ones leading our businesses and leading our government.”

**4** Read the statement below, and then answer the question that follows it.

President Obama believes that creativity is a valuable trait for people to have.

Explain how you can tell that the above statement is true. Write a paragraph responding to this question. Use at least **two** details from the passage to support your response.

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

**Self Check** Go back and see what you can check off on the Self Check on page 2.

Read the essay. Then answer the questions that follow.

# The Middle of Nowhere

by Brendan Wolfe

1 Every year my dad’s family gathers up its members from the four corners of the known world and invites them home for a reunion. Home for us is a treeless patch of landscape that we have fondly dubbed the Middle of Nowhere. This is where Dad and his sisters grew up, and in addition to a patchwork quilt of corn and soybean fields, the area features an occasional rotten-wood barn and steel silo. Before I was born, my family all moved away, and at that very moment time seems to have stopped in this place. The corn and beans must have been planted by someone, but that’s the only evidence that people still live here.

2 Although we live only a few miles down the Interstate, my dad is the only one who knows for sure how to get back to his old home. Actually, it might be an exaggeration to say that he knows for sure. As often as not he gets us all lost, which is why we call it the Middle of Nowhere in the first place.

3 Anyway, this year’s reunion was a classic example. Dad piled my brother and me into our station wagon, along with folding chairs, badminton gear, and a cooler full of sandwiches, and we weighed anchor for the Middle of Nowhere. Like a captain of the high seas, he welcomed us aboard ship and then gruffly warned us to maintain our discipline lest we be forced to walk the plank.

4 “Can we use a GPS this year, Dad?” I asked. My friends’ parents used them and they never got lost.

5 “I insist that you call me captain,” Dad snapped, before indicating that all electronic directional devices were absolutely *verboten*.

6 “What does ‘verboten’ mean?” I asked.

7 Just then we passed an old gas station. By “old,” I mean ancient—older even than my dad. The gas pumps were candy-apple red and round at the top, and they looked nothing like they’re supposed to. (Where, for instance, are you supposed to swipe your credit card?) The main building, meanwhile, leaned a bit and to my eyes was just barely standing.

8 “This is where we used to go for a soda pop when I was a kid,” Dad said, excitedly pointing at the old wreck.

9 “Why do you say ‘soda pop?’” I asked, but Dad, as usual, ignored me. Instead, he explained that this is where we turned off the Interstate.

10 Soon we were deep amongst the tall rows of corn. At the bottom of a hill, it was impossible to see where you were, but the landscape rolled, like the waves of an ocean. When you crested a wave, you could see for miles.

11 “You see that crossroads?” Dad asked as the out-of-breath Pontiac finally reached the peak of a particularly steep hill. At first it looked no different from any other crossroads, whether here or anywhere else in the world. Then I noticed a slight anomaly: the dirt roads did not meet at quite a right angle. Instead, one of them arrived having had to scoot around one of those rotten-wood barns. This was Danny Flynn’s barn, apparently, and Danny Flynn had been born ornery. When the county wanted to cut its road through Danny Flynn’s property, Danny Flynn folded his arms, spat in the dirt, and said, “No, sir.” No matter how much money the county offered, the old farmer refused to move his barn. He even amended his last will and testament to make sure that no relative of his ever moved it, either.

12 “We only ever called him Danny Flynn,” Dad said. “Never Mr. Flynn. It just seemed more respectful somehow. We always knew he fancied your grandmother, doing odd jobs for her whenever he could. Helping her out—that was the only time the old man ever smiled, I think.”

13 “What do you mean ‘fancied’?” I asked.

14 “We’re close now,” my dad said. Past Danny Flynn’s barn we should turn right at the ball field where Dad played shortstop on Saturdays, then, after a quarter of a mile, the “old homestead,” as Dad called it, should be just over the hill. “Land ho!” Dad always called when he spied it.

15 As the Pontiac puffed along, however, the ball field never showed up. “Where did it go?” I wondered aloud, and then my little brother, who prefers snoozing through car trips, startled awake. “What’s going on?” he said, rubbing his eyes.

16 “The best-laid plans of mice and men often go awry,” Dad mumbled, pulling the car over.

17 When we looked at him quizzically, he admitted that we must be lost. “My memory’s not what it used to be,” he explained.

18 “Then why not use a map?” I snorted in disgust. Those endless stalks of green corn seemed at this point to be mocking me.

19 “You still don’t get it, do you?” Dad said after a long pause. “My memories *are* my map.”

20 I’m not afraid to admit that this, finally, shut me up. After all, when you’re in the Middle of Nowhere, what better than a map that tells stories?

---

**22**

This question has two parts. First, answer part A. Then, answer part B.

**Part A**

What does the word “ornery” mean as it is used in paragraph 11 of the essay?

- A unruly
- B grouchy
- C contrary
- D awkward

**Part B**

Which of the phrases from the essay **best** helps the reader understand the meaning of “ornery”?

- A “folded his arms”
- B “the old farmer refused to move his barn”
- C “We always knew he fancied your grandma”
- D “that was the only time the old man ever smiled,”

**23** Read the partial summary of "The Middle of Nowhere."

A father travels with his family to a family reunion. Along the way, he points out places that he remembers from his childhood. Each of these settings is accompanied by a story about people or events of his past.

Select **two** sentences that should be included in a summary of key ideas of the essay.

- A** They pass an old gas station where he used to buy soda pop.
- B** The son is frustrated by his dad's unwillingness to use aids to find the way.
- C** The father grew up in an area called the Middle of Nowhere.
- D** The father may not recall the way to his childhood home, but he has no difficulty recalling the past.
- E** They talked about Danny Flynn who fancied the children's grandmother.
- F** They all piled into the old Pontiac station wagon for the long trip.

**24** The following statement is a conclusion based on the information in the text.

The narrator's father is not comfortable with the fact that he does not know the area as well as he used to.

Which sentence from the essay **best** supports this conclusion?

- A** "This is where Dad and his sisters grew up, and in addition to a patchwork quilt of corn and soybean fields, the area features an occasional rotten-wood barn and steel silo."
- B** "Although we live only a few miles down the Interstate, my dad is the only one who knows for sure how to get back to his old home."
- C** "'This is where we used to go for a soda pop when I was a kid,' Dad said, excitedly, pointing at the old wreck."
- D** "'The best-laid plans of mice and men often go awry,' Dad mumbled, pulling the car over."

**25** Which statement **best** expresses the narrator’s point of view at the end of the essay?

- A** He is embarrassed by his father’s childhood home.
- B** He appreciates the opportunity to learn more about his father.
- C** He worries that his father is aging and his memory is failing.
- D** He is amused by his father’s reflections on the past.

**26** Why do the narrator and his family refer to his dad’s childhood home as “the Middle of Nowhere”? Use **two** details from the essay to support your response.

---

---

---

---

---

---

---

---

## Lesson 12

# Greek and Latin Word Parts



### Introduction

Many English words have Greek and Latin roots and affixes.

- A **root** is a word part that contains the core meaning of the word. In the word *science*, for example, the root *sci* means “knowledge.”

| Root         | Meaning      | Root               | Meaning       |
|--------------|--------------|--------------------|---------------|
| <i>belli</i> | “war”        | <i>flect, flex</i> | “bend”        |
| <i>tract</i> | “draw, pull” | <i>sci</i>         | “knowledge”   |
| <i>hydr</i>  | “water”      | <i>form</i>        | “shape, form” |

- An **affix** is a word part added to a root. Affixes include **prefixes**, which come before the root, and **suffixes**, which come after the root.

| Prefix           | Meaning           | Suffix              | Meaning               |
|------------------|-------------------|---------------------|-----------------------|
| <i>de-, dis-</i> | “do the opposite” | <i>-ous, -ious</i>  | “characterized by”    |
| <i>re-</i>       | “again, anew”     | <i>-ent</i>         | “inclined to”         |
| <i>con-</i>      | “with”            | <i>-able, -ible</i> | “capable of, tending” |



### Guided Practice

Read the passage. Circle the roots in the underlined words. On a separate piece of paper, write the meanings of the word parts and define the word.

#### Hint

A root’s meaning will sometimes not fit well with the definition of the word. You’ll need to make an inference (an educated guess) to see the connection between the root and the meaning.

My dog Sam has a belligerent personality. The moment he becomes conscious of a cat, he gives chase. No matter what I do to distract him, nothing works. The problem is intractable.

One day, Sam approached a stray cat, which raised its spiky fur, bared its teeth, and took off after *him*. Sam returned later, dehydrated, hot, and humble. But did Sam reform his behavior? No! My dog is just too inflexible to change his habits.



## Independent Practice

For numbers 1–4, read each sentence. Then answer the question.

- 1** When I bring Sam his leash for a walk, his response is effusive.

The prefix *ef-* means “out,” and the root *fus* means “pour.” What is the meaning of effusive as it is used in the sentence?

- A** showing quiet pleasure
- B** showing great enthusiasm
- C** showing boredom and weariness
- D** showing confusion

- 2** Being a quadruped, Sam is often frustrated by my slow pace.

The prefix *quadr-* means “four,” and the root *ped* means “foot.” What is the meaning of quadruped as it is used in the sentence?

- A** a four-foot-long animal
- B** a four-footed animal
- C** a four-speed bicycle
- D** a four-wheeled scooter

### Answer Form

1 (A) (B) (C) (D)

2 (A) (B) (C) (D)

3 (A) (B) (C) (D)

4 (A) (B) (C) (D)

Number  
Correct

4

- 3** When we turn toward home, Sam reacts badly to the brevity of our outing.

The root *brev* means “brief,” and the suffix *-ity* means “degree.” What is the meaning of brevity as it is used in the sentence?

- A** slowness
- B** suddenness
- C** shortness
- D** frequency

- 4** He sits down on the sidewalk and is tenacious about staying there.

The root *ten* means “hold,” and the suffix *-ious* means “characterized by.” What is the meaning of tenacious as it is used in the sentence?

- A** happy and content
- B** full of rage
- C** unable to move
- D** unwilling to give in

# Interim Assessment

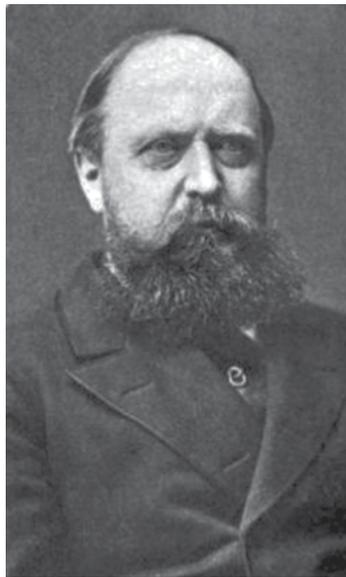
Read the article. Then answer the questions that follow.

## The Bone Wars

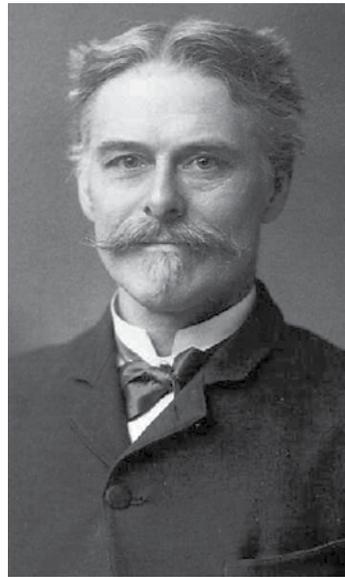
by J. R. Hill

1 If you've spent any time in grocery checkout lines, you've probably seen magazines with pictures of celebrities behaving badly toward each other. You might believe that scientists would be above that sort of thing, but you'd be wrong. About 150 years ago, two scientists started a nasty feud that lasted for decades—and brought to light some of the most spectacular creatures that ever walked the earth.

2 Edward Cope and Othniel Marsh were paleontologists—scientists who study extinct life-forms, including dinosaurs. They met in 1864, when their careers were starting. Paleontology was a young science in the United States, and only a few dinosaurs had been discovered in North America.



Othniel Marsh



Edward Cope

3 Cope and Marsh were friendly at first, but their relationship quickly soured. In 1868, Cope and a team of hired men were digging up dinosaurs in New Jersey. Marsh journeyed there and stayed with Cope for a few weeks. Things seemed to go well, but after Marsh left, Cope learned that his guest and the team foreman had made a deal. In exchange for money, the foreman would send new fossils to Marsh instead of Cope. Marsh had fired the first shot in what scientists would come to call the “Bone Wars.”

4 The war heated up fast. In 1869, Cope wrote an article describing a newly found extinct sea reptile he named *Elasmosaurus*. Cope included a drawing of the creature's skeleton. Another scientist soon pointed out that Cope had mistakenly stuck the beast's skull on its tail. Cope was humiliated, and Marsh crowed about the blunder to anyone who would listen. Shortly after, each man began publishing a string of scientific articles viciously attacking the other's ideas.



5 Cope and Marsh's thirst to outdo each other spilled into their fieldwork. Throughout the 1870s and 1880s, they led and sent teams into lawless regions of the western United States to hunt for dinosaur bones. The teams were told to slow and disrupt each other's work through bribery, stealing, and rock-throwing. The teams even used dynamite to blow up cliffs and bury fossils to keep discoveries from falling into each other's hands. To this day, scientists wonder what fantastic discoveries lay beneath tons of rubble.

6 In addition to sabotage, Cope and Marsh forced their teams to dig up and transport bones quickly. Such speed damaged many specimens, but each man wanted the credit of making the first discoveries of new species. Because they published their findings as quickly as possible, they made many mistakes. Marsh, for example, accidentally stuck the head of one dinosaur (*Camarasaurus*) on to the neck of another dinosaur (*Apatosaurus*) and thought he had discovered a new dinosaur—*Brontosaurus*. Unlike Cope's mistake with *Elasmosaurus*, paleontologists didn't discover and undo Marsh's *Brontosaurus* blunder for nearly 100 years.

7 Until the mid-1880s, only scientists knew about Cope and Marsh's fight. But when Cope ratted out Marsh to the *New York Herald*, their battle spilled out into the world at large. Cope and Marsh assaulted each other through letters published in the newspaper. For a time, they were as famous as any celebrities of today. And even when the public eventually stopped caring, the feud didn't cease. The two men of science took swipes at each other until Cope's death in 1897. Even in death, Cope kept up the attack. He donated his skull to science and asked that his brain size be compared with Marsh's. (Scientists of that time believed that a person with a large brain was smarter than a person with a small one.) For whatever reason, Marsh did not accept Cope's challenge.

8 The Bone Wars have a mixed legacy. On the one hand, American paleontology got a bad reputation from Cope and Marsh's cutthroat behavior. And the mistakes they made in their rush for glory slowed the progress of paleontology for many years. But the Bone Wars also produced a mountain of raw material. Cope and Marsh discovered more than 130 dinosaur species. Their teams dug up so many bones that scientists are still learning new things about them. And many of their most famous discoveries, including *Stegosaurus*, *Allosaurus*, *Diplodocus*, and *Triceratops*, fire the imaginations of children (and more than a few adults) worldwide. Perhaps paleontology would have been worse off had the two men actually gotten along.





Answer the questions. Mark your answers to questions 1–7 on the Answer Form to the right.

## Answer Form

|    |     |     |     |     |   |     |     |     |     |
|----|-----|-----|-----|-----|---|-----|-----|-----|-----|
| 1A | (A) | (B) | (C) | (D) | 4 | (A) | (B) | (C) | (D) |
| 1B | (A) | (B) | (C) | (D) | 5 | (A) | (B) | (C) | (D) |
| 2  | (A) | (B) | (C) | (D) | 6 | (A) | (B) | (C) | (D) |
| 3  | (A) | (B) | (C) | (D) | 7 | (A) | (B) | (C) | (D) |

Number  
Correct

8

**1** Answer Parts A and B below.

### Part A

The article says that paleontology was a young science in the United States in the mid-1800s. How knowledgeable about the field were paleontologists of the time?

- A** They were more informed than those in other nations.
- B** They were the greatest experts of the field at the time.
- C** They were not very knowledgeable about their field.
- D** They were just as knowledgeable as any other scientists.

### Part B

Which detail from the article **best** supports the answer to Part A?

- A** "Another scientist soon pointed out that Cope had mistakenly stuck the beast's skull on its tail."
- B** "Cope was humiliated, and Marsh crowed about the blunder to anyone who would listen."
- C** "Because they published their findings as quickly as possible, they made many mistakes."
- D** "Unlike Cope's mistake with *Elasmosaurus*, paleontologists didn't discover and undo Marsh's *Brontosaurus* blunder for nearly 100 years."

**2** Marsh and Cope had a stormy relationship. Which event was the **most** important influence on this relationship?

- A** Marsh paid Cope's team foreman to send new fossils to him.
- B** Marsh claimed he was the first to discover a mistake by Cope.
- C** Groups of their workers threw rocks at each other.
- D** Cope and Marsh attacked each other in the newspapers.



- 3** Which sentence **best** describes how the two paleontologists influenced each other?
- A** Cope and Marsh would do almost anything to become public celebrities.
  - B** The competition between Cope and Marsh pushed each man to make amazing discoveries.
  - C** Cope and Marsh's mistakes destroyed their credibility as paleontologists.
  - D** Cope and Marsh would have discovered even more dinosaur bones if they had worked together.
- 4** Each man thought he was better in his field than the other. Which evidence from the text **best** supports the inference that Cope also thought he was smarter than Marsh?
- A** Cope told the *New York Herald* about Marsh's actions.
  - B** Cope described a newly found extinct sea reptile he named *Elasmosaurus*.
  - C** Cope wanted his brain size to be compared with Marsh's after death.
  - D** Cope published scientific articles viciously attacking Marsh's ideas.
- 5** A good summary includes only important details. Which of the following details is **not** important enough to include in a summary of the article?
- A** The rivalry between Cope and Marsh affected their fieldwork.
  - B** Cope and Marsh brought to light some amazing discoveries.
  - C** Each man's rush to claim glory caused mistakes to be made.
  - D** The men gained fame due to their letters in the *New York Herald*.



**6** The last paragraph says that the Bone Wars have a mixed legacy. How does the author develop this idea?

- A** by concentrating on the mistakes that Cope and Marsh made
- B** by presenting the pros and cons of Cope and Marsh's rivalry
- C** by giving the causes and effects of Cope and Marsh's rivalry
- D** by stating in sequence events detailing Cope and Marsh's rivalry

**7** Which of the following lists only the **main topics** of "The Bone Wars" in the correct order?

- A** Cope and Marsh meet in 1864.  
Their feud begins in 1868.  
Cope publishes a mistake in 1869.  
The feud moves into fieldwork during the 1870s and 1880s.  
Cope dies in 1897, leaving Marsh the winner of the Bone Wars.
- B** Marsh begins the feud.  
The feud is fought through scientific articles.  
The fighting turns violent in fieldwork out West.  
Cope dies and wants his brain compared with Marsh's.  
The Bone Wars both helps and hurts the reputation of paleontology.
- C** The feud turns Cope and Marsh into celebrities.  
Marsh secretly tries to hire Cope's foreman.  
Cope publishes a mistake in a scientific journal.  
Cope and Marsh begin fighting the Bone Wars.  
Cope dies, so Marsh wins the Bone Wars.
- D** A feud begins between Cope and Marsh.  
Cope and Marsh compete in both articles and fieldwork.  
The fight leads to both mistakes and damaged specimens.  
The feud goes public and ends only with Cope's death.  
The Bone Wars slowed scientific progress but provided valuable fossils.



**8** The last paragraph of the article states that “American paleontology got a bad reputation from Cope and Marsh’s cutthroat behavior.” Explain why this was true. Cite two pieces of text evidence to support your inference.

---

---

---

---

---

---

---

---

**9** Write a paragraph in which you analyze the positive influence Cope and Marsh’s rivalry had on the field of paleontology, both in their own time and today. Support your analysis with details from the article.

---

---

---

---

---

---

---

---

---

---

---

---