Gary Community School Corporation
Doing What is Best for Students - Today - Tomorrow - Everyday

Grades

6-8

# Instructional Packet

The Inside Scoop
by Michael Stahl

In New York City, one of the most popular brands of ice cream comes from a company called Mister Softee. Mister Softee sells ice cream to children and adults alike right out of a large blue-and-white truck. One particular Mister Softee truck driver is named Gus Elefantis. He has not only made Mister Softee ice cream his career, but the tasty, smooth ice cream has helped him make a few friends, too, since he first bought a truck in the mid-1980s.

Gus Elefantis's summer days begin at about 8 a.m. when he and his wife Lola wake up to make breakfast for their two daughters. Once breakfast is finished, Gus and Lola leave their daughters at home (the oldest daughter is 18 years old and capable of babysitting) and drive 20 minutes to a very special parking lot. It is there where Gus parks his very own Mister Softee ice cream truck every night alongside about a dozen others.

As soon as they arrive, Lola begins cleaning and stocking his truck, inserting all of the local favorite types of ice cream pops and flavored frozen ices into specific freezer compartments to be sold once Gus drives along his route. "Everything's in the same place every day," says the short, blonde lady.

"This way, my husband doesn't even have to think!"

Gus agrees, saying he won't even need to glance inside the freezer as he fills orders for the long lines of customers waiting on the sidewalks.

Watching his wife wipe down the sink, the refrigerator and the slushy machine, Gus explains that Lola has cleaned the truck for over 20 years, ever since they were first married. "She's the best at it," he says with a heavy Greek accent. "I've tried to clean the truck plenty of times before, but I'm no good at it. When Lola cleans, it is spotless."

Gus's morning duty is to "go shopping" and purchase any new stock the truck needs for the day. He buys these items from his old friend Dimitri Tsirkos, who got Gus into the business and now runs the Mister Softee station. The station consists of a few parking lots for the trucks and a store where drivers buy supplies. Into a shopping cart Gus loads a few cartons of chocolate and vanilla ice cream mix, which will later freeze up inside the truck's dispenser machine. He adds a can of whipped cream, some blue paper cups and a gallon of strawberry syrup.

Lola has finished cleaning Gus's truck. Tupperware containers of sprinkles are filled. Gallons of milk are placed just behind a steel refrigerator door at Gus's feet. Chocolate sauce that hardens when chilled is poured into a bowl for Dip Cones. The truck is finally ready.

After unplugging the back of the truck from a wall outlet that is used to keep the refrigerators and freezers inside running overnight, then starting up and revving the engine for a while to warm it up (the truck itself is over 30 years old), Gus drives out of the garage to sell ice cream in the neighborhood he's called home for over 40 years: Astoria, New York. Gus will spend between nine and ten hours driving around, jumping from the driver's seat to the serving window countless times. This takes a toll on a big man's body. "You're walking on steel all day," he says. "Talk to any Mister Softee driver and they'll tell you that their legs from the knees down are a problem."

Though there is an air conditioner in the truck that isn't completely useless, its work is made more difficult by the heat coming from the refrigerators, not to mention the sweltering humidity in New York City's summer air. The back of the truck is searing on days when temperatures climb above 95 degrees, which are also some of the least profitable days because customers stay inside their air-conditioned homes. Naturally, rainy days hurt business as well. How much money the drivers make changes from year to year, depending on the weather. Gus remembers one year, though, when the weather was so cooperative, he started driving in February and didn't stop until Thanksgiving! "I made a lot of money that year," he says with a nod of his head.

Usually, Gus doesn't drive the Mister Softee truck for more than six months a year. He works every day it doesn't rain between April and October, unless there is an important family event or holiday like Greek Easter. A day spent inside his home is a day he's not making money, so he'll put in 12-hour days as often as he possibly can. On those days he misses his daughters, Joann, the older one, and Nora, who is eight.

After a long summer season and parking his truck for winter, Gus searches for a new winter job to provide for his family. "Once I drove a cab, but that was too much driving in one year for me," he laughs. "Usually, I work part-time in construction or at a restaurant just like when I was young." In some ways, he would love a stable, everyday job, he says. But with Mister Softee, he's his own boss, which has its perks.

ReadWorks

"I eat ice cream every day," Gus says, admitting that he dips into his own supply, usually after accidentally making something a customer didn't ask for, like a cone with chocolate sprinkles instead of rainbow. "I feel like I have to eat the mistakes. I don't want them to go to waste!"

When he's had enough ice cream for the day, he gives his errors away, no charge. Gus loves giving away free ice cream, which has gotten him a lot of fans. However, the people of Astoria don't go to his truck just for ice cream-whether it's free or not-they also go to see their friend.

"My husband loves everyone," says Lola. "Adults, kids, pets. It doesn't matter."

The side windows of the truck have few stickers, making it easy to see into the back where Gus works. This was done on purpose. He feels it makes parents much more comfortable dealing with him because it shows he has nothing to hide. Gus doesn't drive his route late at night because he knows the truck's song will get kids to jump out of bed. During the daytime, he plays the song only once per block to limit the disturbance.

"My mother always told me that if you live in a glass house, don't throw stones at your neighbors. And I live in a glass house," he says, referring to his windowed truck. He calls the job "easy," despite the long hours away from his daughters while they're on summer vacation, the heat, the hurt in his legs, and the requirement of a new job every winter. But Gus Elefantis isn't going anywhere, to the delight of the many Astorians with which he comes into daily summer contact. "Unless I hit the lotto," he says, "which I don't play, I'm not going to stop."

Name: _____ **Date:** _____

1. What does Gus Elefantis do during the summer?

    A. Gus Elefantis teaches Greek to tourists.

    B. Gus Elefantis drives an ice cream truck.

    C. Gus Elefantis works on a construction site.

    D. Gus Elefantis waits tables at a restaurant.

2. What is the sequence of events in a summer day for Gus?

    A. Gus gives away ice cream for free; Gus goes shopping for supplies; Gus drives around to sell ice cream.

    B. Gus gives away ice cream for free; Gus drives around to sell ice cream; Gus goes shopping for supplies.

    C. Gus goes shopping for supplies; Gus drives around to sell ice cream; Gus gives away ice cream for free.

    D. Gus goes shopping for supplies; Gus gives away ice cream for free; Gus drives around to sell ice cream.

3. Many people in Astoria like Gus.

What evidence from the passage supports this statement?

    A. "However, the people of Astoria don't go to his truck just for ice cream-whether it's free or not-they also go to see their friend."

    B. "Gus's morning duty is to 'go shopping' and purchase any new stock the truck needs for the day."

    C. "Gus Elefantis's summer days begin at about 8 a.m. when he and his wife Lola wake up to make breakfast for their two daughters."

    D. "The side windows of the truck have few stickers, making it easy to see into the back where Gus works."

4. What is one problem with Gus's job?

    A. Gus buys the items he needs for his truck from a friend.

    B. Gus works in Astoria, New York.

    C. Gus's job causes pain in his legs.

    D. Gus's job allows him to interact with people.

5. What is this passage mostly about?

    A. an ice cream company called Mister Softee

    B. the neighborhood of Astoria, New York

    C. different flavors of ice cream

    D. the work of an ice cream truck driver

6. Read the following sentence: "Gus agrees, saying he won't even need to glance inside the freezer as he fills orders for the long lines of **customers** waiting on the sidewalks."

What does the word **customers** mean?

    A. people who get into trouble

    B. people who work hard

    C. people who are mean to others

    D. people who buy things

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

Gus likes some things about his job _____ not others.

    A. in summary

    B. above all

    C. but

    D. after

8. Name two things Gus likes about his job.

9. Name two things Gus does not like about his job.

10. Gus says that, in some ways, he would love a stable, everyday job. Why does he choose to be an ice cream truck driver instead? Support your answer with evidence from the passage.

Grade 6 Mini-Assessment – excerpts from *Counting on Grace* and *Iqbal*

Today you will read two excerpts: one from *Counting on Grace,* a novel by Elizabeth Winthrop, and one from *Iqbal,* by Francesco D'Adamo. You will then answer several questions based on the texts. I will be happy to answer questions about the directions, but I will not help you with the answers to any questions. You will notice as you answer the questions that some of the questions have two parts. You should answer Part A of the question before you answer Part B, but you may go back to Part A if you wish.

Take as long as you need to read and answer the questions. If you do not finish when class ends, come see me to discuss when may have additional time.

Now read the passage and answer the questions. I encourage you to write notes in the margin as you read the passage.

Text 1: from *Counting on Grace* by Elizabeth Winthrop-Chapter 10, "The Letter"

> *The setting is the early 1900s, a time when child labor laws were sometimes ignored in the United States. Grace is the twelve-year-old narrator. She and Arthur work in the mill during the day, and Miss Lesley is their teacher after work.*

(1) Miss Lesley nods to Arthur and he pulls out the paper and smooths the wrinkles he made when he crunched it up.

(2) "Read it to her," Miss Lesley says.

(3) "Are you practicing your writing?" I ask.

(4) "Grace, hush for once in your life and listen."

(5) It's a letter. Arthur's doing the writing. It goes this way.

(6) *To Miss Anna Putnam, National Child Labor Committee, Vermont Chapter, Bennington, Vermont.*

(7) *Dear Madam,*

(8) *This is to inform you that there are underage children working in the cotton mill in the town of North Pownal, Vermont. These children range in age from eight to thirteen. They are employed in the following dangerous tasks.*

(9) It stops there.

(10) "That's as far as we got," Arthur says. "Before you barged in."

(11) "So now you can help us, Grace."

(12) My brain is whirling around. My feet start shifting under the desk.

(13) "What is that child labor comm-thing?"

(14) "They investigate places where children are not supposed to be working because they are too young. Believe it or not, there are laws against child labor. They're just not enforced," Miss Lesley says.

(15) "But we need to work. For the money." I can hear Mamère's voice speaking right through my lips.

(16) "Yes, Grace. But you also need your education. Then when you get older, you'll have a job that makes you much more money than you'll ever get working in the mill."

(17) "Stop arguing," Arthur says to me. "You wanna leave?"

(18) I don't. This is more interesting than reading *la Justice* to Pépé for the third time this week. Or doing laundry with Mamère. Or weeding.

(19) I'll help them write their dumb old letter. What difference does it make? When that inspector comes, we'll just hide in the elevator the way we always do until he leaves the premises. That's a fancy word Mr. Wilson uses for the mill.

(20) "So back to the letter. What jobs do children do in the mill?"

(21) "Doffing,"[1] I say.

(22) "Besides doffing," says Miss Lesley.

(23) "Sweeping," says Arthur. "And carrying the bobbin boxes. They're heavy."

(24) "Good. Write that down. What else, Grace?"

(25) I'm thinking hard. This is like a test and I want to do well on it. "Some of the boys work in the warping room."

(26) Arthur writes.

(27) "And what about Thomas?" Miss Lesley asks.

(28) "He was fooling around at the time," I tell her. "He was standing too close to that gearbox."

(29) "More accidents happen because of the number of children working in the mill. But Thomas was legally old enough to be working so we'll forget him for now. What else?"

(30) "We clean the machines on Saturdays. And some other times if the roving[2] gets too bunched up. Delia's got scars on her fingers from the cleaning hook."

(31) "Perfect," says Miss Lesley, and I smile. I'm passing the test. "Arthur, put down machine maintenance."

(32) Then she writes out that big word for him so he can copy it.

(33) "Why aren't you writing the letter to the committee place?" I ask Miss Lesley.

(34) "She'll get fired if they find out it's coming from her," Arthur says, and rolls his eyes at me as if everybody is supposed to know that. "You'd better not tell."

(35) "Who will fire her?"

(36) "The mill owners," Arthur spits. "They own the mill school."

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[1] Doffing: Removing objects from a textile machine
[2] Roving: Soft fibers ready to be twisted into yarn

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(37) "Hush, Arthur," says Miss Lesley. "Nobody's going to be firing me as long as we keep this quiet. Now sign it this way." She writes out another big word for him to copy. It says Anonymous.

From COUNTING ON GRACE: A NOVEL by Elizabeth Winthrop, copyright © 2006 by Elizabeth Winthrop. Used by permission of Wendy Lamb Books, an imprint of Random House Children's Books, a division of Random House, Inc.

Text 2: From *Iqbal* by Fransesco D'Adamo

Set in modern day Pakistan, the novel Iqbal tells the story of children forced to work in a carpet factory to pay off the debt of their parents. Iqbal, one of the main characters, dreams of a better life, one where he lives not shackled to a loom. He defies the owners of the carpet factory at every turn, even running away repeatedly, despite being punished severely for the action.

1   A year had passed since Iqbal's arrival, and something had changed. Before we were a group of children facing the same sad fate, each of us just trying to survive. Now we were united, strong, friends and something more.

2   Maria's efforts were greatly rewarded one night, when we finally managed to decipher the handout Iqbal had brought back from his first escape. It seemed as if suddenly and miraculously, all those little marks we had drawn on the sand, those strange, incomprehensible pothooks, assumed meaning. We saw a sentence form on the paper, all by itself – I swear, we didn't do anything. It just came together, and it told us things.

3   I remember my heart beating like crazy. I couldn't believe my eyes! This, then, was reading. It looked like something dead and suddenly it came to life and it spoke to you, like a person.

4   We yelled "Hooray!" and then we scurried back to our beds, because of course we had awakened the mistress.

5   We read the flyer out loud so many times that I can still remember what was written.

6   **STOP THE EXPLOITATION OF CHILD LABOR!!**

7   **In Pakistan more than 700,000 children live like slaves, forced to work in the fields, in the brick-making kilns, in the carpet factories, for greedy and unscrupulous³ masters. They are chained, beaten, tortured in every way. They work from sunrise to sunset! For their work, they sometime receive one rupee a day – more often not even that. Their masters get rich selling their prized carpets to foreign buyers. The police know what's going on and don't intervene because of corruption. But now there's a law in our country that makes these clandestine⁴ factories illegal. Their owners should be arrested. Let's make them comply with**

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³ Unscrupulous: corrupt and lacking morals
⁴ Clandestine: secret

the law! Let's end this shameful and terrible crime, which exploits our children and dishonors our country! Our children have the right to be free children!

8   JOIN US! FIGHT WITH US! BONDED LABOR LIBERATION FRONT OF PAKISTAN

9   And at the bottom of the flyer there was the address we had looked for, too. Now the problem was how to get there.

10   The brawl broke out without warning, while everyone was calmly enjoying the sunshine. When explaining the brawl to Hussain, some said that Mohammed, who was clumsy, had bumped into Salman, spilling Salman's bowl of lentil soup. Others said that Salman, who always tended to bully people, had started to tease Mohammed about his big feet, and the boy from the mountains had lost his temper. . . .

11   When we finished, Karim made us line up like so many little soldiers to go back into the workshop. After we started work, he slowly checked on everything. Then he went outside, thought for a moment, scratched his head, and spat in the dust two or three times. Taking his time, he strolled across the courtyard, hiking up his pants as he walked, and knocked on the master's door. Then, to a shocked and angry Hussain Khan, he broke the news that one worker was missing.

12   Iqbal had taken advantage of the confusion to climb over the wall at the back of the courtyard. He took the path through the gardens and escaped again. He had just a small lead over his pursuers, but it would be enough.

13   Iqbal came back the next day, and he wasn't alone. We recognized the man with the clean white shirt as the man Iqbal had seen giving a speech at the market for the Bonded Labor Liberation Front. His name was Eshan Khan. He was a tall, thin man who gave the impression of force and determination. His beard and his mustache were well groomed, and he was again wearing those immaculate white clothes. He had dedicated his life to the liberation of the child-slaves. He had been threatened, beaten, imprisoned; yet after each time, he had started afresh, driven by enthusiasm and perseverance.

QUESTIONS

1. Based on paragraph 14 of Text 1: *Counting on Grace*, what is the meaning of the phrase "not enforced"?
   A. not well liked
   B. not strictly followed
   C. not useful for children
   D. not applied fairly

2. This question has two parts. First answer Part A, and then answer Part B.

   Part A: In Text 1, how does Arthur respond when Miss Lesley asks Grace to help with the letter?

   A. He worries that Grace may reveal that Miss Lesley helped write the letter.
   B. He appreciates that Grace is helping him think of details to include in the letter.
   C. He believes Grace will help make the activity go faster so they can get back to work.
   D. He thinks it is good for Grace to learn about the Child Labor Committee.

   Part B: Which sentence from Text 1 <u>best</u> shows Arthur's reaction?

   A. "Grace, hush for once in your life and listen."
   B. "That's as far as we got," Arthur says.
   C. "Stop arguing," Arthur says to me.
   D. "You'd better not tell."

3. Reread paragraph 12 of Text 1.

   "My brain is whirling around. My feet start shifting under the desk."

   How does this paragraph move the plot of the story forward?

   A. Now Grace thinks about leaving and helping her mother with the work at home.
   B. Now Grace starts hoping that the letter will change conditions at the mill.
   C. Now Grace understands why Arthur and Miss Lesley are writing the letter.
   D. Now Grace starts thinking about writing a similar letter by herself.

4. This question has two parts. First answer Part A, and then answer Part B.

   Part A: In Text 1, what is Miss Lesley's point of view about child labor?

   A. People should learn to accept that child labor is needed.
   B. The mill owners will stop hiring children very soon.
   C. Child labor will gradually go away by itself.
   D. Child labor is wrong and should be stopped.

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Part B: What are <u>two reasons</u> Miss Lesley provides to support her point of view?

A. Children spend too much time away from their families because they are working.
B. Children should be spending time in school instead of working.
C. It is important that children earn money to help their families.
D. Having so many children working at the mill makes accidents more likely.
E. The equipment in the mill is too complicated for children to use.
F. Children are not responsible enough to perform the duties they are given in the mill.
G. There are not enough jobs to keep both children and adults employed.

5. In Text 1, Grace and Arthur have different points of view about the letter. Which paragraph in Text 1 provides the best evidence for each character's point of view? Write the correct paragraph number from Text 1 into each box below.

Grace's point of view: She believes the letter will not change anything.

Paragraph Number of Evidence for Grace's Point of View:

Arthur's point of view: He believes the letter may cause problems for Miss Lesley.

Paragraph Number of Evidence for Arthur's Point of View:

6. What is one of the themes of Text 1?
   A. Taking a risk is worthwhile when trying to change a bad situation.
   B. True friendships remain strong during difficult times.
   C. A person should make his or her own decisions in the face of peer pressure.
   D. No sacrifice is too big to make in order to help one's family.

7. Part A: In paragraph 2 of Text 2, *Iqbal*, the narrator says that they, "finally managed to decipher the handout . . . ." What phrase gives the <u>best</u> definition of the word *decipher* as it is used in Text 2?

A. translate into another language
B. make additional copies of

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C. make sense of

D. reveal the existence of

Part B: In paragraphs 2 and 3 of Text 2, included below, circle three of the underlined sections that help the reader determine the meaning of the word *decipher*.

2   Maria's <u>efforts were greatly rewarded</u> one night, when we finally managed to decipher the handout Iqbal had <u>brought back from his first escape</u>. It seemed as if suddenly and miraculously, all those little marks <u>we had drawn on the sand</u>, those <u>strange, incomprehensible pothooks, assumed meaning.</u> We saw a sentence form on the paper, all by itself – I swear, we didn't do anything. It just came together, and <u>it told us things</u>.

3   I remember <u>my heart beating like crazy</u>. I couldn't believe my eyes! This, then, was reading. It <u>looked like something dead</u> and suddenly it came to life and <u>it spoke to you</u>, like a person.

8. In Text 2, the author includes the event describing the children getting into a fight to show that

A. the children feel helpless when they find out that many other children live as slaves.

B. the children will do anything to avoid returning to work after their break.

C. the children have to work like adults, but they still act like children when they can.

D. the children know they must create a distraction so one of them can escape and contact authorities.

9. Part A: In Text 2, what central idea is developed?

A. The children are becoming stronger since Iqbal's arrival.

B. The worst effect of child labor is that children are deprived of a quality education.

C. The living conditions force the children to use things in their environment to meet basic needs.

D. Iqbal's values changed when he was exposed to the outside world.

Part B: Which event in Text 2 best helps develop the central idea that is the correct answer to Part A?

A. Maria teaches the other children to read

B. The children must draw in the sand instead of using paper.

C. At first, none of the children can understand the flier.

D. Iqbal brings someone new to the workshop.

10. Which sentence best describes an approach used by both authors to discuss the topic of child labor?

A. The settings of the books were chosen to be familiar to the reader to allow him or her to visualize how the children lived and worked.
B. Most of the characters are male to show that child labor impacted mostly young boys.
C. A theme of children struggling to learn is used to emphasize the lack of education that drove children to work in factories.
D. The books are narrated in first person by characters who are child laborers to show the reader a realistic example of each narrator's experiences.

11. (Optional Writing prompt): Imagine that Grace from *Counting on Grace* and the narrator of *Iqbal* met each other. Based on what you learned of each character, write out the conversation they might have had with each other about child labor. As you write the dialogue of the conversation, be sure that you make it clear: 1) whether they agree or disagree on the use of child labor, and 2) the arguments each one would use for or against it. Use details and events from the texts to guide your response so the characters you create remain similar to those that the original authors created. Your writing will be scored on how well you:

- show that you understood the ideas in the passage.
- use ideas from the passage as part of your own story.
- use words and sentences to create images for the reader.
- use periods, capital letters, and correct grammar.

11

Safe at Any Speed
by Pearl Tesler

This is not your high school driver's ed class.

Screeeeeeech! Flying down the pavement in a red sports car, Courtney Springfield, 17, slams on the brakes and swerves- *hard.* The tires squeal and the car lurches, flinging the passengers around like rag dolls until the car skids to a halt. The acrid smell of burning rubber fills the car.

Guess what? Courtney pulled that stunt right in the middle of her driver's ed class. Uh-oh!

Not to worry. In any normal driving school, a wild maneuver such as that might get Courtney kicked out of class. But here at the Bob Bondurant School of High Performance Driving in Phoenix, it earns her kudos from her teacher. "Looks great! Try turning a little more aggressively next time," the teacher says, smiling.

Courtney is smiling too. "I was so nervous about coming here; I almost puked," she admits. "But this is *really* fun." Courtney is one in a class of eight students in today's Teen Driving Program, an advanced class for drivers who have either a learner's permit or a freshly minted driver's license.

"We don't teach the turn-signal, check-your-mirror kind of thing," explains instructor Danny Bullock. "We don't teach people to drive. We teach them to drive *better.*"

Ground School

The day begins with a 30-minute "ground school" to prepare the students for the exercises ahead. Bullock informs the students that some of the lessons they might have learned in other driver's ed classes are either impractical or wrong.

Take hand position. Some people are taught to put their hands on the steering wheel at 2 o'clock and 10 o'clock. But as Bullock demonstrates, putting the hands at 3 o'clock and 9 o'clock gives the arms and shoulders more range of motion, allowing the driver to turn the wheel a full 180 degrees instead of just 90 degrees.

Some people are also taught to brake before making a turn and to accelerate during the turn. But Bullock tells the group that they should brake while making turns. Controlled braking during a critical turn can actually help a car turn, by increasing the *friction* between the car's front tires and the road. Friction is a force that resists the sliding of one object relative to another. The friction between a tire and the road depends partly on the weight pressing down on the tire. Due to a phenomenon called *weight transfer*, braking shifts some of a car's weight forward, from the back tires to the front tires. That extra weight increases the force of friction between the front tires and the road, helping the car turn.

ReadWorks

Behind the Wheel

Ground school's over. It's time to get behind the wheel, starting with an exercise in extreme braking. Driving at 64 kilometers (40 miles) per hour and then 105 kpm (65 mph), students practice slamming on the brakes. That gets them used to the strange pulsing sensation- *thump! thump! thump!*-in the brake pedal that's caused by the *antilock brake system* (*ABS*). An ABS senses when the tires are beginning to skid and automatically reduces the braking force just enough so that the wheels start to spin again. It's important to keep the wheels spinning because that allows the driver to keep steering. Otherwise, the skidding car is guided only by its own *inertia*, the tendency to keep moving in the same direction-whether the driver likes it or not.
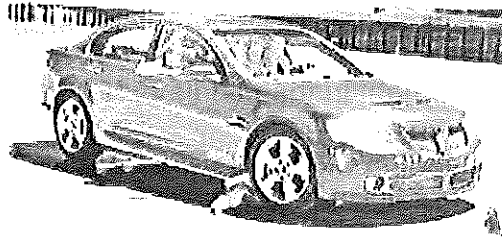
Bob Bondurant School of High Performance Driving

Student driver Shelby Brown knocks over a cone on the precision maneuver course.

"People tend to panic when they feel the ABS. They take their foot off the brake pedal. They think they won't be able to steer," says Bullock. "But we like to say that ABS stands for 'absolute braking and steering.'"

Accident Avoidance

Next up at the driving school is the accident avoidance exercise. Students drive at highway speeds down a lane that splits into three lanes. Each lane has a signal light over it. At first, all three lights are green. Then, suddenly, one or more of the lights turns red, and students must immediately switch lanes to avoid an "accident" ahead. Cones between the lanes serve as telltale markers of each student's success at avoiding the collision.

"The natural reaction is to slam on the brakes, but you don't always have time," says Bullock. "Cars are much better at turning than they are at stopping."

Courtney's turns are quick, though not quick enough. She topples two cones. "And that's when you *knew* something was going to happen," points out Bullock. "Will you be able to get around that situation when you *aren't* expecting it?"

Hitting the Skids

The unique and very hands-on approach at the Bondurant School draws students from all over the country, including 15-year-old Shelby Brown from Indianapolis. Her dad wants her to learn to handle driving in winter weather, when ice and snow reduce friction drastically. "He's had me practicing on

snow in parking lots," she says, "but there's only so much of that you can do."

Bob Bondurant School of High Performance Driving

Clockwise from top left: prepping students for the day's lessons at the driving school; a car negotiating the cone-lined lanes for the accident avoidance exercise; a car outfitted with outrigger wheels for the skid lesson; hands held in the correct (3 o'clock-9 o'clock) position

Shelby is about to get what she came for. It's time to drive the skid car, an unusual vehicle built to skid on purpose. Four outrigger wheels, which look something like training wheels, are mounted at the four corners of the car. With the press of a button, the instructor can use the outrigger wheels to lift up the front or back end of the car, reducing friction at the front or rear tires, causing either an understeer or an oversteer skid. The student's job is to correct the skid and regain control of the car.

Shelby enters a left turn going about 55 kph (35 mph). Bullock presses the button, and suddenly the car's tail end swings to the right-an oversteer skid. Shelby does what she was taught in her first driver's ed class: She turns the steering wheel to the right, in the direction of the skid. But the skid continues, blossoming into a full, nauseating 360-degree spin.

What went wrong? "Two things," instructs Bullock. "First, you were looking where the car was going. Keep your eyes focused on where you *want* the car to go. That'll help you do the right amount of turning. Also, try giving it a little gas."

Give it gas? Really? Although everyone's first impulse in a skid is to slam on the brakes, a little gas actually helps correct an oversteer skid, says Bullock. It shifts weight to the skidding rear wheels, adding friction where it's needed.

Shelby tries again, keeping her eyes focused on where she wants to go and remembering to use the gas, not the brake. This time, she straightens out the fishtailing car like a pro.

Cone Killer

"Stop! You're hitting another one!" cries Shelby. Shelby is Courtney's driving partner for the precision

maneuvers exercise, an obstacle course of orange traffic cones that simulates an exceptionally challenging parallel parking situation. There's a *thump*, followed by the lumpy feeling of a cone going under the wheel.

"I'm definitely going to win the Cone Killer Award," rues Courtney, referring to an actual prize handed out at the end of class to the student who hits the most traffic cones. "Parking's not my thing."

Most teen drivers live in fear of putting a dent in the family car. That fear is justified. One in five 16-year-olds will get into a car accident in the first year of driving. However, fender benders should be the least of their worries. A 16-year-old is 20 times more likely to be killed in a car crash than is an adult, according to the California Office of Traffic Safety. In fact, teenagers are more likely to die in their first year of driving than any other year of their lives. It's statistics such as those that inspire parents to send their kids to the Bondurant School.

Class is over, but no one is eager to leave. Instead, students share stories of close calls on the road. One boy admits that he lost control of his car on a highway when he hit a "road gator" (a truck tire tread). He overcorrected and went into a skid that took him across two oncoming lanes of traffic.

Would the lessons he learned today have made a difference? "Definitely," he says. "I wouldn't have freaked out so much. And I could have fixed that skid."

Where the Rubber Meets the Road

As you drive, the weight of your car isn't always spread equally among four wheels. It shifts from front to back and from side to side. That phenomenon, called *weight transfer*, is as important for ordinary drivers as it is for race car drivers, because it changes the friction between the tires and the road-that is, the tires' resistance to sliding.

When a car is parked or traveling straight ahead at a steady speed, its weight is distributed evenly among the four tires. The *contact patch*-the area of the tires where they meet the road-is the same for all four tires.

front   Contact   rear
   patches
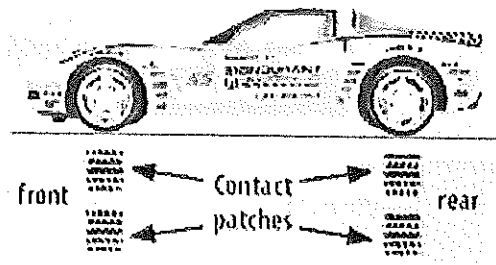
Bob Bondurant School of High Performance Driving

When you accelerate, weight transfers to the rear wheels from the front wheels. The car squats: The front of the car lifts, and the rear drops. Weight and friction increase for the rear wheels and decrease for the front wheels.
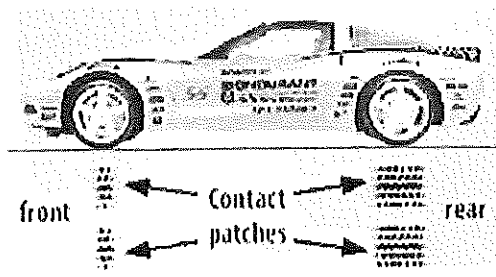
Bob Bondurant School of High Performance Driving

When you brake, weight transfers to the front wheels from the rear wheels. The car nosedives: The front drops, and the rear lifts. Weight and friction decrease for the rear wheels and increase for the front wheels.
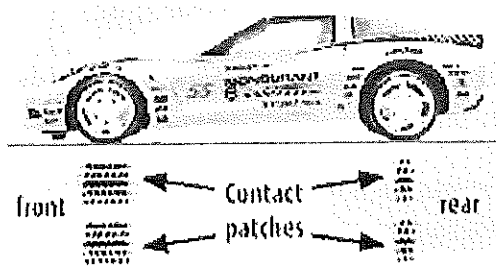

Bob Bondurant School of High Performance Driving

Reduced friction at the front of the car can lead to *understeering*-you turn the steering wheel, but the car doesn't turn or doesn't turn as much as you want it to. To correct understeering, reduce speed to shift more weight to the front wheels.
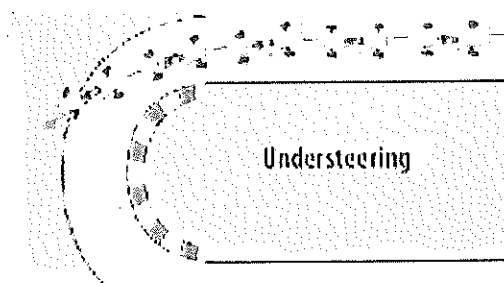
Goodyear/Bob Bondurant School of High Performance Driving

Reduced friction at the rear of the car can lead to *oversteering*-a skid where the rear of the car fishtails or swings around to the front. To correct oversteering, turn in the direction of the skid and accelerate to shift weight to the back wheels.

Oversteering
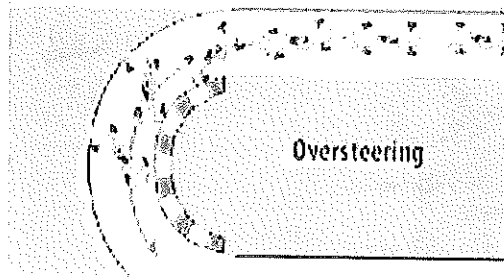
Goodyear/Bob Bondurant School of High Performance Driving

Road Rules

Driving instructor Danny Bullock shares these safe-driving tips:

Stay focused. If you're driving while texting, daydreaming, tuning the car stereo, or holding a burger in one hand and a drink in the other, then you aren't driving. You're an accident waiting to happen.

Elevate your vision. Don't fixate on the taillights in front of you. Instead, look up and ahead-at least 10 car lengths-to anticipate situations before they develop.

Steer with your eyes. Look where you're going, right? Wrong. That can lead to *target fixation*, the situation in which drivers focus on the one thing they don't want to hit-and then hit it. Instead, look where you want the car to go.

Name: _____ **Date:** _____

1. According to Danny Bullock, what does the Bob Bondurant School of High Performance Driving teach people?

    A. how to check the rearview mirror when driving

    B. how to compete in an auto race

    C. how to drive trucks

    D. how to drive better

2. To organize this text, the author splits it into sections with subheadings. What is described in the section with the subheading "Behind the Wheel"?

    A. braking

    B. a traffic cone

    C. friction

    D. oversteering

3. Read these sentences from the text.

"Some people are also taught to brake before making a turn and to accelerate during the turn. But Bullock tells the group that they should brake while making turns. Controlled braking during a critical turn can actually help a car turn, by increasing the friction between the car's front tires and the road. Friction is a force that resists the sliding of one object relative to another. The friction between a tire and the road depends partly on the weight pressing down on the tire. Due to a phenomenon called weight transfer, braking shifts some of a car's weight forward, from the back tires to the front tires. That extra weight increases the force of friction between the front tires and the road, helping the car turn."

Based on this evidence, what can you infer about the effect of accelerating during a turn?

    A. Accelerating during a turn may cause a car's weight to shift forward, from the back tires to the front tires.

    B. Accelerating during a turn is unlikely to have any effect on the difficulty of making the turn.

    C. Accelerating during a turn may make turning more difficult by decreasing the friction between a car's front tires and the road.

    D. Accelerating during a turn may make turning less difficult by increasing the friction between a car's front tires and the road.

4. Read these sentences from the text.

"Next up at the driving school is the accident avoidance exercise. Students drive at highway speeds down a lane that splits into three lanes. Each lane has a signal light over it. At first, all three lights are green. Then, suddenly, one or more of the lights turns red, and students must immediately switch lanes to avoid an 'accident' ahead. Cones between the lanes serve as telltale markers of each student's success at avoiding the collision.

'The natural reaction is to slam on the brakes, but you don't always have time,' says Bullock. 'Cars are much better at turning than they are at stopping.'

Courtney's turns are quick, though not quick enough. She topples two cones. 'And that's when you knew something was going to happen,' points out Bullock. 'Will you be able to get around that situation when you aren't expecting it?'"

What did Bullock mean when he said, "And that's when you knew something was going to happen"?

    A. Bullock meant that Courtney knew she was going to knock over two cones.

    B. Bullock meant that Courtney knew the light signals were going to change.

    C. Bullock meant that Courtney knew she was going to get into a car accident.

    D. Bullock meant that Courtney was driving differently because she knew he was watching her.

5. What is the main idea of this text?

    A. When a car is parked or traveling straight ahead at a steady speed, its weight is distributed evenly among its four tires.

    B. Students at the Bob Bondurant School of High Performance Driving receive hands-on lessons that make them better drivers.

    C. Courtney Springfield expects to win the Cone Killer Award at the end of her class at the Bob Bondurant School of High Performance Driving.

    D. According to the California Office of Traffic Safety, a 16-year-old is 20 times more likely to be killed in a car crash than an adult is.

6. Read these sentences from the text.

"Driving at 64 kilometers (40 miles) per hour and then 105 kph (65 mph), students practice slamming on the brakes. That gets them used to the strange pulsing sensation- *thump! thump! thump!*-in the brake pedal that's caused by the antilock brake system (ABS)."

Why might the author have included the words "*thump! thump! thump!*" here?

    A. to suggest that slamming on the brakes is unsafe and likely to cause an accident

    B. to prove that student drivers do not get enough practice at braking in most driving schools

    C. to help readers imagine what the students are thinking when they slam on the brakes

    D. to help readers imagine what it sounds and feels like when the students slam on the brakes

7. Read these sentences from the text.

"Next up at the driving school is the accident avoidance exercise. Students drive at highway speeds down a lane that splits into three lanes. Each lane has a signal light over it. At first, all three lights are green. Then, suddenly, one or more of the lights turns red, and students must immediately switch lanes to avoid an 'accident' ahead."

What word or phrase could replace "At first" in the fourth sentence without changing the sentence's meaning?

    A. Instead

    B. In particular

    C. Initially

    D. Later on

**8.** What went wrong the first time Shelby drove the skid car?

Include two pieces of information from the text in your answer.

9. Describe what happened after Bullock told Shelby what to do differently. Be sure to mention whether or not she was able to straighten out the car.

10. Bullock claims that students at the Bob Bondurant School of High Performance Driving are taught to drive better. What evidence in the text supports his claim?

Space Junk

by Josh Adler
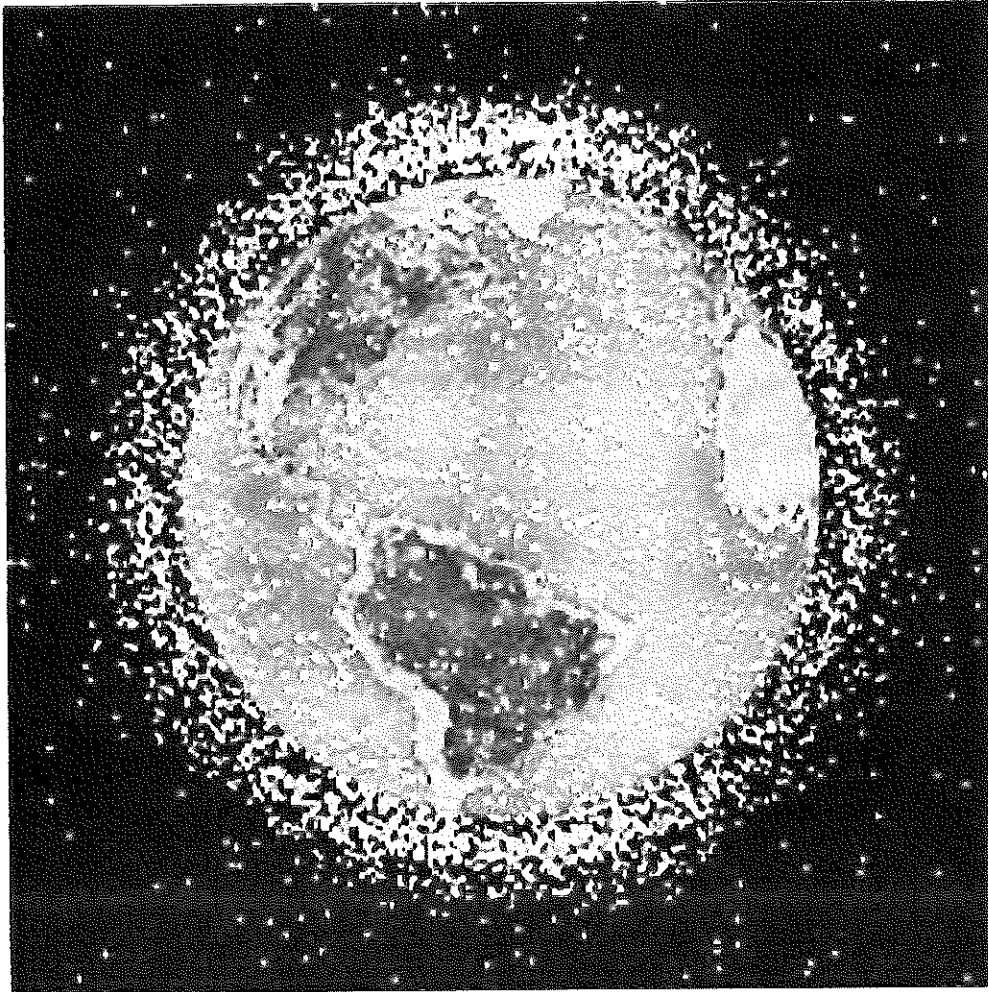
Many people know that trash is a big problem on planet Earth. What many people don't know is that trash has become a problem in outer space too. Years of space exploration have left tons of "space junk" in orbit around the planet.

According to *BBC News*, there are more than 22,000 pieces of junk in space around the earth. And these are just the items that we can see from the surface of the earth by telescopes or radars. There are also millions of smaller pieces of junk that we can't see.

Objects, like bits of old space rockets or satellites, move around the planet at very high speeds, so fast that even a very small piece can break important satellites or become dangerous to people, particularly astronauts. If the tiniest piece of junk crashed into a spacecraft, it could damage the vehicle. That's because the faster an object moves, the greater the impact if the object collides with something else.

To make things worse, when two objects in space collide, the two objects break into many smaller

pieces. This happened in 2009 when a working United States satellite collided with a Russian satellite that was no longer functioning. The collision caused the satellites to break into more than 2,000 pieces, increasing the items of space junk.

To help minimize additional space junk, countries around the world have agreed to limit the time their space tools stay in orbit to 25 years. Each tool must be built to fall safely into the earth's atmosphere, or the mass of gases that surround the earth, after that. In the upper parts of the atmosphere, it will burn up.

Many scientists are also proposing different ways to clean up space junk. In England a metal harpoon is being tested that can be fired into space trash, grip the trash, and then pull the space junk into the earth's atmosphere where it would burn up.

The Germans have been planning a space mission with robots that would collect pieces of space trash and bring them back to Earth so that they can be safely destroyed.

In 2007 the Chinese tried to blow up one of its older satellites with a missile. Unfortunately, the explosion only created thousands of smaller pieces, adding junk in space!

"In our opinion the problem is very challenging, and it's quite urgent as well," said Marco Castronuovo, an Italian Space Agency researcher who is working to solve the problem. One reason that it's urgent is that countries are sending more and more objects into space. Many of these objects are tools that help people use their cell phones or computers.

"The time to act is now; as we go farther in time we will need to remove more and more fragments," he says.

Name: _____ **Date:** _____

1. What has left tons of "space junk" in orbit around the earth?

    A. robots sent on space missions

    B. years of space exploration

    C. lack of recycling

    D. missiles in outer space

2. Countries around the world have agreed to limit the time their space tools stay in orbit to 25 years. As explained in the passage, what problem does this solution address?

    A. the increasing amount of space junk in orbit around the earth

    B. space agencies exploring space

    C. Chinese efforts to blow up a satellite

    D. objects moving around the planet at very high speeds

3. Trash has become a problem in outer space too.

What evidence from the text best supports this statement?

    A. The Chinese tried to blow up one of its satellites with a missile in 2007.

    B. In England, a metal harpoon is being tested that can be fired into space, gripping space trash and pulling it back into the earth's atmosphere to burn up.

    C. The Germans have been planning a space mission with robots to collect some space trash and bring it back to Earth.

    D. According to *BBC News*, there are more than 22,000 pieces of junk in space around the earth.

4. Why have countries agreed to build space tools that must fall safely into the earth's atmosphere?

    A. so that the tools can remove pollution from the atmosphere after returning from space

    B. so that the tools burn up in the atmosphere and don't become space junk

    C. so that the tools pollute the atmosphere instead of outer space

   D. so that the tools can analyze the different gases that make up the atmosphere after returning from space

5. What was the passage mostly about?

    A. different missions scientists are trying in space

    B. the effects that tiny pieces of space junk could have on the earth

    C. the problem of space junk and scientists' attempts to solve this problem

    D. the problem of trash on planet Earth

6. Read the following sentences: "'In our opinion the problem is very challenging and it's quite urgent as well,' said Marco Castronuovo, an Italian Space Agency researcher who is working to solve the problem. One reason that it's **urgent** is that countries are sending more and more objects into space. Many of these objects are tools that help people use their cell phones or computers."

What does the word **urgent** most nearly mean?

    A. easy to solve

    B. unnecessary

    C. needs immediate attention

    D. minor

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

Years of space exploration have left tons of "space junk," _____ many scientists are trying to find a way to clean up outer space.

    A. so

    B. instead

    C. because

    D. similarly

8. What did the 2009 collision of a United States satellite and a Russian satellite cause?

9. What have the Germans done to help clean up space junk?

10. Different countries have explored or are exploring different methods to clean up space junk. Explain why some methods may be more effective than others. Use evidence from the text to support your answer.

Plate Tectonics
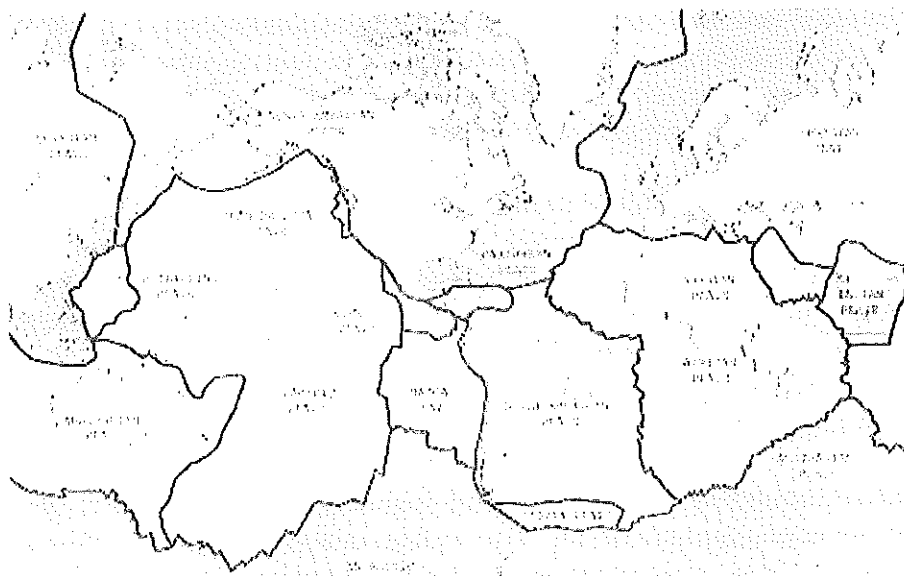
As solid as the earth may seem, there are always parts of its crust that are moving at an incredibly slow rate. Since the 1940s and 1950s, steady advancement in technology has allowed geologists to better understand the movement of the earth's plates and how these plates work.

The surface of the earth is made up of several crustal plates. Think of a massive puzzle. Instead of little cardboard cutouts, the puzzle pieces are gigantic slabs of rock that cover the earth. This "puzzle" sits right on top of the mantle's fluid and extremely hot layer, which is made up of several elements, the most prevalent being oxygen, silicon, and magnesium. The crust is divided into two types: oceanic crust and continental crust. As you can guess, the oceanic crust is composed of the pieces that cover the ocean floor, and the continental crust forms our continents.

Oceanic Crust

You may think that the ocean floor is stationary, meaning it doesn't move. However, that's not the case at all. The ocean floor is always moving, though at a very slow rate. In the past, geologists have mapped the ocean floor. By doing so, they discovered a large mountain range that lies underwater in between continents. This mountain range is called the *mid-oceanic ridge*.

As we learned before, the mantle is found directly underneath crustal plates. Since the mantle is made of very hot material, we find "convection currents" within this layer of the earth. Hot material at the deepest part of the mantle rises, then cools once it reaches the surface, then sinks back into the mantle, only to be reheated and rise again, repeating the cycle. Convection currents in the mantle cause the oceanic ridges to rise and form mountains. This is where many scientists say new crust is being generated. The hot magma from the mantle rises up between tectonic plates and spreads outward. So, as this happens, the earth's crust moves very slowly, carrying the continents with it. How slowly? Scientists measure the "spreading rate" in units of millimeters per year, with the faster rates measuring about 80 to 120 millimeters per year.

Types of Boundaries

Convergent boundaries are points at which tectonic plates move into one another. This can result in the formation of mountain ranges (like the Himalayas) as continental plates push against one another. Or it can result in something called subduction, where one plate rises over another as they collide, and the other sinks underneath. This also can form a mountain range, just in a different process. The plate that slowly slips underneath the other plate then melts in the mantle.

Divergent boundaries, on the other hand, are boundaries at which plates are pushed away from one another. These occur both in the ocean and on land. In the ocean, hot magma from within the earth rises out from deep-sea trenches where the plates are pushed farther away from each other. On land, plates are pulled apart as part of a chain reaction beginning with the movements happening in the ocean. The Great Rift Valley in Africa is an example of this. If the plates continue to be pulled apart there, eastern Africa can split from the continent to form a new landmass. But that won't take place for millions of years since the process happens so slowly.

The last type is a transform boundary, one that involves plates sliding against each other. The San Andreas Fault in California is an example of this. The motion of tectonic plates sliding against one another can sometimes cause earthquakes, some quite large and devastating. Transform boundaries are also called strike-slip faults due to the motion they make. This type of relatively fast plate movement that causes earthquakes is the only one we can really feel. Since the other plate shifts are so slow and gradual, we don't feel them.

Pangaea

Scientists have discovered that our continents were not always the same shape or in the locations they are in now. Our continents have changed and drifted closer together or farther apart over the course of billions of years. The most recent time when all the continents were part of the same landmass happened about 300 million years ago. Scientists have named this huge landmass Pangaea, calling it a "super-continent." It existed when dinosaurs roamed our planet. Seventy million years later, Pangaea started to shift apart. When this happened, it broke into two pieces: Laurasia and Gondwana. Laurasia later broke up into Eurasia and North America, while Gondwana separated into Australia, South America, Africa, and Antarctica to make our earth look like it does today. And since our continents are still drifting, it is very possible that we will have another super-continent hundreds of millions of years from now.

What information supports all of this? If you look closely at a map of the earth, you can kind of see where the continents possibly used to fit together. South America looks like it could slide right into Africa and the two would fit together. So scientists began to speculate. But it wasn't enough to assume our continents were once a single landmass just because they look like they could fit together. Therefore, scientists began looking at fossils on different continents. They found similar fossils on Australia and southern Asia. They also found that there were very similar types of rock on the western coast of Africa and the eastern coast of South America. The support lay in the fossils of the animals and plants on the different continents. We can only wonder what the earth will look like in another hundred million years!

Name: _____ Date: _____

1. What are the two types of crust on the earth's surface?

    A. continental and silicon

    B. transform and oceanic

    C. oceanic and continental

    D. divergent and convergent

2. What does the author compare the earth's surface to?

    A. dinner plates

    B. a massive puzzle

    C. the ocean

    D. an earthquake

3. Crustal movements can be dangerous to humans.

What evidence from the text supports this conclusion?

    A. Plate movement at transform boundaries can sometimes cause earthquakes, some quite large and devastating.

    B. Plate movement at convergent boundaries can result in the formation of mountain ranges like the Himalayas.

    C. The spreading rate of some continents can reach 120 millimeters per year.

    D. As solid as the earth may seem, there are always parts of its crust moving at incredibly slow rates.

4. Crustal movements in one location can affect locations far away.

What evidence from the text supports this conclusion?

    A. Steady advancement in technology has allowed geologists to better understand plate tectonics.

    B. The mantle is made up of elements like oxygen, silicon, and magnesium.

    C. Geologists mapped the ocean floor and discovered the mid-oceanic ridge.

    D. Divergent boundaries in the ocean create a chain reaction that pulls plates apart on land.

5. What is the main idea of this text?

    A. Pangaea was a "super-continent" that existed about 300 million years ago.

    B. Plate tectonics cause the earth's surface to shift and change in various ways.

    C. Scientists discovered similar fossil types and rock types on different continents.

    D. Crustal movements create convergent, divergent, and transform boundaries.

6. Read this sentence from the text.

"As you can guess, the oceanic crust is composed of the pieces that cover the ocean floor, and the continental crust forms our continents."

As used in the text, what does the word "composed" mean?

    A. studied

    B. divided

    C. made up

    D. shifted

7. Choose the answer that best completes the sentence.

The continents are slowly but constantly changing in location. _____, the continents used to form a single landmass called Pangaea but gradually drifted apart.

    A. For example

    B. Currently

    C. Including

    D. Above all

8. What are convection currents?

9. How do convection currents help form underwater mountains?

10. Explain two ways in which changes on the earth's surface are connected to changes below the earth's surface.

Support your answer with evidence from the text.

Pick Your Portion
by Meredith Matthews

How to right-size your meals

It's an ordinary morning. You wake up and help yourself to a bowl of cereal. But do you ever stop to think about exactly how much you're pouring into the bowl? And if you have pancakes instead, how many should you eat?

For many people, the amount of food they eat-their *portion size*-is decided by their eyes, their stomachs, or both. They might put as much food on their plates as they think they want, and then eat it simply because it's there. Or they might decide to put their forks down only once they begin to feel full. But neither of those is the healthiest way to figure out portion sizes.

Serving Size vs. Portion Size

So how do you know what the right portion size is? Nutrition information on the package is a good place to start. The label shows how much of each nutrient is in a given amount of food, explains Tandalayo Kidd. She's a nutrition expert at Kansas State University in Manhattan. But the serving size on the label is one thing. The amount a person thinks is a portion size might be somewhat different. In other words, the serving size listed on the package may not be the same amount you actually eat.

For example, a 3-ounce package of chips may actually contain three 1-ounce servings. So what happens if you wolf down the whole bag? You guessed it: You've actually eaten three servings of chips, not just one. The same goes for a lot of foods.

Without a nutrition label, it can be hard to tell exactly how much food is the right amount. When you have a slice of lasagna at your grandma's house or a dish of ice cream at a sundae party, how do you know whether you're eating a healthy portion size or going overboard? Nutrition experts have come up with ways to figure out portion size at a glance. Those guidelines won't give you the exact amount for every food, but they are a good estimate.

Portion Distortion

Portion sizes have been getting bigger through the years. Today's 20-ounce soft drink is roughly double the size of the bottle of cola your parents might have had when they were your age. Those types of changes make it easy to ignore the serving size on the label and instead treat the whole package as one serving. (Have you ever put the cap back on a 20-ounce drink to save the rest for the next day?)

Eating or drinking more than one serving at a time means you're getting more calories, according to Kidd. "Increased portion sizes encourage *overconsumption*," she says. Larger portion sizes affect the

amount people think they should eat. Brothers Jason J. and Patrick J., of Connecticut, have noticed that restaurant portions are often a lot bigger than they need to be. Patrick, 11, had an enormous breakfast recently at a diner. It had large portions of pancakes, eggs, toast, and potatoes. "I ate it all, though," he said.

Jason, 9, knows what happens when you fall for that, though. "If you're real hungry, you would probably eat it all," he says. "Then it makes you feel stuffed." But most of the time, the boys agree, that extra food goes to waste.

Large portions are often the norm at fast food restaurants as well. So-called value-sized or supersized meals, which are usually just a few cents more than a regular-sized meal, sure are tempting. They make you think that you are getting more bang for your buck, says Kidd. People like to get the most food possible for the money they are spending. But if you opt for supersized foods and meals, you're also choosing more calories, fat, and carbohydrates. A healthier option is to take advantage of the "value" of a value meal. Order the larger size, but split it with a friend.

Sensible Choices

Whether you're getting takeout, grabbing a snack, or cooking at home, it helps to pay attention to portions. Aim for balance. "You don't always want to be eating big portions all the time, and you don't want to be eating just tiny little portions that give you no protein or nutrients," says Sabrina F., 15, of Missouri.

The solution? Right-size your portion sizes! Sabrina's favorite food is chili. But she makes sure not to pig out when it's on the menu. "I don't usually get too big of a portion," she says. "I don't want to get full before my brain is able to realize that I'm full." That takes about 20 minutes. Eating slowly can help your brain get the message before you've eaten way more than you should.

Knowing what's a healthy portion is helpful when it comes to all types of food, from breakfast to dessert and everything in between. Sabrina's classmate Rita W. knows that. "Serving sizes can make the difference between enjoying a little pie or gaining 5 pounds," Rita says.

A Healthy Portion Looks Like ...

Nutrition expert Tandalayo Kidd offers some serving size guidelines. Use the visual reminders to help you keep your portions in line.

ReadWorks

Food Group	One Serving Size Equals ...	What a Serving Looks Like
Grains	1 slice of bread	
	1 cup ready-to-eat cereal	
	½ cup cooked rice, cooked pasta, or cooked cereal	ice cream scoop
Fruits	1 cup fruit	
	1 cup fruit or vegetable juice	
	½ cup dried fruit	
Vegetables	1 cup raw or cooked vegetables	one vegetable the
	1 cup vegetable juice	size of a baseball
	2 cups raw leafy greens	two cups for vegetables
Dairy	1 cup milk or yogurt	
	1½ ounces natural cheese	
	2 ounces processed cheese	
Meat & Beans	3 ounces meat, poultry, or fish	deck of cards meat,
	½ cup cooked dry beans	two tablespoons peanut butter
	2 tablespoons peanut butter	
	½ ounce nuts or seeds	
Oils		

Stephanie Wolfsteiner/Getty Images

Think About It Why, do you think, are portions at restaurants often larger than what one person should eat at a time? How can you eat the right amount when you're eating out?

Name: _____ **Date:** _____

1. What is portion size?

    A. the amount of food someone eats

    B. the amount of nutrients in a given amount of food

    C. the number of items that someone orders at a restaurant

    D. the number of people you can split a "value-sized" meal with

2. What does the author contrast with portion size?

    A. waist size

    B. shoe size

    C. clothing size

    D. serving size

3. Read this sentence from the text.

"Portion sizes have been getting bigger through the years."

What evidence in the text supports this statement?

    A. "When you have a slice of lasagna at your grandma's house or a dish of ice cream at a sundae party, how do you know whether you're eating a healthy portion size or going overboard?"

    B. "Today's 20-ounce soft drink is roughly double the size of the bottle of cola your parents might have had when they were your age."

    C. "So-called value-sized or supersized meals, which are usually just a few cents more than a regular-sized meal, sure are tempting."

    D. "Knowing what's a healthy portion is helpful when it comes to all types of food, from breakfast to dessert and everything in between."

4. Read these sentences from the text.

"Large portions are often the norm at fast food restaurants as well. So-called value-sized or supersized meals, which are usually just a few cents more than a regular-sized meal, sure are tempting. They make you think that you are getting more bang for your buck, says Kidd. People like to get the most food possible for the money they are spending. But if you opt for supersized foods and meals, you're also choosing more calories, fat, and carbohydrates. A healthier option is to take advantage of the 'value' of a value meal. Order the larger size, but split it with a friend."

Based on this paragraph, what can you infer about consuming calories, fat, and carbohydrates?

    A. Consuming lots of calories and fat is healthy, but consuming lots of carbohydrates is unhealthy.

    B. Consuming lots of calories, fat, and carbohydrates has no effect on a person's health.

    C. Consuming lots of calories, fat, and carbohydrates is unhealthy.

    D. Consuming lots of calories, fat, and carbohydrates is healthy.

5. What is the main idea of this text?

    A. If you are eating food that comes in a package, you should look at the nutrition label to figure out what the right portion size is.

    B. Nutrition experts have come up with ways for people to figure out portion size when eating food without a nutrition label.

    C. People should pay attention to serving size as well as portion size to make sure they are eating a healthy amount of food.

    D. So-called value-sized or supersized meals contain more calories, fat, and carbohydrates than regular-sized meals do.

6. Read these sentences from the text.

"Without a nutrition label, it can be hard to tell exactly how much food is the right amount. When you have a slice of lasagna at your grandma's house or a dish of ice cream at a sundae party, how do you know whether you're eating a healthy portion size or going overboard?"

What does the phrase "going overboard" mean here?

    A. trying too hard

    B. falling off the side of a ship

    C. eating a healthy amount

    D. eating too much

7. Read these sentences from the text.

"Whether you're getting takeout, grabbing a snack, or cooking at home, it helps to pay attention to portions. Aim for balance. 'You don't always want to be eating big portions all the time, and you don't want to be eating just tiny little portions that give you no protein or nutrients,' says Sabrina F., 15, of Missouri.

The solution? Right-size your portion sizes!"

How could the last two sentences best be combined?

    A. The solution is right-size your portion sizes?

    B. The solution being to right-size your portion sizes.

    C. The solution was to right-size your portion sizes.

    D. The solution is to right-size your portion sizes.

8. What have Jason and Patrick noticed about portions of food at restaurants?

_____

_____

_____

9. Read these sentences from the text.

"Portion sizes have been getting bigger through the years. Today's 20-ounce soft drink is roughly double the size of the bottle of cola your parents might have had when they were your age. Those types of changes make it easy to ignore the serving size on the label and instead treat the whole package as one serving. (Have you ever put the cap back on a 20-ounce drink to save the rest for the next day?)"

Based on this paragraph, what can you conclude about the effect that bigger portion sizes have had on the amount that people eat and drink?

_____

_____

_____

10. Explain whether people are more likely to eat too much or too little.

Support your answer with evidence from the text.

_____

_____

_____

Name: _____   Class: _____

Algebra

Solve for the variable.

1. $y + 1 = 3$ _____

2. $3 + y = 4$ _____

3. $y + 4 = 4$ _____

4. $y + 8 = 10$ _____

5. $y + 1 = 8$ _____

6. $6 + y = 14$ _____

7. $7 + y = 11$ _____

8. $y + 2 = 5$ _____

9. $5 + y = 8$ _____

10. $0 + y = 7$ _____

11. $y + -1 = 5$ _____

12. $y + 7 = 13$ _____

13. $y + 5 = 14$ _____

14. $y + -3 = 2$ _____

15. $3 + y = 12$ _____

16. $y + 0 = -3$ _____

17. $y + -2 = -5$ _____

18. $y + 0 = 5$ _____

19. $-3 + y = -6$ _____

20. $2 + y = 11$ _____

21. $y + 0 = 8$ _____

22. $8 + y = 7$ _____

23. $y + -2 = 3$ _____

24. $-1 + y = 1$ _____

25. $0 + y = -2$ _____

26. $y + 8 = 9$ _____

27. $5 + y = 2$ _____

28. $2 + y = 3$ _____

<u>Algebra</u>

Solve for the variable.

1. $y + 1 = 3$ $y = 2$

2. $3 + y = 4$ $y = 1$

3. $y + 4 = 4$ $y = 0$

4. $y + 8 = 10$ $y = 2$

5. $y + 1 = 8$ $y = 7$

6. $6 + y = 14$ $y = 8$

7. $7 + y = 11$ $y = 4$

8. $y + 2 = 5$ $y = 3$

9. $5 + y = 8$ $y = 3$

10. $0 + y = 7$ $y = 7$

11. $y + -1 = 5$ $y = 6$

12. $y + 7 = 13$ $y = 6$

13. $y + 5 = 14$ $y = 9$

14. $y + -3 = 2$ $y = 5$

15. $3 + y = 12$ $y = 9$

16. $y + 0 = -3$ $y = -3$

17. $y + -2 = -5$ $y = -3$

18. $y + 0 = 5$ $y = 5$

19. $-3 + y = -6$ $y = -3$

20. $2 + y = 11$ $y = 9$

21. $y + 0 = 8$ $y = 8$

22. $8 + y = 7$ $y = -1$

23. $y + -2 = 3$ $y = 5$

24. $-1 + y = 1$ $y = 2$

25. $0 + y = -2$ $y = -2$

26. $y + 8 = 9$ $y = 1$

27. $5 + y = 2$ $y = -3$

28. $2 + y = 3$ $y = 1$

PARCC

Partnership for Assessment of
Readiness for College and Careers
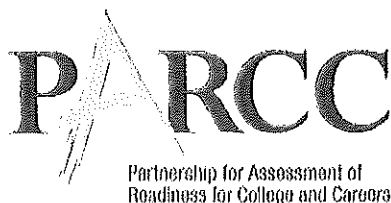
Assessment Reference Sheet

Grade 6

1 inch = 2.54 centimeters
1 meter = 39.37 inches
1 mile = 5280 feet
1 mile = 1760 yards
1 mile = 1.609 kilometers

1 kilometer = 0.62 mile
1 pound = 16 ounces
1 pound = 0.454 kilograms
1 kilogram = 2.2 pounds
1 ton = 2000 pounds

1 cup = 8 fluid ounces
1 pint = 2 cups
1 quart = 2 pints
1 gallon = 4 quarts
1 gallon = 3.785 liters
1 liter = 0.264 gallons
1 liter = 1000 cubic centimeters

Triangle	$A = \dfrac{1}{2}bh$
Right Rectangular Prism	$V = Bh$ or $V = lwh$

Student Name _____

PARCC

Partnership for Assessment of
Readiness for College and Careers
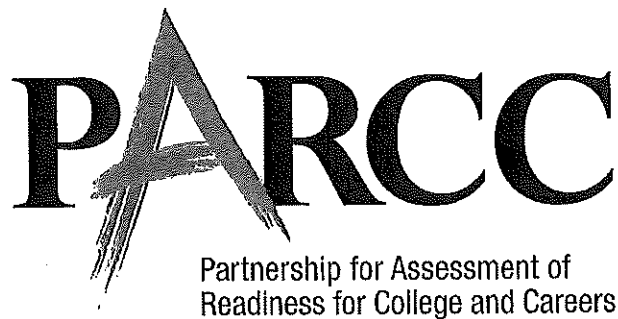
Grade 6
Mathematics
Test Booklet

Practice Test

Unit 1
(Non-Calculator)

Directions:

Today, you will take Unit 1 of the Grade 6 Mathematics Practice Test. You will not be able to use a calculator.

Read each question. Then, follow the directions to answer each question. Mark your answers by completely filling in the circles in your answer document. Do not make any pencil marks outside of the circles. If you need to change an answer, be sure to erase your first answer completely. If a question asks you to show or explain your work, you must do so to receive full credit. Only responses written within the provided space will be scored.

If you do not know the answer to a question, you may go on to the next question. If you finish early, you may review your answers and any questions you did not answer in this unit ONLY. Do not go past the stop sign.

GO ON ▶

Directions for Completing the Answer Grids

1. Work the problem and find an answer.

2. Write your answer in the boxes at the top of the grid.

3. Print only one number or symbol in each box. Do not leave a blank box in the middle of an answer.

4. Under each box, fill in the circle that matches the number or symbol you wrote above. Make a solid mark that completely fills the circle.

5. Do not fill in a circle under an unused box.

6. Fractions cannot be entered into an answer grid and will not be scored. Enter fractions as decimals.

7. See below for examples on how to correctly complete an answer grid.

EXAMPLES

To answer −3 in a question, fill in the answer grid as shown below.

To answer .75 in a question, fill in the answer grid as shown below.

3

GO ON ▶

1. A class of 25 students shares a class set of 100 markers. On a day with 5 students absent, which statement is true?

   A. For every 5 students, there is 1 marker.

   B. For every 4 students, there is 1 marker.

   C. For each student, there are 4 markers.

   D. For each student, there are 5 markers.

2. The area of a rectangular patio is $5\frac{5}{8}$ square yards, and its length is $1\frac{1}{2}$ yards. What is the patio's width, in yards?

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

   B. $4\frac{1}{8}$

   C. $7\frac{1}{8}$

   D. $8\frac{7}{16}$

4

3. This coordinate plane shows the location of point *W*.
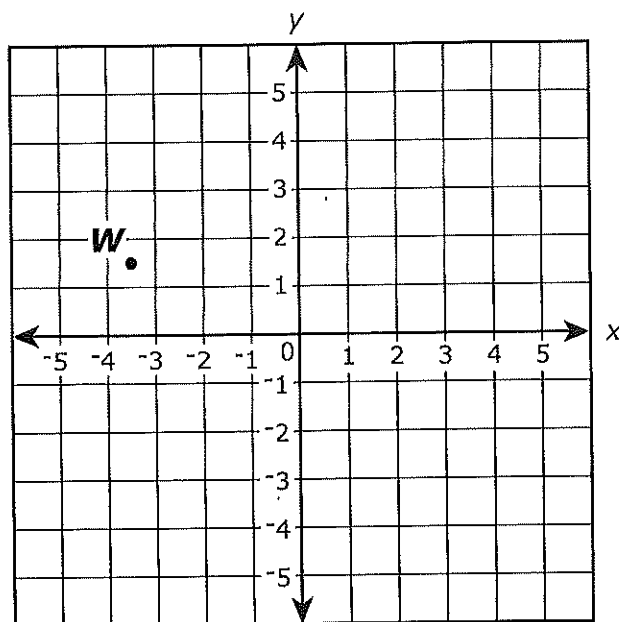
What is the value of the *x*-coordinate of point *W*? Enter your answer as a decimal to the nearest 0.5.

Enter your answer in the box.

4. Enter your answer in the box.

$33.8 \div 32.5 =$

GO ON ▶

5. Which equations with exponential expressions are true?

Select **all** that apply.

A. $3^3 = 3 \cdot 3$

B. $5^2 = 5 \cdot 5$

C. $5^4 = 4 \cdot 4 \cdot 4 \cdot 4 \cdot 4$

D. $7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 = 6^7$

E. $7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 = 7^6$

F. $7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 = 7^7$

6. Enter your answer in the box.

$34{,}992 \div 81 =$

7. These five rational numbers are plotted on a horizontal number line.

$$-\frac{2}{3}, \ \frac{7}{8}, \ -\frac{4}{5}, \ \frac{7}{10}, \ -\frac{4}{3}$$

Which statement about the locations on the number line of the rational numbers is true?

A. $-\frac{2}{3}$ is farthest to the left, and $\frac{7}{8}$ is farthest to the right.

B. $-\frac{4}{3}$ is farthest to the left, and $\frac{7}{8}$ is farthest to the right.

C. $-\frac{2}{3}$ is farthest to the left, and $\frac{7}{10}$ is farthest to the right.

D. $-\frac{4}{3}$ is farthest to the left, and $\frac{7}{10}$ is farthest to the right.

GO ON ▶

8. What is the greatest common factor of 16 and 48?

Enter your answer in the box.

9. Select each expression that is equivalent to $3(n + 6)$.

Select **all** that apply.

A. $3n + 6$

B. $3n + 18$

C. $2n + 2 + n + 4$

D. $2(n + 6) + (n + 6)$

E. $2(n + 6) + n$

10. What is the sum of 74.835 and 2.67?

Enter your answer in the box.

GO ON ▶

11. Small cubes with edge lengths of $\frac{1}{4}$ inch will be packed into the right rectangular prism shown.

$\frac{1}{4}$ in.

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

5 in.

$4\frac{1}{2}$ in.
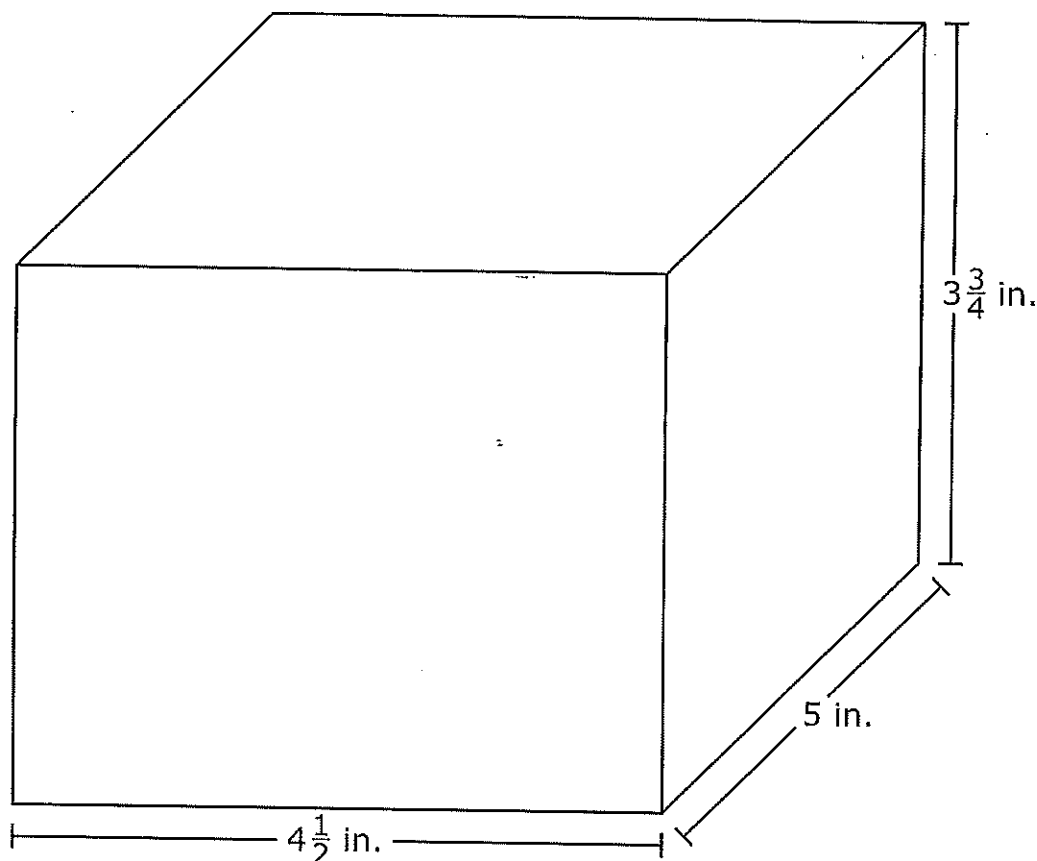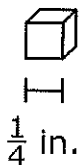
How many small cubes are needed to completely fill the right rectangular prism?

Enter your answer in the box.

GO ON ▶

12. The picture shows part of a thermometer measuring temperature in degrees Fahrenheit.
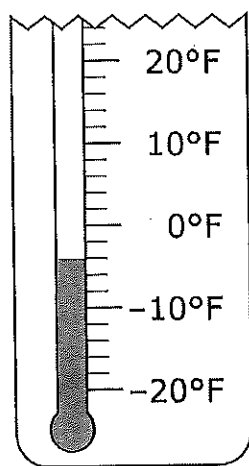
What is the temperature, in degrees Fahrenheit, shown on the thermometer to the nearest integer?

Enter your integer answer in the box.

13. Marshall took $36.75 to a fair. Each ticket into the fair costs x dollars. Marshall bought 3 tickets. Which expression represents the amount of money, in dollars, that Marshall had after he bought the tickets?

A. $36.75 - (3 + x)$

B. $36.75x - 3$

C. $36.75(3) - x$

D. $36.75 - 3x$

GO ON ▶

14. Which question is a statistical question?

    A. How tall is the oak tree?

    B. How much did the tree grow in one year?

    C. What are the heights of the oak trees in the schoolyard?

    D. What is the difference in height between the oak tree and the pine tree?

15. Joanne buys a rectangular rug with an area of $\frac{35}{4}$ square meters. The length of the rug is $\frac{7}{2}$ meters.

    What is the width, in meters, of the rug?

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

    B. $\frac{7}{8}$

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

    D. $\frac{7}{2}$

16. Thomas buys a case of bottled water. A case contains 36 bottles of water and costs $4.69. Thomas will sell each bottle of water for $0.75 at a school event.

    How much profit, in dollars, will Thomas earn if he sells all the bottles of water?

    Enter your answer in the box.

GO ON ▶

**17.** Three values on a number line are labeled f, g, and h.

$$f = -4$$
$$g = -g$$
$$h = -f$$

Which number line correctly shows the values of f, g, and h?

A.

f   h   g

-5 -4 -3 -2 -1   0   1   2   3   4   5

B.

f   h   g

-5 -4 -3 -2 -1   0   1   2   3   4   5

C.

f   g   h

-5 -4 -3 -2 -1   0   1   2   3   4   5

D.

h
f |g

-5 -4 -3 -2 -1   0   1   2   3   4   5
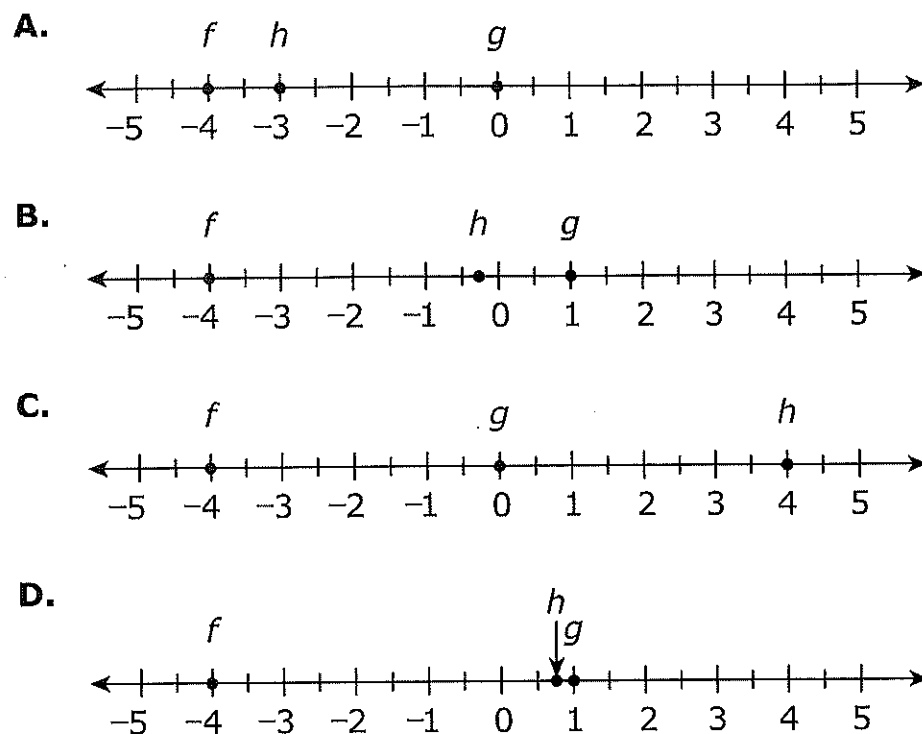
18. The median number of points scored by 9 players in a basketball game is 12. The range of the numbers of points scored by the same basketball players in the same game is 7.

Which statement is true based on the given information?

A. At least one player scored 12 points.

B. The greatest number of points scored is less than 19 points.

C. The mean number of points scored is greater than 12 points.

D. If the greatest number of points scored is 16, then the least number of points scored is 4.
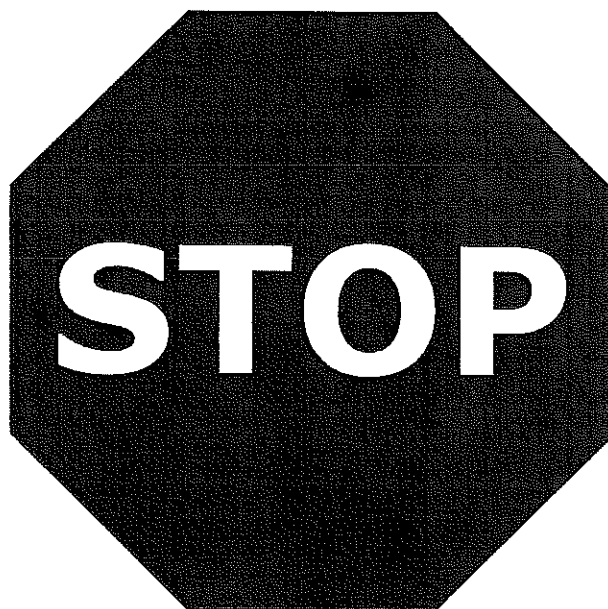
STOP

You have come to the end of Unit 1 of the test.

- Review your answers from Unit 1 only.
- Then, close your test booklet and answer document and raise your hand to turn in your test materials.

Unit 2
(Calculator)

Directions:

Today, you will take Unit 2 of the Grade 6 Mathematics Practice Test. You will be able to use a calculator.

Read each question. Then, follow the directions to answer each question. Mark your answers by completely filling in the circles in your answer document. Do not make any pencil marks outside of the circles. If you need to change an answer, be sure to erase your first answer completely. If a question asks you to show or explain your work, you must do so to receive full credit. Only responses written within the provided space will be scored.

If you do not know the answer to a question, you may go on to the next question. If you finish early, you may review your answers and any questions you did not answer in this unit ONLY. Do not go past the stop sign.

GO ON ▶

Directions for Completing the Answer Grids

1. Work the problem and find an answer.

2. Write your answer in the boxes at the top of the grid.

3. Print only one number or symbol in each box. Do not leave a blank box in the middle of an answer.

4. Under each box, fill in the circle that matches the number or symbol you wrote above. Make a solid mark that completely fills the circle.

5. Do not fill in a circle under an unused box.

6. Fractions cannot be entered into an answer grid and will not be scored. Enter fractions as decimals.

7. See below for examples on how to correctly complete an answer grid.

EXAMPLES

To answer −3 in a question, fill in the answer grid as shown below.

To answer .75 in a question, fill in the answer grid as shown below.

GO ON ▶

19. Which expression represents "6 more than x"?

    A. $x - 6$

    B. $6 \cdot x$

    C. $x + 6$

    D. $6 - x$

GO ON ▶

Use the information provided to answer Part A and Part B for question 20.

An advertising company is designing a new logo that consists of a shaded triangle inside a parallelogram.
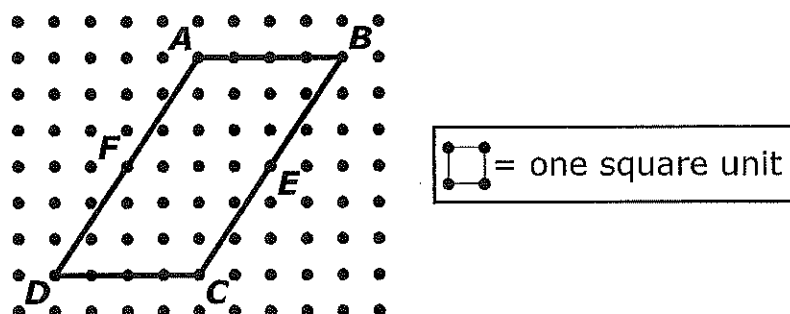
= one square unit

20. Part A

What is the area, in square units, of parallelogram *ABCD*?

Enter your answer in the box.

Part B

In the new logo, what fraction of the parallelogram is shaded?

A. $\frac{1}{12}$

B. $\frac{1}{6}$

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

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

GO ON ▶

21. Brianna's teacher asks her which of these three expressions are equivalent to each other.

Expression A: $9x - 3x - 4$

Expression B: $12x - 4$

Expression C: $5x + x - 4$

Brianna says that all three expressions are equivalent because the value of each one is -4 when $x = 0$.

Brianna's thinking is incorrect.

• Identify the error in Brianna's thinking.

• Determine which of the three expressions are equivalent.

• Explain or show your process in determining which expressions are equivalent.

Enter your answers and your explanation or process in the space provided.

22. Let x represent any number in the set of even integers greater than 1.

Which inequality is true for all values of x?

A. $x < 0$

B. $x > 0$

C. $x < 4$

D. $x > 4$

GO ON ▶

23. Anita brings 6 dolls to her grandma's house. These dolls represent 20% of Anita's doll collection, as shown in the diagram.

Number
of dolls
```
    0       6                              ?
    ├───────┼───────┼───────┼───────┼───────┤
   0%      20%     40%     60%     80%    100%
```
Percent
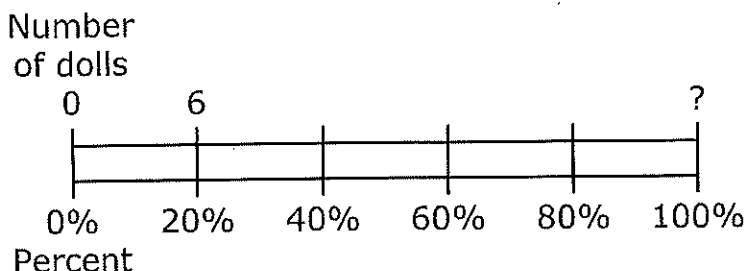
What is the total number of dolls in Anita's doll collection?

Enter your answer in the box.

24. A company makes yellow golf balls and white golf balls. The table shows the company's sales of yellow golf balls for the last 3 years.

Yellow Golf Balls

Year	Number of Yellow Golf Balls Sold
1	204,132
2	225,624
3	237,108

- The company expects sales of yellow golf balls to continue to increase in year 4.
- The company also expects the ratio of yellow golf ball sales to white golf ball sales in year 4 to be about 1 : 5.
- The average selling price of a box of 12 yellow or 12 white golf balls is $23.94.

Estimate the company's total sales, in dollars, of golf balls in year 4. Show all your work. Explain how you determined your estimate.

Enter your estimate, your work, and your explanation in the space provided.

19

GO ON ▶

25. What is the value of $a^2 + 3b \div c - 2d$, when $a = 3, b = 8, c = 2,$ and $d = 5$?

Enter your answer in the box.

Use the information provided to answer Part A through Part D for question 26.

Chad drove 168 miles in 3 hours.

26. Part A

How many miles per hour did Chad drive?

Enter your answer in the box.

Part B

Chad will drive 672 more miles. He continues to drive at the same rate.

How many hours will it take Chad to drive the 672 miles?

Enter your answer in the box.

Part C

Chad stopped and filled the car with 11 gallons of gas. He had driven 308 miles using the previous 11 gallons of gas.

How many miles per gallon did Chad's car get?

Enter your answer in the box.

Part D

Chad's car continues to get the same number of miles per gallon.

How many gallons of gas will Chad's car use to travel 672 miles?

Enter your answer in the box.

GO ON ▶

27. There are 5,280 feet in 1 mile. How many inches are in 2 miles?

    A. 10,560

    B. 63,360

    C. 126,720

    D. 253,440

28. The graph shows the location of point P and point R. Point R is on the y-axis and has the same y-coordinate as point P.
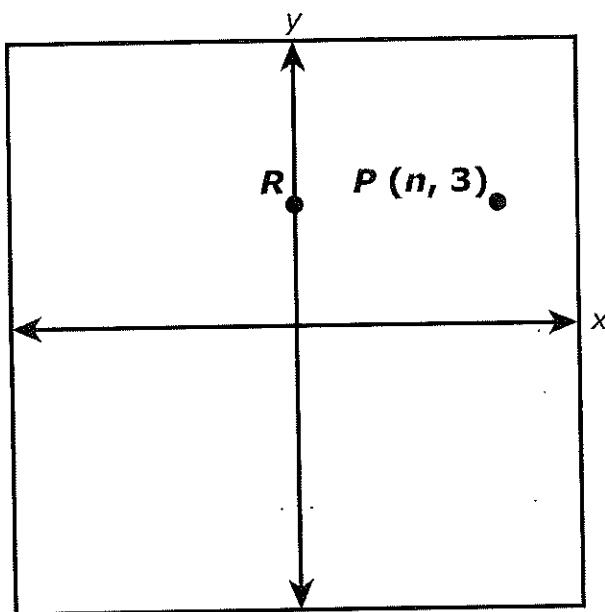
Point Q is graphed at $(n, ^-2)$. The distance from point P to point Q is equal to the distance from point P to point R.

What is the distance from point P to point Q? What is the value of n? Explain how you determined the distance from point P to point Q, and the value of n.

Enter your answers and your explanations in the space provided.

GO ON ▶

Use the information provided to answer Part A and Part B for question 29.

The ratio of the sales tax to the amount of a purchase is a fixed number in Town Q. The table shows the sales tax for a purchase of $1,200.

Town Q Tax

Purchase	Sales Tax
$1,200	$72
$2,500	?
?	$108

29. Part A

What is the sales tax for a purchase of $2,500?

A. $18.06

B. $34.72

C. $144.00

D. $150.00

Part B

What is the cost of an item with a sales tax of $108?

A. $432

B. $648

C. $1,092

D. $1,800
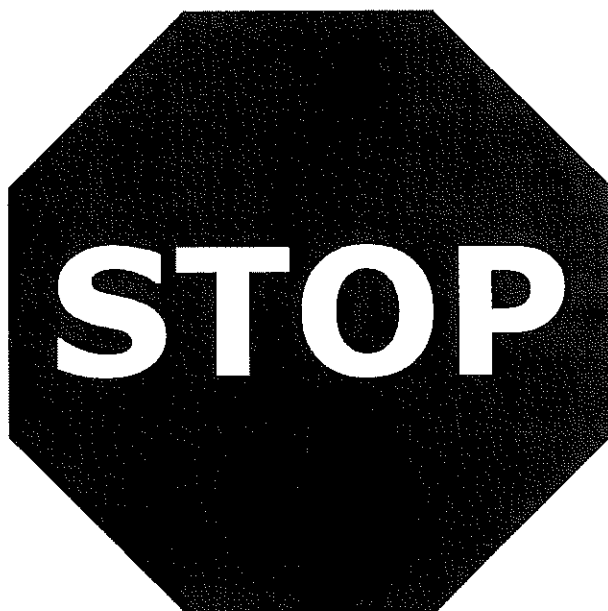
STOP

You have come to the end of Unit 2 of the test.

- **Review your answers from Unit 2 only.**
- **Then, close your test booklet and answer document and raise your hand to turn in your test materials.**

Unit 3
(Calculator)

Directions:

Today, you will take Unit 3 of the Grade 6 Mathematics Practice Test. You will be able to use a calculator.

Read each question. Then, follow the directions to answer each question. Mark your answers by completely filling in the circles in your answer document. Do not make any pencil marks outside of the circles. If you need to change an answer, be sure to erase your first answer completely. If a question asks you to show or explain your work, you must do so to receive full credit. Only responses written within the provided space will be scored.

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GO ON ▶

Directions for Completing the Answer Grids

1. Work the problem and find an answer.

2. Write your answer in the boxes at the top of the grid.

3. Print only one number or symbol in each box. Do not leave a blank box in the middle of an answer.

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6. Fractions cannot be entered into an answer grid and will not be scored. Enter fractions as decimals.

7. See below for examples on how to correctly complete an answer grid.

EXAMPLES

To answer −3 in a question, fill in the answer grid as shown below.

To answer .75 in a question, fill in the answer grid as shown below.

25

GO ON ▶

Unit 3

30. During a sale, all pillows are $\frac{1}{4}$ off the regular price.

Which expression shows the amount of money saved on a pillow that had a regular price of *d* dollars?

A. $d \div 4$

B. $d \times 4$

C. $d + 4$

D. $d - 4$

26

GO ON ▶

Use the information provided to answer Part A and Part B for question 31.

This diagram shows a number line.
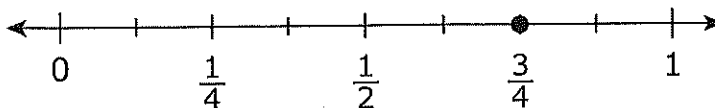
31. Part A

James has a board that is $\frac{3}{4}$ foot long. He wants to cut the board into pieces that are each $\frac{1}{8}$ foot long.

How many pieces can James cut from the board? Explain how James can use the number line diagram to determine the number of pieces he can cut from the board.

Enter your answer and your explanation in the space provided.

Part B

Write an equation using division that represents how James can find the number of pieces he can cut from the board.

Enter your equation in the space provided.

GO ON ▶

Use the information provided to answer Part A and Part B for question 32.

Greg bought 4 notebooks for $6.40.

32. Part A

Which equation can be used to determine the price, *p*, in dollars, of 1 notebook?

A. $\dfrac{p}{4} = 6.40$

B. $\dfrac{p}{6.40} = 4$

C. $4p = 6.40$

D. $6.40p = 4$

Part B

What is the price, in dollars, of 1 notebook?

Enter your answer in the box.

GO ON ▶

33. Part A

A group of hikers buys 8 bags of mixed nuts. Each bag contains $3\frac{1}{2}$ cups of mixed nuts. The mixed nuts are shared evenly among 12 hikers. How many cups of mixed nuts will each hiker receive? Show your work or explain your answer.

Enter your answer and your work or explanation in the space provided.

Part B

The hikers plan to visit a scenic lookout. They will rest after they hike 2 miles. Then they will hike the remaining $1\frac{3}{4}$ miles to the lookout. The trail the hikers will use to return from the lookout is $\frac{1}{2}$ mile shorter than the trail they will use to go to the lookout. Each hiker will bring $\frac{1}{4}$ gallon of water for each mile to and from the lookout.

- Determine the total distance, in miles, each hiker will hike. Show your work or explain your answer.
- Determine the total number of gallons of water each hiker will bring. Show your work or explain your answer.

Enter your answers and your work or explanations in the space provided.

GO ON ▶

Use the information provided to answer Part A and Part B for question 34.

This right rectangular prism is built with small cubes.

1 inch

$\frac{3}{4}$ inch

$\frac{1}{2}$ inch
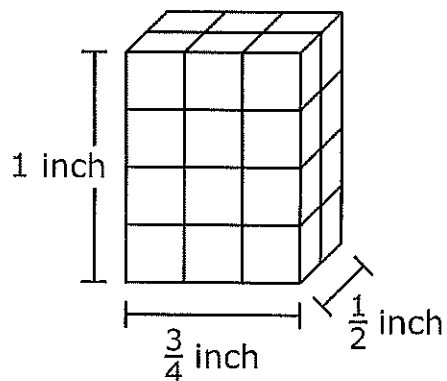
34. Part A

What is the volume, in cubic inch(es), of the right rectangular prism?

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

B. $\frac{2}{3}$

C. $1\frac{2}{3}$

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

GO ON ▶

Part B

What is the volume, in cubic inch(es), of 1 of the small cubes?

A. $\frac{1}{64}$

B. $\frac{1}{16}$

C. $\frac{9}{16}$

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

GO ON ▶

Unit 3

Use the information provided to answer Part A and Part B for question 35.

A student filled a right rectangular prism-shaped box with one inch cubes to find the volume, in cubic inches. The student's work is shown.

Box Filled with Cubes

Top layer →
(63 cubes)
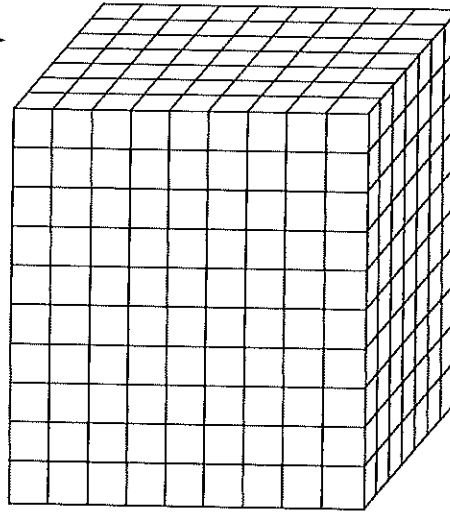
Student's Work

- I packed my box full of cubes. Each cube has a volume of 1 cubic inch.
- I counted 63 cubes in the top layer.
- Since there are 9 layers of cubes below the top layer, I solved 63 × 9 = 567. So there are 567 cubes.
- The volume of my box is 567 cubic inches.

35. Part A

Explain why the student's reasoning is incorrect. Provide the correct volume, in cubic inches, of the box.

Enter your explanation and the correct volume in the space provided.

GO ON ▶

Part B

A second box also has a base area of 63 square inches, but it has a volume of 756 cubic inches.

What is the height, in inches, of the second box? Explain or show how you determined the height.

Enter the height and your explanation or work in the space provided.

Use the information provided to answer Part A and Part B for question 36.

The number of blueberry muffins that a baker makes each day is 40% of the total number of muffins she makes.

36. Part A

On Monday, the baker makes 36 blueberry muffins.

What is the total number of muffins that the baker makes on Monday?

Enter your answer in the box.

Part B

On Tuesday, the baker makes a total of 60 muffins.

How many blueberry muffins does the baker make on Tuesday?

Enter your answer in the box.

GO ON ▶

37. Sam's two new aquariums each hold exactly 200 gallons of water. One aquarium will hold small fish and the other will hold large fish. Now he needs new fish for his aquariums.

- He will buy 5 small fish for every 10 gallons of water in the aquarium.
- He will buy 8 large fish for every 40 gallons of water in the aquarium.

What is the total number of fish Sam will have? What will be the ratio of Sam's small fish to large fish? Show or explain the steps you used to solve this problem.

Enter your answers and your work or explanation in the space provided.

Use the information provided to answer Part A and Part B for question 38.

Janet surveyed a class of students. She recorded the number of hours that each student volunteered. This line plot shows the results of the survey.

Volunteer Time

```
                  X
                  X
            X  X           X
         X  X  X        X  X  X
      X  X  X  X  X  X  X  X  X
   <--+--+--+--+--+--+--+--+--+-->
      0  1  2  3  4  5  6  7  8
```
Number of Hours
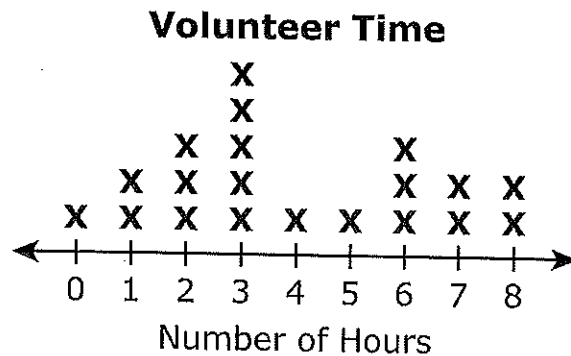
38. Part A

How many students did Janet survey?

Enter your answer in the box.

Part B

What is the mean number of hours volunteered by the students in the survey?

Enter your answer in the box.

34

STOP
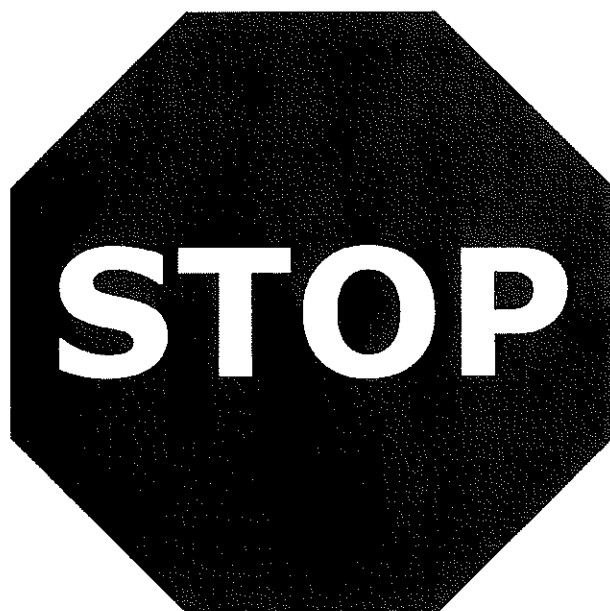
You have come to the end of Unit 3 of the test.

- Review your answers from Unit 3 only.
- Then, close your test booklet and answer document and raise your hand to turn in your test materials.

Unit 3

6 - MTH

Name:_____Date:_____

1. There are 24 adults and 30 children at a science museum. What is the ratio of children to total people at the science museum?

2. A study showed that the ratio of the number of people who get their news from social media to the number of people who get their news from other sources is 3:7.

   Based on the ratio, how many people in a town of 900 people get their news from social media?

3. Tickets for a baseball game cost $60 for a family of 5. Adult and youth tickets cost the same amount. Based on this information, decide whether each statement is TRUE or FALSE. Check TRUE or FALSE for each row.

	TRUE	FALSE
2 tickets cost $24.		
For $40, you can buy 4 tickets.		
The cost is $12 per ticket.		
The cost for 10 tickets is $65.		

4. It takes Mildred about 3 minutes to walk 2 blocks. A point has been plotted in the coordinate plane to represent this situation.

    a. Plot a second point that represents an equivalent ratio.
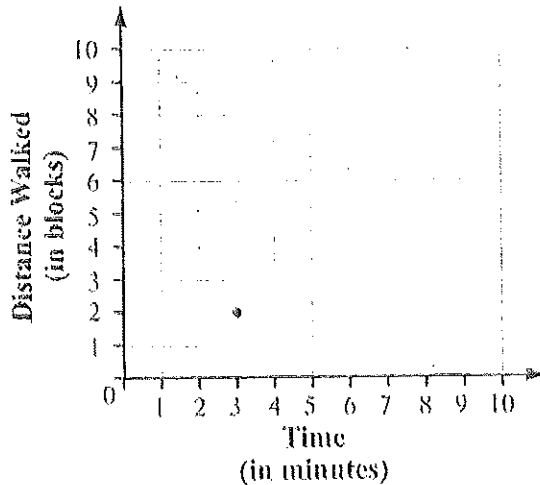
    b. Explain what the coordinates of the point you plotted represent.

5. Two jars of sauce are needed to make 1 tray of lasagna. One box of noodles is needed to make 2 trays of lasagna. What is the ratio of jars of sauce to boxes of noodles for this lasagna?
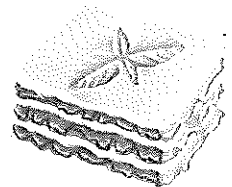
6. A store has two different sizes of ice cream. The smaller container costs $3.87 for 48 ounces. The larger container costs $6.42 for 128 ounces. Which ice cream costs less per ounce? Explain your answer using numbers, words, and/or pictures.

5

7. Penelope likes to drink flavored water by adding flavor enhancer. She likes to mix 0.5 teaspoon of flavor enhancer for every 8 fluid ounces of water. Below are several flavored water mixtures made by Penelope's friends.

   a. Circle all of Penelope's friends who like the same ratio of water to flavor enhancer as Penelope.

	Harry	Isabella	Jefferson	Klara	Leo	Marty
Flavor (tsp.)	8	6	5	1	4	2
Water (fl. oz.)	128	72	80	16	64	24

   b. Choose one of the answers you circled. Explain how you know the water has the same flavor intensity.

8. Alan is making banana bread. The ratio of cups of mashed bananas to cups of flour for his recipe is 6:3.

   a. Alan uses 3 cups of mashed bananas to make 1 loaf. How many cups of flour will he use? Explain your answer using numbers, words, and/or pictures.

   b. Erik uses Alan's recipe to make banana bread. Erik uses 9 cups of flour in total. How many loaves does Erik make? Explain your answer using numbers, words, and/or pictures.

6

9. Jenna's family is going on a trip to visit relatives.
   - After driving 72 miles, they used 3.2 gallons of gas.
   - Her family has 850 miles remaining on their road trip.
   - The gas tank in their car can hold 15 gallons.

They filled the gas tank at the start of the road trip. They plan to only stop to fill up when their gas tank nears empty. There are plenty of gas stations along their route.

How many additional stops for gas will Jenna's family need to make to get to their destination? Explain your answer using numbers, words, and/or pictures.

7

Name: _____

Write a number in every blank to make true equations.

1. $2.3 + 0.5(3 + x) =$ ___ $x +$ ____

2. $\frac{8}{6} + (\frac{3}{8} + x)(2) =$ ___ $x +$ ____

3. $2y + 3x + 5y + 6x * 4 =$ ___ $x +$ ___ $y +$ ____

4.
   a. Circle all the expressions that are equivalent to $7b + 38$.

   $7(b + 5) + 3$ $\qquad\qquad\qquad\qquad$ $7b + 7 \times 8$

   $b + 38$ $\qquad\qquad\qquad\qquad\qquad$ $7b + (7 \times 5) + 3$

   b. Show that the expressions you circled above are equivalent to $7b + 38$.

5. There is one mistake in the work shown below. Find the mistake. Write the correct result next to where the mistake occurred.

$P + P + 6(3P + 4) + 4P$	$= 2P + 6(3P + 4) + 4P$	
	$= 6(3P + 4) + 2P + 4P$	
	$= (3P + 4) + 6 + 2P + 4P$	
	$= (3P + 4) + 6 + 6P$	

6. Write an expression for the perimeter of this triangle. _____
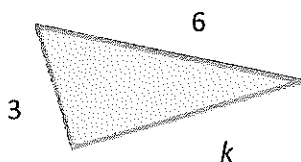
7.

   a. A square bathroom tile has a length of T. Write an expression for the area of this tile.

$$T$$

_____
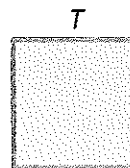
   b. Use this expression to find the area of the tile if the side length is 9 cm.

_____

8. Write an expression for "add 9 to A then multiply by 2." _____

9. A three digit number has a hundreds digit S, tens digit T, and ones digit U.

S	T	U
↑	↑	↑
hundreds digit	tens digit	ones digit

Write an expression that gives the value of the number.

The Concept of Ratios - Step-by-Step Lesson

1) 30 students are going on a picnic and 3 students are staying at home. What is the ratio of the number of students who are staying at home to the number of students who are going on the picnic?
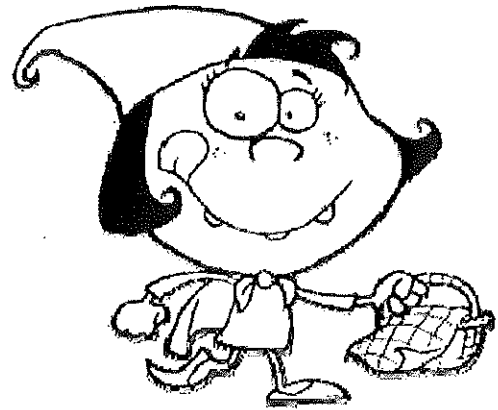
Explanation:

Step 1) First, see what is being asked.

Step 2) Now read the question and understand you are being asked about a ratio.

Number of students that went on the picnic = 30

Number of students that stayed home = 3

Step 3) We have to write the ratio of the number of students who are staying at home to the number of students who are going on a picnic.

Therefore, the answer will be 3:30

Or

We can simplify the ration further if we divide both with the common number of 3. The answer will be 1:10.

The Concept of Ratios - Independent Practice Worksheet

Complete the following questions.

1. There are 38 cars parked in the parking structure. The parking structure is not full to capacity. There are 13 parking spaces that are empty. What is the ratio of available parking spaces to parked cars?
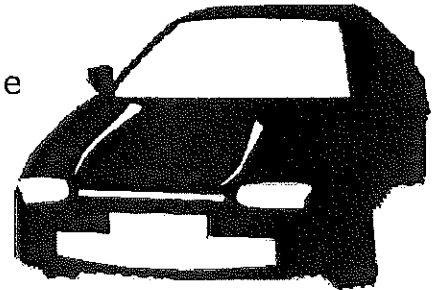
2. There are 17 occupied seats on the bus, 11 seats are empty. What is the ratio of number of occupied seats to empty seats?

3. 15 boys and 16 girls took part in the basketball competition. What is the ratio of the number of girls to the number of boys who participate in the competition?

4. A group of friends went out for dinner. 19 of the diners ordered vegetarian food and 14 ordered non-vegetarian food. What is the ratio of the number of vegetarian meals to the number of non-vegetarian meals?

5. Jenny distributes 33 candies and 37 chocolates to each student in the class on her birthday. What is the ratio of the number of chocolates to candies distributed to each student in the class on her birthday?

6. There are 8 male teachers and 5 female teachers who teach English in the school. What is the ratio of the number of male teachers to the number of female teachers?

7. In the swimming pool, 26 people can swim and 20 people do not know how to swim. What is the ratio of the number of people who can swim to those who do not know how to swim?

8. During the rainy season 45 people are wearing raincoats and 35 people are using umbrellas at the picnic spot. What is the ratio of the number of people in raincoats to the number of people using umbrellas at the picnic spot?

9. 5 students were working on the computer and 12 students were playing games on their computers. What is the ratio of number of students playing games in class to the number of students working on the computer?

10. Elis's family ordered 4 veggie crunch pizzas and 2 double cheese crust pizzas. What is the ratio of the number of veggie crunch pizzas to the number of double cheese crust pizzas?

Name _____   Date _____

The Concept of Ratios - Matching Worksheet

Match the pictures to their correct ratio. Write the letter of the answer that matches the picture with the ratio.

1. What is the ratio of pink flowers to orange flowers?   a.   6:3

_____
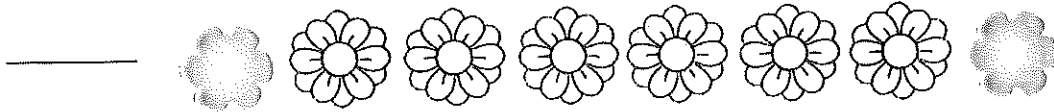
2. What is the ratio of red huts to blue huts?   b.   6:2

_____
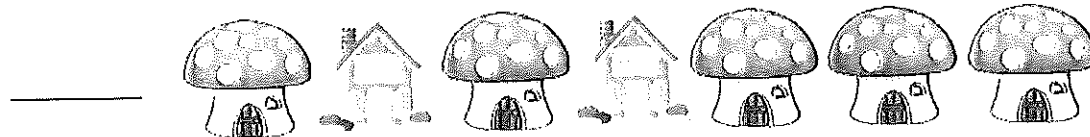
3. What is the ratio of yellow cars to the purple cars?   c.   3:2

_____
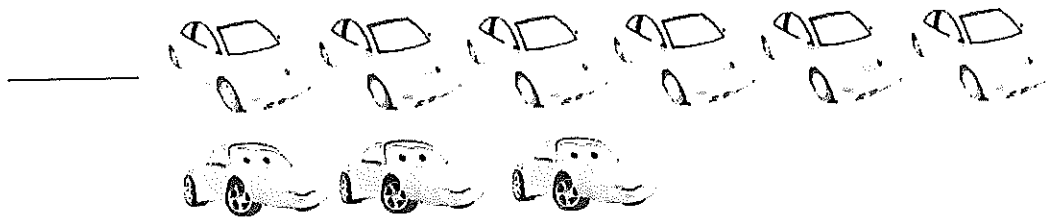
4. What is the ratio of bats with balls to bats without balls?   d.   5:2

_____

5. What is the ratio of lemonade to the fresh lime soda?   e.   7:4

_____
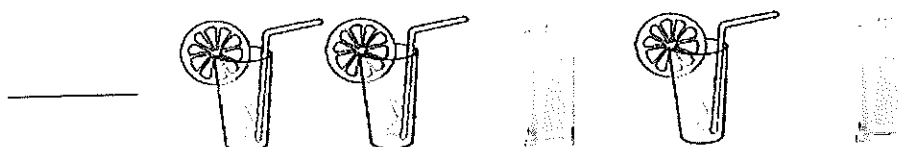
Name _____   Date _____

Lesson 1 Unit Rates and Ratios

a. We pay $100 for 20 pans of pizza?

How much was each pan of pizza?

b. David can write 600 words in an hour. How many words can he write each minute?

Explanation:

Step 1) First determine what is being asked.

Step 2) Read the question again to make sure you understand what information is wanted.

    a.   Cost of 20 pans of pizza = $100

         Cost of 1 pan of pizza = 100 / 20

         Cost of each pizza = $5

    b.   In 1 hr = 600 words

         1 min = 60 seconds

         1 min = 600/ 60

         1 min = 10 words

         He can write 10 words in a minute.

Name _____   Date _____

Complete the following problems.

1. Susan tips at the rate of $75 to 5 waiters. How many waiters will she be tipping, if she can afford a $90 tip?

2. The mobile company charges $180 for an hour of service. How many dollars are customers charged every minute?

3. A motor bike gets 60 kilometers per gallon of gasoline. How many gallons of gasoline would the bike need to travel 240 kilometers?

4. A water cooler fills 150 glasses in 30 minutes. How many glasses of water can the cooler fill per minute?

5. A car can travel 120 km in 2 hours. How long will it take the car to travel 300 km?

6. Amilio's designs call for 7 rectangles in every 140 cm. How many rectangles will be present in 220 cm?

7. 2 balls can complete a full rotation in 120 minutes. How many balls can complete a full rotation in 180 min?

8. Jeff's trip will cost $9 if he has 2 attendees at the conference. If there are 36 attendees, how much will the trip cost Jeff?

9. A segment is 10 cm long and is divided into 5 equal parts. If it is divided into 8 equal parts, how many segments long will it be?

10. Maria has 64 flowers. She makes 8 bouquets with the flowers. How many bouquets of flowers will she have if she has 80 flowers?

Grade 6 Math: Greatest Common Factor (GCF)

Select the correct answer(s) from the given options:

1. What is the greatest common factor of 2 and 8?
   a) 2
   b) 4
   c) 8
   d) 16

   Answer:_____

2. What is the greatest common factor of 16 and 20?
   a) 8
   b) 4
   c) 2
   d) 5

   Answer:_____

3. What is the greatest common factor of 24 and 27?
   a) 8
   b) 4
   c) 3
   d) 6

   Answer:_____

4. What is the greatest common factor of 18 and 24?
   a) 3
   b) 6
   c) 8
   d) 4

   Answer:_____

5. What is the greatest common factor of 14 and 63?
   a) 2
   b) 7
   c) 1
   d) 9

   Answer:_____

6. What is the greatest common factor of 40 and 72?
   a) 8
   b) 2
   c) 6
   d) 4

   Answer:_____

7. What is the greatest common factor of 48 and 84?
   a) 8
   b) 12
   c) 6
   d) 10

   Answer:_____

8. What is the greatest common factor of 45 and 75?
   a) 5
   b) 10
   c) 25
   d) 15

   Answer:_____

Grade 6 Math: Divide Decimals by Decimals

Select the correct answer(s) from the given options:

1. Divide:
   $0.8 \div 0.4 =$
   a) 2
   b) 2.2
   c) 0.2
   d) 0.02

   Answer:_____

2. Divide:
   $16.8 \div 3.2 =$
   a) 52.5
   b) 5.25
   c) 5.52
   d) 5.2

   Answer:_____

3. Divide:
   $27.84 \div 7.5 =$
   a) 37.12
   b) 371.2
   c) 3.812
   d) 3.712

   Answer:_____

4. Divide:
   $48.38 \div 8.2 =$
   a) 5.9
   b) 5.8
   c) 59
   d) 5.7

   Answer:_____

5. Divide:
   $566.25 \div 45.3 =$
   a) 16.5
   b) 1.25
   c) 15.2
   d) 12.5

   Answer:_____

6. Divide:

35.775 ÷ 7.5 =
a) 40.7
b) 4.07
c) 47.7
d) 4.77

Answer:_____

7. Divide:

9 tenths ÷ 3 tenths =
a) 0.3
b) 30
c) 3
d) 0.03

Answer:_____

8. Divide:

18 tenths ÷ 3 tenths =
a) 60
b) 0.6
c) 6
d) 0.06

Answer:_____

9. Divide:

24 hundredths ÷ 6 hundredths =
a) 0.4
b) 0.04
c) 40
d) 4

Answer:_____

Name: _____ Class: _____

Decimals

Round to the underlined digit.

1. <u>5</u>1.41 = _____
2. <u>4</u>2.76 = _____
3. <u>1</u>9.20 = _____

4. <u>3</u>9.95 = _____
5. <u>3</u>1.85 = _____
6. <u>2</u>5.74 = _____

7. <u>5</u>4.13 = _____
8. <u>5</u>5.83 = _____
9. <u>7</u>5.77 = _____

10. <u>2</u>8.91 = _____
11. <u>8</u>0.88 = _____
12. <u>8</u>4.44 = _____

13. <u>8</u>8.52 = _____
14. <u>1</u>5.73 = _____
15. <u>3</u>5.99 = _____

16. <u>2</u>8.90 = _____
17. <u>1</u>8.94 = _____
18. <u>7</u>5.35 = _____

19. <u>7</u>0.35 = _____
20. <u>5</u>3.85 = _____
21. <u>7</u>5.61 = _____

22. <u>4</u>6.82 = _____
23. <u>7</u>7.00 = _____
24. <u>9</u>8.98 = _____

25. <u>5</u>8.74 = _____
26. <u>9</u>6.05 = _____
27. <u>3</u>2.02 = _____

28. <u>5</u>0.54 = _____
29. <u>5</u>0.76 = _____
30. <u>7</u>4.57 = _____

31. <u>1</u>8.33 = _____
32. <u>6</u>0.71 = _____
33. <u>2</u>7.34 = _____

34. <u>8</u>1.61 = _____
35. <u>3</u>4.85 = _____
36. <u>5</u>1.25 = _____

Decimals

Round to the underlined digit.

1. $\underline{5}1.41$ = 50   2. $\underline{4}2.76$ = 40   3. $\underline{1}9.20$ = 20

4. $\underline{3}9.95$ = 40   5. $\underline{3}1.85$ = 30   6. $\underline{2}5.74$ = 30

7. $\underline{5}4.13$ = 50   8. $\underline{5}5.83$ = 60   9. $\underline{7}5.77$ = 80

10. $\underline{2}8.91$ = 30   11. $\underline{8}0.88$ = 80   12. $\underline{8}4.44$ = 80

13. $\underline{8}8.52$ = 90   14. $\underline{1}5.73$ = 20   15. $\underline{3}5.99$ = 40

16. $\underline{2}8.90$ = 30   17. $\underline{1}8.94$ = 20   18. $\underline{7}5.35$ = 80

19. $\underline{7}0.35$ = 70   20. $\underline{5}3.85$ = 50   21. $\underline{7}5.61$ = 80

22. $\underline{4}6.82$ = 50   23. $\underline{7}7.00$ = 80   24. $\underline{9}8.98$ = 100

25. $\underline{5}8.74$ = 60   26. $\underline{9}6.05$ = 100   27. $\underline{3}2.02$ = 30

28. $\underline{5}0.54$ = 50   29. $\underline{5}0.76$ = 50   30. $\underline{7}4.57$ = 70

31. $\underline{1}8.33$ = 20   32. $\underline{6}0.71$ = 60   33. $\underline{2}7.34$ = 30

34. $\underline{8}1.61$ = 80   35. $\underline{3}4.85$ = 30   36. $\underline{5}1.25$ = 50

Name: _____   Class: _____

<u>Decimals</u>

Solve for the variable.

1. $1.25 = 0.9y + 0.8$ _____

2. $0.6 - y = 0.3$ _____

3. $-0.1 = y \div 2$ _____

4. $0.46 = 0.4y - -0.1$ _____

5. $0.9 = y \div 0.7$ _____

6. $9.64 = 10 - 0.4y$ _____

7. $0.9y - 0.5 = 0.58$ _____

8. $-0.3y + 0.2 = -0.01$ _____

9. $0.54 = y \times 0.9$ _____

10. $0.34 = 0.9y - 0.2$ _____

11. $9.36 = 9.9 - 0.9y$ _____

12. $0.63 = 0.9y - 0.9$ _____

13. $0.78 = 0.6 - -0.2y$ _____

14. $0.8 + 0.7y = 0.73$ _____

15. $0.1 \times y = 0.08$ _____

16. $y \div -0.2 = -0.3$ _____

17. $0.28 = 0.4 \times y$ _____

18. $0.8 + -0.2y = 0.76$ _____

19. $0.34 = 0.5 + -0.2y$ _____

20. $0.1y + 0.9 = 0.94$ _____

21. $0.56 = 0.7y - 0$ _____

22. $0.01 = 0.1 \times y$ _____

23. $y \div 0.9 = 0$ _____

24. $0.28 = 0.3 + 0.1y$ _____

25. $9.74 = 10.3 - 0.8y$ _____

26. $0.3 = 0.15 \div y$ _____

__Decimals__

Solve for the variable.

1. $1.25 = 0.9y + 0.8$ _y = 0.5_

2. $0.6 - y = 0.3$ _y = 0.3_

3. $-0.1 = y \div 2$ _y = -0.2_

4. $0.46 = 0.4y - -0.1$ _y = 0.9_

5. $0.9 = y \div 0.7$ _y = 0.63_

6. $9.64 = 10 - 0.4y$ _y = 0.9_

7. $0.9y - 0.5 = 0.58$ _y = 1.2_

8. $-0.3y + 0.2 = -0.01$ _y = 0.7_

9. $0.54 = y \times 0.9$ _y = 0.6_

10. $0.34 = 0.9y - 0.2$ _y = 0.6_

11. $9.36 = 9.9 - 0.9y$ _y = 0.6_

12. $0.63 = 0.9y - 0.9$ _y = 1.7_

13. $0.78 = 0.6 - -0.2y$ _y = 0.9_

14. $0.8 + 0.7y = 0.73$ _y = -0.1_

15. $0.1 \times y = 0.08$ _y = 0.8_

16. $y \div -0.2 = -0.3$ _y = 0.06_

17. $0.28 = 0.4 \times y$ _y = 0.7_

18. $0.8 + -0.2y = 0.76$ _y = 0.2_

19. $0.34 = 0.5 + -0.2y$ _y = 0.8_

20. $0.1y + 0.9 = 0.94$ _y = 0.4_

21. $0.56 = 0.7y - 0$ _y = 0.8_

22. $0.01 = 0.1 \times y$ _y = 0.1_

23. $y \div 0.9 = 0$ _y = 0.0_

24. $0.28 = 0.3 + 0.1y$ _y = -0.2_

25. $9.74 = 10.3 - 0.8y$ _y = 0.7_

26. $0.3 = 0.15 \div y$ _y = 0.5_

Name : .... Class : ....

Decimals

What decimal number is illustrated ?

1.

2.

3.

4.

5.

6.

0.5

1.

0.25

2.

0.375

3.

0.166

4.

0.25

5.

0.5

6.
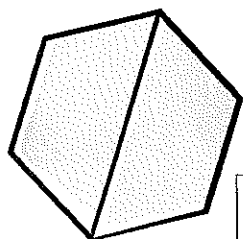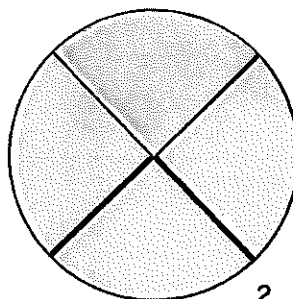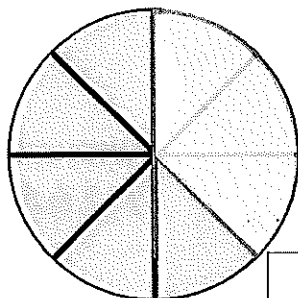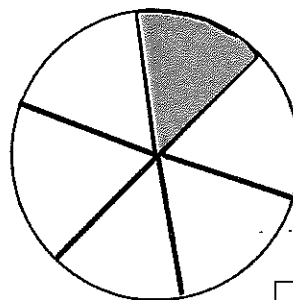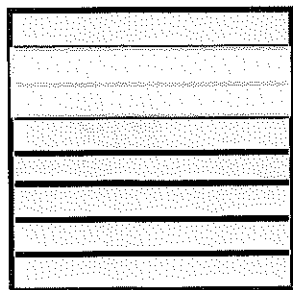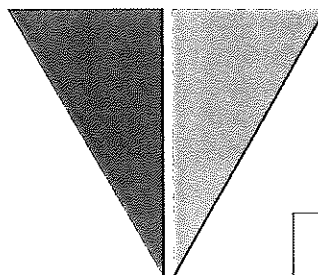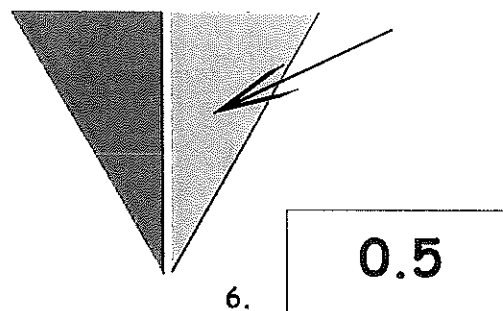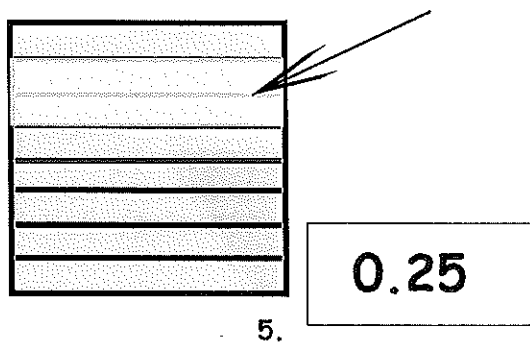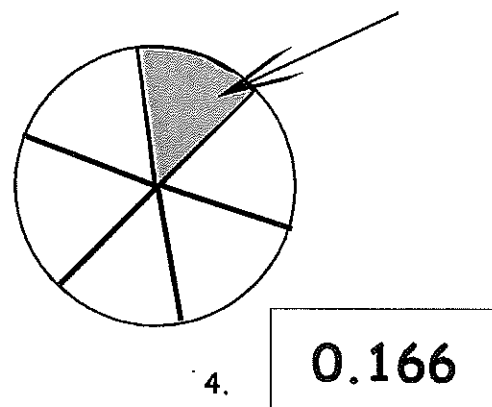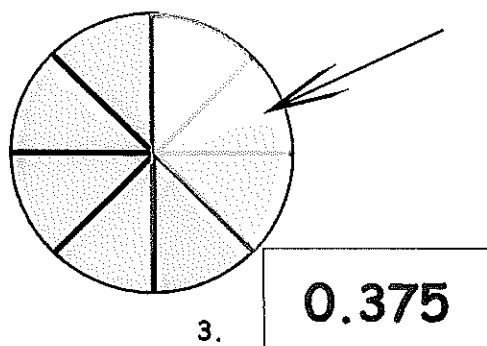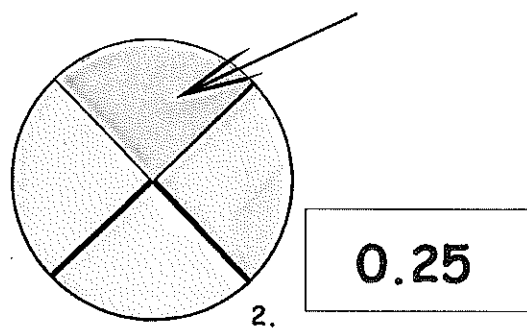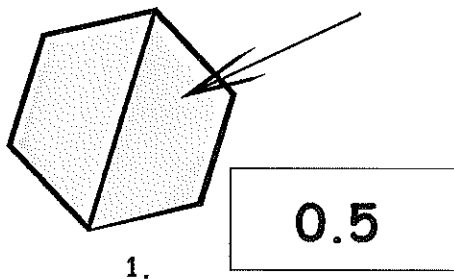
Becoming a Baker

by ReadWorks

A baker's day begins early. So early, in fact, that for many people it would still be considered night. At 4 a.m., the only light typically comes from the stars, and even the birds are still asleep. The prospect of waking at 4 a.m. every day scares off many a would-be baker. But Diana Rodriguez didn't mind. She was in France, and she was doing what she loved. Diana couldn't wait for each day to begin.

On that morning, a cool, clear Tuesday, Diana arrived at the bakery as usual. She unlocked the heavy iron door and stepped in, breathing in the comforting scent of butter and yeast. Then it was the same routine as every other morning: turn on the lights, measure the flour, and mix the bread dough. Carefully adding salt, yeast, and water, Diana began to knead the dough. Over and over, she pushed the dough down into the counter, rolled it over and pushed it again. She had learned to knead bread dough from her grandmother, and she still found the practice soothing. Most bakers have defined biceps from the hours they spend coaxing flour and water into a smooth, elastic dough.

At 4:30 a.m., the head baker arrived. "Bonjour, Pierre," called Diana. "Bonjour," Pierre mumbled sleepily. Pierre was a native of this town, a quiet seaside resort in the south of France. As a local and a baker of many years, Pierre was less excited about getting up at 4 a.m.

Diana had first heard about Pierre's bakery when she was watching television at home in the United States. There was a show that toured the world, highlighting the best foods to be found. Diana had watched the host's face light up when she tasted one of Pierre's buttery croissants. Diana had wanted to make people feel that happy.

For years, she had known that she wanted to be a cook. When all of her friends were looking at colleges, Diana had stared at the websites of culinary schools. She went to the program at the local community college, and there she discovered her gift for baking. Baking was different from cooking. Baking was precise; it required attention. Measure just one of the ingredients wrongly and the entire batch would be ruined. You could be creative in baking, but you had to follow the rules carefully. It was like writing a sonnet.

As part of her program, Diana had to take on an apprenticeship. For six months she needed to work with a master baker, learning skills from him or her. The hours would be long and the work would be

hard, but it would be an invaluable opportunity. All of the best bakers learned through apprenticeships. Diana knew that she wanted to be an apprentice to Pierre.

Now, kneading the bread in the kitchen, Diana was sure she had made the right decision. It had been three months, and already she was a better baker than many of her teachers back home. She had learned the light touch and quick reactions necessary for working with dough. Her biceps were defined from the hours of kneading bread and lifting heavy sacks of flour.

Today was the halfway point of her apprenticeship, and that meant there was a test. Diana didn't know what the test would be like, but she could tell it wouldn't be easy. Pierre was wide awake now, looking at her out of the corner of his eye, judging whether or not she was ready.

"Diana!" he called. "Do you know what today is?"

"Halfway through my apprenticeship," she said.

"That's right," Pierre responded. "Today is the first exam. If you do well, you will move on to more difficult tasks and will receive more responsibility. If not..." He looked at her seriously. "If you do not pass this exam, you will continue your apprenticeship at another bakery."

Diana felt her breath shorten. She felt like she was doing well, but who knew if her work was up to Pierre's standards? She couldn't imagine leaving now, just as she was building a home there. She finally knew some of the customers' names, and she had just mastered the signature *pain au raisin* of the bakery.

Pierre placed a list in front of her. It was the full list of the bakery's supply for the day. "Today you do all of the baking. Alone," he said. Diana felt dizzy-that was several hundred pastries and loaves of bread. Usually, it was Pierre, her, and another apprentice. Well, there was no time to waste.

Diana began to work furiously, mixing together flour, kneading loaves, folding pastry. She began to lose track of how many racks she was putting into the oven and which loaves of bread were ready to be pulled out. She glanced at the clock-7:00 a.m.! The bakery was supposed to open in one hour, and there was no way she could be done.

She picked up her cell phone and dialed the other apprentice. "Marie? Can you come in and help? There's just no way I can do this myself." Marie hurried over to the bakery, and together they managed to get the bakery supply ready on time. But even though the customers were smiling, Diana was holding back tears. She knew that she had been unable to pass the exam and now would be sent elsewhere.

At the end of the day, Pierre arrived. "Diana," he said. "Pierre, I'm so sorry-" she began, but he cut her off. "You have passed the exam!" he said, beaming. Diana put out a hand to brace herself on the counter. Pierre explained: "It's impossible for one person to do all of that work. You passed because providing good bread to the customers was more important to you than your own prestige. That's what makes a good baker."

Diana smiled. She hadn't imagined the test would be so hard, but at least it confirmed what she already knew: she was meant to be a baker.

ReadWorks®

Name: _____ **Date:** _____

1. Where does Diana arrive early on a Tuesday morning?

    A. a bakery

    B. a culinary school

    C. a community college

    D. a seaside resort

2. What problem does Diana face in this story?

    A. Diana is supposed to take on an apprenticeship, but she cannot find a baker who will accept her as an apprentice.

    B. Diana is supposed to learn all of the customers' names, but she can only remember some of them.

    C. Diana is supposed to do all the baking alone, but there is too much for her to do by herself.

    D. Diana is supposed to bake pastries and loaves of bread, but she only knows how to bake loaves of bread.

3. Read these sentences from the text.

That's right,' Pierre responded. 'Today is the first exam. If you do well, you will move on to more difficult tasks and will receive more responsibility. If not...' He looked at her seriously. 'If you do not pass this exam, you will continue your apprenticeship at another bakery.'

Diana felt her breath shorten. She felt like she was doing well, but who knew if her work was up to Pierre's standards? She couldn't imagine leaving now, just as she was building a home there. She finally knew some of the customers' names, and she had just mastered the signature pain au raisin of the bakery.

Based on the evidence in these sentences, how does Diana probably feel about the exam?

    A. Diana probably feels nervous.

    B. Diana probably feels confident.

    C. Diana probably feels eager.

    D. Diana probably feels angry.

4. What conclusion does Diana draw after calling Marie for help?

   A. Diana concludes that she has failed the exam.

   B. Diana concludes that Marie will be sent to another bakery.

   C. Diana concludes that she should go back to the United States.

   D. Diana concludes that she has passed the exam.

5. What is a theme of this story?

   A. If you are not kind to other people, they will not be kind to you.

   B. You should put other people before yourself.

   C. You should always tell the truth, even if it hurts someone's feelings.

   D. If you work hard enough, you can accomplish anything on your own.

6. Read these sentences from the text.

Diana had first heard about Pierre's bakery when she was watching television at home in the United States. There was a show that toured the world, highlighting the best foods to be found. Diana had watched the host's face light up when she tasted one of Pierre's buttery croissants. Diana had wanted to make people feel that happy.

What does the phrase "light up" mean here?

   A. suddenly express happiness

   B. suddenly turn on

   C. slowly start to sweat

   D. slowly change color

7. Read this sentence from the text.

Baking was precise; it required attention.

How could this sentence be rewritten without changing its meaning?

   A. Baking was precise, yet it required attention.

   B. Baking was precise before it required attention.

   C. Baking was precise; however, it required attention.

   D. Baking was precise, and it required attention.

8. What does Diana do when she realizes that she will not be able to get all the baking done by herself before the bakery opens?

_____

_____

_____

9. Cite a quote from Pierre that explains why Diana passed her exam.

_____

_____

_____

10. The word "prestige" means "reputation" or "importance in the eyes of others."

Pierre concludes that providing good bread to the customers is more important to Diana than her own prestige. What evidence in the story supports his conclusion?

_____

_____

_____

Grades 6-8, Prompt for Informative / Explanatory Writing
Common Core Standard W.CCR.2

Great historical events often have deep effects upon the people who live through them. Depending on the person and the situation, those effects can be very different – or not.

The Great Depression of the 1930s, in the United States, was one of these events. Lasting for nearly ten years, the Great Depression closed thousands of banks, put millions of people out of work, and seared itself into the memory of those who lived through it.

The President of the United States, Franklin D. Roosevelt, responded by creating new government programs to help Americans, known as the New Deal.

You are going to read three texts about the Great Depression: a memoir called *Digging In* by Robert Hastings, a poem, "Debts" by Karen Hesse, and a short text about the programs of the New Deal of President Roosevelt. As you read and re-read these texts, think about what the texts show you about how the Great Depression seems to have affected the individual people who lived through it.

Finally, using these texts, you will write an essay, explaining your thinking.

For the essay, your Focusing Question is:

According to these texts, what effect did the Great Depression have on people who lived through it? Be sure to use evidence from the texts to support and develop your thinking.

Remember, a good informative essay:
- *Has a clear introduction*
- *States a focus/topic clearly, precisely, and thoughtfully*
- *Uses specific evidence from the text(s) to support and develop the topic and explains that evidence*
- *Concludes effectively*
- *Uses precise language*
- *Shows control over conventions*

You will have three class periods to complete this reading/thinking/writing task. The essay will have a single draft, and you may want to take some time to plan your writing before you begin work. When you have finished, be sure to proofread.

Digging In

By Robert J. Hastings

The closing of Old West Side Mine meant the end of anything resembling a steady job for the next eight years. From 1930 on, it was a day's work here and a day's work there, a coal order from the welfare office, a few days on WPA, a garden in the back yard, and a few chickens and eggs.

We weathered the storm because of Dad's willingness to take any job and Mom's ability to stretch every available dollar. It was not so much a matter of finding a job as of filling in with odd jobs wherever and whenever you could, and most of the "jobs" were those you made for yourself.

My diary shows that Dad sold iron cords door to door, "worked a day in the hay," bought a horse to break gardens, rented an extra lot for a garden on the shares, picked peaches, raised sweet potato slips, traded an occasional dozen of eggs at the grocery, hung wallpaper, "painted Don Albright's house for $5," picked up a day or two's work at the strip mines, guarded the fence at the county fairgrounds, cut hair for boys in the neighborhood, sold coal orders, and when he had to and could, worked intermittently on WPA.

With no dependable income, we cut back on everything possible. We stopped the evening paper, turned off the city water and cleaned out our well, sold our four-door Model T touring car with the snap-on side curtains and isinglass, stopped ice and milk delivery, and disconnected our gas range for all but the three hot summer months. There was no telephone to disconnect, as we didn't have one to start with!

We did keep up regular payments on two Metropolitan Life Insurance policies. Page after page of old receipt books show entries of 10 cents per week on one policy and 69 cents a month on another. As long as we could, we made house payments to the Marion Building and Loan, but a day came when we had to let those go, too.

Fortunately, we were able to save our house from foreclosure. When so many borrowers defaulted, the Marion Building and Loan went bankrupt. Creditors were allowed to pay just about any amount to satisfy the receivers. But that was the catch — who had "just about any amount" to pay? A house behind ours sold for $25. Many good houses in Marion sold for $5 to $100 and were torn down and moved to nearby towns. We settled with the loan company for $125, or ten cents on the dollar for our $1250 mortgage. I'll never forget the day Dad cleared it all up, making two or three trips to town to bring papers home for Mom to sign. He was able to borrow the $125 from his aunt, Dialtha James, who as the widow of a Spanish-American war veteran had a small pension.

Looking back, I find it amazing what we did without. A partial list would include toothpaste (we used soda), toilet paper (we used the catalog), newspaper or magazine subscriptions, soft drinks, potato chips and snacks, bakery goods except bread and an occasional dozen of doughnuts, paper clips, rubber bands and restaurant meals. We had no water bill, sewer bill, telephone bill, no car expenses – gasoline, tires, batteries, licenses, insurance, repairs – no laundry service, no dry cleaning (we pressed woolens up with a hot iron and wet cloth), no bank service charge (no bank account), no sales or income tax. We sent no greeting cards except maybe half a dozen at Christmas...

Typical of the simple economies Mom practiced was keeping the electric bill to $1 a month and the gas bill to $1 a month in June, July, and August....Since our only appliance was an electric iron, the chief use of electricity was for lighting. With only a single bulb suspended by a cord from the ceiling of each room, there weren't many lights to burn...On winter evenings, Mom would turn on the kitchen light while she cooked supper. If I had lessons I brought them to the kitchen table or sprawled on the floor between the kitchen and dining room.

After supper we "turned off the light in the kitchen" and moved to the dining-sitting room, where another light was switched on. If we wanted to read on winter afternoons, we sat as near a window as possible, with the curtains pinned back, to save the lights until it was nearly dark...

Dad had some old-fashioned shoe lasts, and he would buy stick-'em-on soles at the dime store to patch our shoes in winter. With simple barber tools he cut my hair and that of other kids in the neighborhood, for maybe ten cents a head. In cold, wet weather, when he worked outdoors on WPA, he often cut strips of cardboard to stuff in the soles of his shoes and keep his feet warm.

We took care of what we had. Every cotton cloth was used over as a dish cloth, wash cloth, dust cloth, shoe-shining cloth, window-washing cloth, to scrub and wax floors, make bandages, make quilt pieces, make kite tails, or to tie boxes and papers together. The cotton bags from flour, salt, and cracked chicken feed were washed, bleached, and cut into dish cloths and towels. Some neighbors made curtains or even dresses from feed sacks. Every paper bag was saved for lunches or cut and used for wrapping paper. String was wound into balls for later use.

Each August Mom would find someone who was a year ahead of me in school, and buy his used books. One exception was a spelling book used in all eight grades. Since it was to be used for eight years, we decided it would be a wise investment to buy a new one when I started first grade. In the seventh grade, I dropped that speller in the snow. I thought Mom was unfair when she sent me all the way back to school, retracing my steps to look for the book...

Before the Depression, we hung a four-cornered black-and-white cardboard sign in the front window each morning. The figures in the corners told the iceman how many pounds to bring – 25, 50, 75, or 100. But ice was one of the casualties of the Depression, although we managed a small piece two or three times a week for iced tea. About eleven in the morning I would pull a little wagon, filled with a gunny sack and assorted old quilts and tarpaulins, down to the neighborhood ice house to buy a "nickel's worth of ice," which was half of a 25-pound chunk. By wrapping it carefully and storing it in a cool, damp spot under the house, we could stretch that piece of ice for two or three days. In rainy, cool weather, maybe four days! It was our glistening prize, and any left over from tea was emptied back into a pitcher of ice water, or used for lemonade that afternoon. So as not to waste any, we chipped only what was needed, with much of the same care used by a diamond cutter.

Whatever was free was our recreation. This may have included playing records on our wind-up victrola or listening to the radio. You might watch a parachute jump at the airport or a free ball game at the city park, with perhaps a free band concert afterwards...the band concerts survived only the first two years of the Depression...

We liked music, and one of my earliest memories is of Dad singing to me:

> Two arms that hold me tight,
> Two lips that kiss goodnight;
> To me he'll always be,
> That little boy of mine.
>
> No one can ever know,
> Just what his coming has meant:
> He's something heaven has sent,
> That little boy of mine.

At one point in the Depression, the cupboard was literally bare of money. We weren't hungry, but we were penniless. Then Dad went back in the pantry and came out with a jar in which he had saved a few nickels and dimes for such an emergency.

Later, Mom said to me, "I've learned that whatever happens, your Daddy always has a little dab of money put back somewhere..."

Debts

By Karen Hesse

Daddy is thinking

of taking a loan from Mr. Roosevelt and his men,

to get some new wheat planted

where the winter crop has spindled out and died.

Mr. Roosevelt promises

Daddy won't have to pay a dime

till the crop comes in.

Daddy says,

"I can turn the fields over,

start again.

It's sure to rain soon.

Wheat's sure to grow."

Ma says, "What if it doesn't?"

Daddy takes off his hat,

roughs up his hair,

puts the hat back on.

"Course it'll rain," he says.

Ma says, "Bay,

it hasn't rained enough to grow wheat in

three years."

Daddy looks like a fight brewing.

He takes that red face of his out to the barn,

To keep from feuding with my pregnant ma.

I ask Ma

how, after all this time,

Daddy still believes in rain.

"Well, it rains enough," Ma says,

"now and again,

to keep a person hoping.

But even if it didn't

your daddy would have to believe.

It's coming on spring,

and he's a farmer."

March 1934

The New Deal

In 1932 Franklin Delano Roosevelt was elected overwhelmingly on a campaign promising a New Deal for the American people. Roosevelt worked quickly upon his election to deliver the New Deal, an unprecedented number of reforms addressing the catastrophic effects of the Great Depression. Unlike his predecessor, Herbert Hoover, who felt that the public should support the government and not the other way around, Roosevelt felt it was the federal government's duty to help the American people weather these bad times.

Together with his "brain trust," a group of university scholars and liberal theorists, Roosevelt sought the best course of action for the struggling nation. A desperate Congress gave him carte blanche and rubber-stamped his proposals in order to expedite the reforms. During the first 100 days of his presidency, a never-ending stream of bills was passed, to relieve poverty, reduce unemployment, and speed economic recovery.

His first act as president was to declare a four-day bank holiday, during which time Congress drafted the Emergency Banking Bill of 1933, which stabilized the banking system and restored the public's faith in the banking industry by putting the federal government behind it. Three months later, he signed the Glass-Steagall Act which created the FDIC, federally insuring deposits

The Civil Conservation Corps was one of the New Deal's most successful programs. It addressed the pressing problem of unemployment by sending 3 million single men from age 17 to 23 to the nations' forests to work. Living in camps in the forests, the men dug ditches, built reservoirs and planted trees. The men, all volunteers, were paid $30 a month, with two thirds being sent home. The Works Progress Administration, Roosevelt's major work relief program, would employ more than 8.5 million people to build bridges, roads, public buildings, parks and airports.

The National Industrial Recovery Act (NIRA) and the National Recovery Administration (NRA) were designed to address unemployment by regulating the number of hours worked per week and banning child labor. The Federal Emergency Relief Administration (FERA), created in 1933, gave $3 billion to states for work relief programs. The Agricultural Adjustment Act subsidized farmers for reducing crops and provided loans for farmers facing bankruptcy. The Home Owners' Loan Corporation (HOLC) helped people save their homes from foreclosure.

While they did not end the Depression, the New Deal's experimental programs helped the American people immeasurably by taking care of their basic needs and giving them the dignity of work and hope.

from Public Broadcasting Service www.pbs.org

According to these texts, what effect did the Great Depression have on people who lived through it? Be sure to use evidence from the texts to support and develop your thinking.

Brain Breaks

Name: _____ Date: _____ Class: __
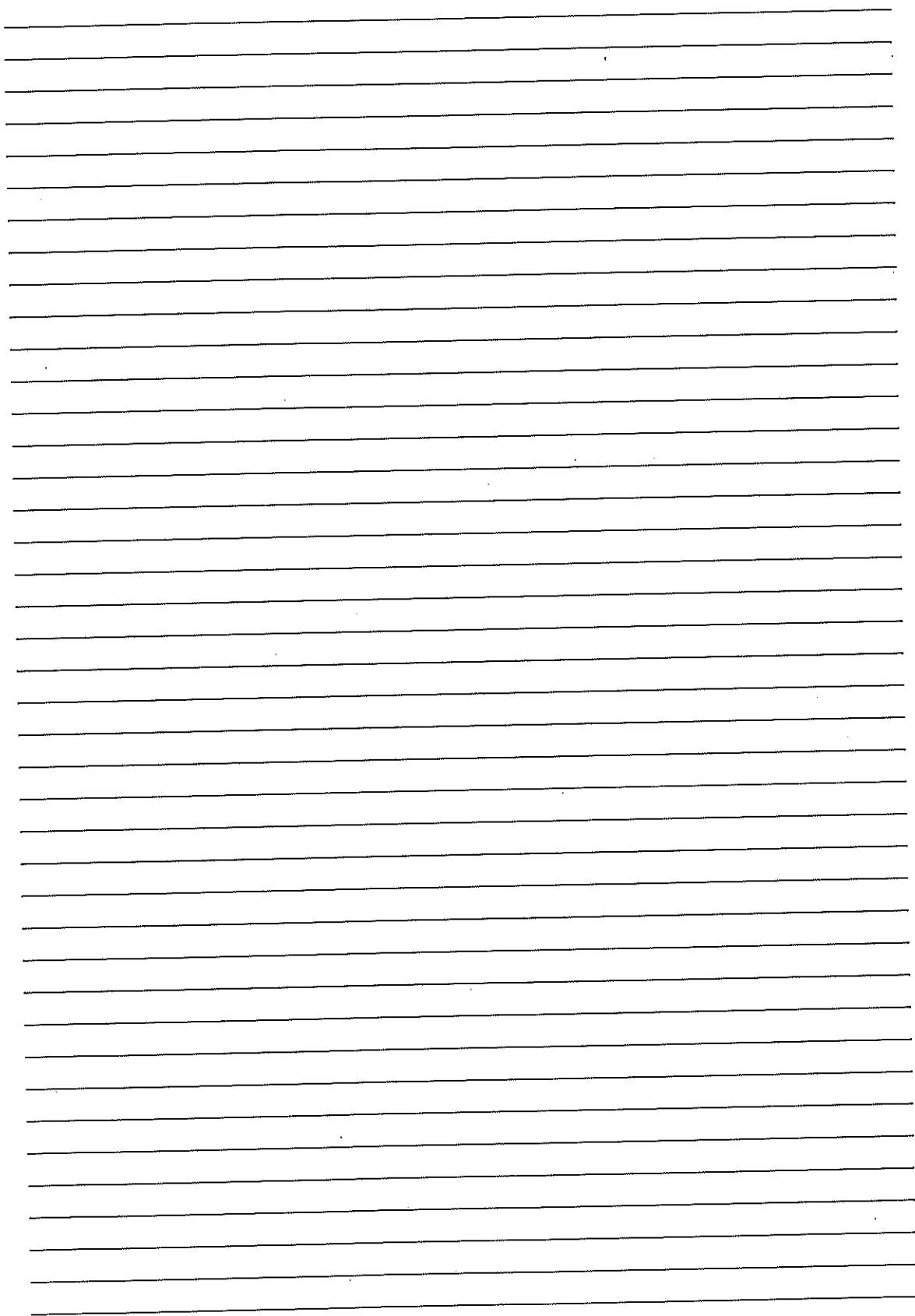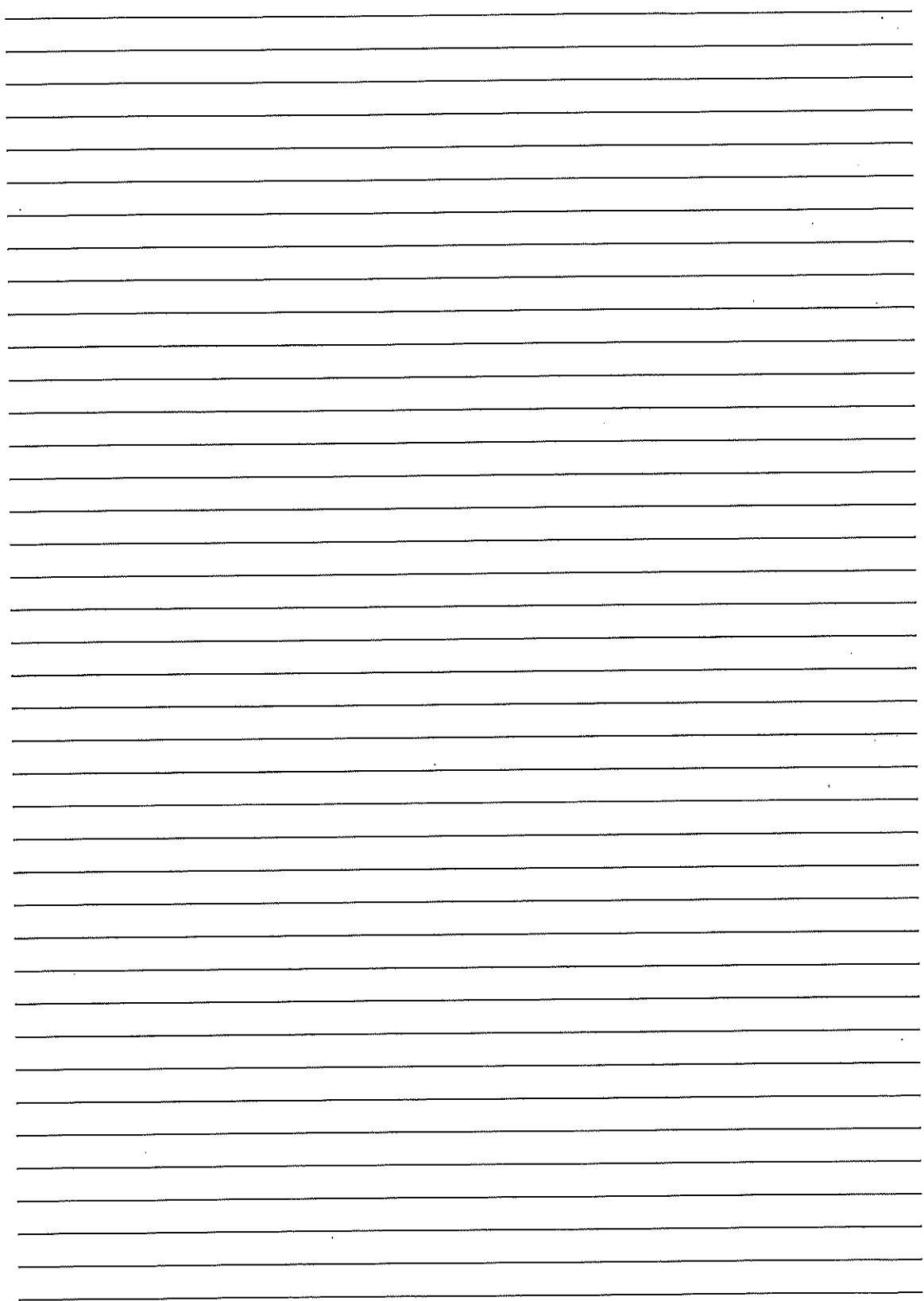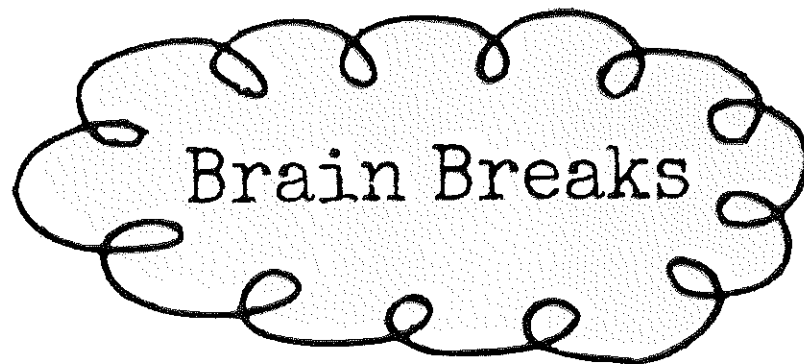
Brain Teasers Worksheet #1

Five girls participated in a race. Maria finished before Sarah, but behind Ella. Marianne finished before Julia, but behind Sarah. In what order did the girls finish the race?

1. _____

2. _____

3. _____

4. _____

5. _____

RIDDLE

Moshe walks across a bridge. He sees a boat full of people, yet there isn't a single person on board. How is this possible?

All the people on the boat are married.

Margaret's Marvelous Magical Milieu is a very popular store in Super City's main shopping mall. However, Margaret is having a lot of troubling managing her employees because the employees are available to work only at certain times. Can you help design a schedule that works for everyone?

The store is open from 9:00 A.M. until 9:00 P.M. At least one person must be working at all times. The busiest times in the store are Fridays through Sundays between 2:00 P.M. and 9:00 P.M. Each employee's shift (the time spent at work on a given day) typically lasts four hours. The employees are all high school or college students and cannot work more than 15 hours per week. There are ten employees: Agnes, Arturo, Cassandra, Edward, Hannah, Luther, Marcus, Megan, Olivia, and Tyrone.

The Tale of Two Apples

Here is a fun poem with a twist. The letters of some words are jumbled up; these words are written in all capital letters. Unscramble these words to read the poem.

He was an apple, and she was an PAPEL,
    And they hung on an old brown ETER.
And a fonder little couple
    I think you never would see.

But alas! This little OLCPUE,
    They could not contented be.
"I should like to travel," she EHDRIWEPS.
    "I wish that we could," said he.

But the summer went by so YLKUQCI,
    And they still hung there on the EERT;
For people can't always travel,
    And apples are apples, you see.

And they sighed and they groaned and grumbled
    At the home that they once loved LELW,
Till there came a great wind through the orchard,
    And down on the ground they LEFL.

"Oh, dear, what a bump!" she whispered.
    "I'm bruised all ROVE," said he.
But if people at home won't tarry,
    They must get a few MUPSB, you see.

Then they found themselves put in a SABTEK.
    "We're off to the world," said she.
"I wish we were back in the ACRRHOD
    "If this is the world," said he.

And then this poor TILTLE couple
    Were put in a dark big pie.
"Oh, love," sighed the wife to her NUDAHBS.
    "I think we are going to die."

And the oven RWGE hotter and hotter,
    And they died with a dream of home.
"Why didn't we stay in the orchard?
    "Oh, why did we want to AMOR?"

Brain Teasers Worksheet #2

An Age Problem

Unravel this riddling question.

When first the marriage knot was tied
    Between my wife and me,
My age was to that of my bride
    As three times three to three.
But now, when ten and half ten years
    We man and wife have been,
Her age to mine exactly bears
    As eight is to sixteen.
Now tell, I pray, from what I've said,
What were our ages when we wed?

_____
_____
_____

What is it that everyone thinks of in telling a riddle, and everyone thinks of when hearing it?

_____
_____
_____

Why is shoe polish like a newspaper editor?

_____
_____
_____

How can a religious person make her or his money go a long way?

_____
_____
_____

What advantage does a postage stamp have over a dog owner?

_____
_____
_____

When is a cigar like dried beef?

_____
_____
_____

In the year 1894, if all of the American presidents would have been able to stand in a row, how far would they have reached?

_____
_____
_____

Unscramble the name of each British prime minister.

HHTTCARE _____

ACEMNOR _____

AELLWPO _____

IISAERLD _____

SGLDAETNO _____

Name _____

Find the Percentage of a Value (Using the Decimal Method) Lesson

Bruce located a belt of asteroids in the direction of his spaceship. The asteroid field contained 846 asteroids. Bruce's navigator, Sheila, determined that 19% of the asteroids could severely damage the ship. How many asteroids are present in the asteroid field that could severely damage the ship? (Use the decimal method for determining the value.)
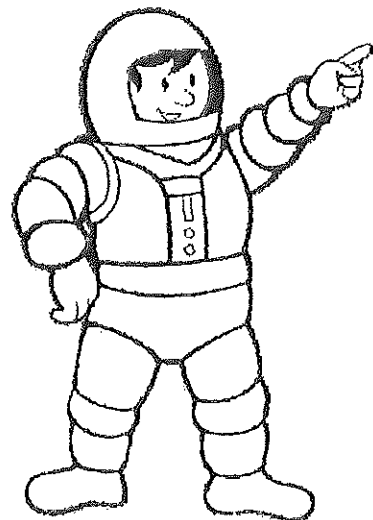
Explanation:

The problem is basically looking for us to find: 19% of 846

We are asked to use the decimal method. This tells us to convert the percentage to a simple decimal and multiply it by the integer in question.

If we consider that 1 = 100%, this would mean that 0.19 = 19%

To complete the problem: 0.19 x 846 = 160.74

160.74 would be rounded up to 161.

161 asteroids could severely damage the spaceship.

Name _____

Determining Percentages with Decimals Worksheet 1

Find the percentage of the following numbers using decimal method.
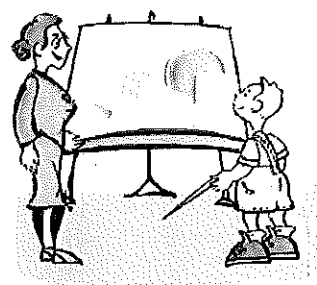
Problems	Workspace
Example: 15% of 40 Answer: 6	15% *of* 40 $= 0.15 \times 40$ $= 6$
18% of 50 Answer: _____	
20% of 55 Answer: _____	
6% of 100 Answer: _____	
8% of 150 Answer: _____	
25% of 80 Answer: _____	

Name _____

Determining Percentages with Decimals Worksheet 2

Find the percentage of the following numbers using decimal method.
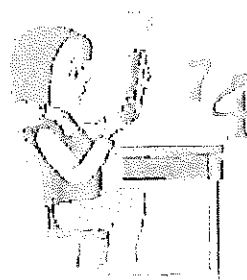
Problems	Workspace
Example: 35% of 180 Answer: 63	35% of 180 $= 0.35 \times 180$ $= 63$
32% of 200 Answer: _____	
30% of 30 Answer: _____	
19% of 300 Answer: _____	
8% of 150 Answer: _____	
20% of 95 Answer: _____	

Interpret and Compute Quotients of Fractions - Step-by-Step Lesson

Lesson 1 Fraction Problem:

1. How many 3/4-cup servings are in 3/2 cups of coffee?
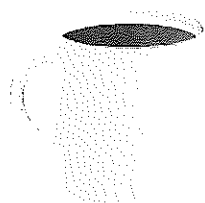
Explanation:

Step 1) First we look to see what is being asked of us.

"How many 3/4-cup servings are in 3/2 cups of coffee?"

Step 2) Divide the total amount of coffee by the number of cups

$$\frac{3}{2} \div \frac{3}{4}$$

Now turn this from a division problem into a multiplication problem by multiplying by the reciprocal.

$$\frac{3}{2} \div \frac{3}{4} = \frac{3}{2} \times \frac{4}{3}$$

Now we will multiply:

$$\frac{3}{2} \times \frac{4}{3} = \frac{3 \times 4}{2 \times 3} = \frac{12}{6} = 2$$

Answer is: 2

Interpret and Compute Quotients of Fractions – Independent Practice Worksheet

Complete all the problems.

1. How many 1/5-cup servings are in 3/4 of a cup of ice cream?

2. On the last period, our teacher had 1/2 of an eraser left. She gave that to her 2 students equally. How much of the eraser did every student take home?

3. Each day, Foster uses 4 bags of milk for tea for her family and tenant. In how much of a day will they use 1/2 of a bag of milk?

4. Simmons made 2/3 of a pound weighed pizza. He distributed the pizza to his 6 friends. What was the weight of pizza that each friend gets?

5. What weight of oranges will each person get if 4 people share 2/4 lb of chocolate equally?

6. How many 1/3-cup servings are in 3/4 of a cup of tea?

7. What weight of flowers will each person get if 3 people share 1/3 lb of flower equally?

8. Diaz uses 2 bags of flour every day for preparing food. How much of the day will 1/3 of a bag of flour last? (in days)

9. Hayes purchased 3/2 of a pound of mangoes and gave them equally to 3 friends. How many pounds of mangoes did Hayes give to each friend?

10. How much rice will each person get if 5 people share 2/4 lb of rice equally?

Name _____

Bicycle Metric Math

Bicycling is a great way to exercise, save fuel, and help the environment.
We can all make the earth a better place by riding bicycles.

Math facts used for this worksheet:
   Time = distance ÷ speed
   1 Kilometer = 1000 meters

Use a calculator to solve the problems below.

1. Jim rides his bike 16 kilometers to school. If Jim's average speed while riding to school is 12 kilometers per hour, how long will it take him to get to school? _____
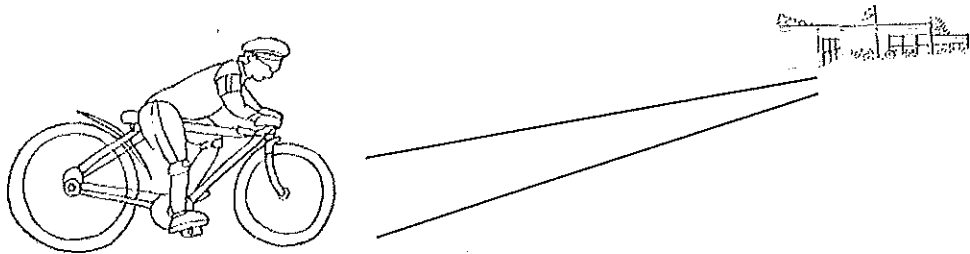
2. Sarah's bike travels 2 meters each time her wheels go around one complete revolution. How many times would Sarah's wheels go around to travel 1 kilometer on her bike? (Hint, there are 1000 meters in a kilometer). _____

3. Each time Jill turns the pedals around one complete turn, her bike travels 2.5 meters. If Jill turned the pedals around 800 times, how many meters would she have traveled? _____

4. There are 1000 meters in 1 kilometer. Using your answer in problem 3, how many kilometers did Jill travel when she turned the pedals on her bike 800 times? _____

5. If Jill's bike travels 4 meters each time she turns the pedals one complete turn, how many times would she have to turn the pedals to travel 3 kilometers? _____

Bicycle Metric Math

Answer key:

1. Time = distance ÷ speed (16 kilometers ÷ 12 kilometers per hour = 1.3 hours)
2. 1000 kilometers ÷ 2 meters = 500 wheel rotations.
3. 800 X 2.5 meters = 2000 meters
4. 2000 ÷ 1000 = 2 kilometers
5. Jill would have turned the pedals 750 times to travel 3 kilometers if her bike traveled 4 meters each time the pedals were turned. This is calculated by first converting 3 kilometers into meters: 1000 meters X 3 = 3000 meters. You then divide 4 meters into 3000 meters to determine the number of times Jill needed to turn the pedals to travel 3 kilometers: 3000 meters ÷ 4 meters = 750 pedal rotations.

Name _____

Planet Cryptogram

Answer each of the clues about planets in our solar system.
Complete the table by writing the corresponding number for each letter in the box beneath each letter.

A	B	C	D	E	F	G	H	I	J	K	L	M
	14		24	25	12	22				7		

N	O	P	Q	R	S	T	U	V	W	X	Y	Z
			4				3		19	15		23

This planet is closest to the sun.

__   E   __   __   U   __   __
21   25   13   16   3   13   17

This planet has thirteen known moons.
One of the moons is Triton.

__   E   __   __   U   __   E
9   25   8   20   3   9   25

This planet is the largest planet in the solar system.

__   U   __   __   __   E   __
1   3   8   2   20   25   13

The temperature on this planet can rise above 1000 degrees.

__   E   __   U   __
6   25   9   3   10

The rings around this planet are made of ice and rock.

__   __   __   U   __   __
10   26   20   3   13   9

The seventh planet from the sun.

U   __   __   __   U   __
3   13   26   9   3   10

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Name _____

The atmosphere of this planet is made up of mostly nitrogen and oxygen.

<u>E</u> __ __ __ __
25   26   13   20   5

The smallest known planet in our solar system.

__ __ <u>U</u> __ __
8   18   3   20   11

The surface of this planet is a red, stony desert.

__ __ __ __
21   26   13   10

Decode this statement.

__ __   __ __ __ __ __ __ __ __ __ __
26   9   26   10   20   13   11   9   11   21   25   13

__ __   __   __ __ __ __ __ __
2   10   26   8   25   13   10   11   9

__ __ __   __ __ __ __ __ __ __   __ __ __
19   5   11   10   20   3   24   2   25   10   20   5   25

__ __ __ __ __   __ __ __   __ __ __ __ __ __ __
10   20   26   13   10   26   9   24   8   18   26   9   25   20   10

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Name _____
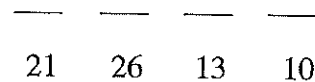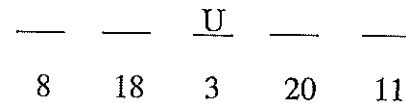
Reduce each improper fraction to its lowest terms.

$\dfrac{17}{8} =$ $\dfrac{25}{9} =$ $\dfrac{12}{9} =$ $\dfrac{18}{10} =$ $\dfrac{7}{3} =$

$\dfrac{14}{6} =$ $\dfrac{14}{4} =$ $\dfrac{20}{7} =$ $\dfrac{9}{5} =$ $\dfrac{11}{6} =$

$\dfrac{9}{7} =$ $\dfrac{5}{3} =$ $\dfrac{11}{4} =$ $\dfrac{9}{8} =$ $\dfrac{15}{11} =$

$\dfrac{15}{10} =$ $\dfrac{19}{10} =$ $\dfrac{13}{8} =$ $\dfrac{8}{3} =$ $\dfrac{9}{6} =$

$\dfrac{3}{2} =$ $\dfrac{23}{5} =$ $\dfrac{25}{8} =$ $\dfrac{19}{7} =$ $\dfrac{20}{9} =$

$\dfrac{23}{12} =$ $\dfrac{19}{14} =$ $\dfrac{15}{4} =$ $\dfrac{17}{12} =$ $\dfrac{18}{5} =$

$\dfrac{20}{13} =$ $\dfrac{13}{4} =$ $\dfrac{15}{7} =$ $\dfrac{10}{7} =$ $\dfrac{14}{11} =$

$\dfrac{18}{13} =$ $\dfrac{15}{9} =$ $\dfrac{14}{5} =$ $\dfrac{9}{4} =$ $\dfrac{20}{8} =$

$\dfrac{11}{9} =$ $\dfrac{17}{5} =$ $\dfrac{18}{7} =$ $\dfrac{21}{11} =$ $\dfrac{20}{6} =$

$\dfrac{13}{6} =$ $\dfrac{12}{7} =$ $\dfrac{11}{5} =$ $\dfrac{16}{7} =$ $\dfrac{8}{7} =$

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Reduce each improper fraction to its lowest terms.

$$\frac{17}{8} = 2\frac{1}{8} \qquad \frac{25}{9} = 2\frac{7}{9} \qquad \frac{12}{9} = 1\frac{1}{3} \qquad \frac{18}{10} = 1\frac{4}{5} \qquad \frac{7}{3} = 2\frac{1}{3}$$

$$\frac{14}{6} = 2\frac{1}{3} \qquad \frac{14}{4} = 3\frac{1}{2} \qquad \frac{20}{7} = 2\frac{6}{7} \qquad \frac{9}{5} = 1\frac{4}{5} \qquad \frac{11}{6} = 1\frac{5}{6}$$

$$\frac{9}{7} = 1\frac{2}{7} \qquad \frac{5}{3} = 1\frac{2}{3} \qquad \frac{11}{4} = 2\frac{3}{4} \qquad \frac{9}{8} = 1\frac{1}{8} \qquad \frac{15}{11} = 1\frac{4}{11}$$

$$\frac{15}{10} = 1\frac{1}{2} \qquad \frac{19}{10} = 1\frac{9}{10} \qquad \frac{13}{8} = 1\frac{5}{8} \qquad \frac{8}{3} = 2\frac{2}{3} \qquad \frac{9}{6} = 1\frac{1}{2}$$

$$\frac{3}{2} = 1\frac{1}{2} \qquad \frac{23}{5} = 4\frac{3}{5} \qquad \frac{25}{8} = 3\frac{1}{8} \qquad \frac{19}{7} = 2\frac{5}{7} \qquad \frac{20}{9} = 2\frac{2}{9}$$

$$\frac{23}{12} = 1\frac{11}{12} \qquad \frac{19}{14} = 1\frac{5}{14} \qquad \frac{15}{4} = 3\frac{3}{4} \qquad \frac{17}{12} = 1\frac{5}{12} \qquad \frac{18}{5} = 3\frac{3}{5}$$

$$\frac{20}{13} = 1\frac{7}{13} \qquad \frac{13}{4} = 3\frac{1}{4} \qquad \frac{15}{7} = 2\frac{1}{7} \qquad \frac{10}{7} = 1\frac{3}{7} \qquad \frac{14}{11} = 1\frac{3}{11}$$

$$\frac{18}{13} = 1\frac{5}{13} \qquad \frac{15}{9} = 1\frac{2}{3} \qquad \frac{14}{5} = 2\frac{4}{5} \qquad \frac{9}{4} = 2\frac{1}{4} \qquad \frac{20}{8} = 2\frac{1}{2}$$

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$$\frac{13}{6} = 2\frac{1}{6} \qquad \frac{12}{7} = 1\frac{5}{7} \qquad \frac{11}{5} = 2\frac{1}{5} \qquad \frac{16}{7} = 2\frac{2}{7} \qquad \frac{8}{7} = 1\frac{1}{7}$$

Name _____

Mars

Mars is named after the Roman god of war. Mars is the fourth planet from the Sun and is about half the size of Earth. It is a dry, dusty, rocky planet where the soil appears reddish brown because it contains iron oxide, or rust. Mars is sometimes called "The Red Planet"

Mars has a very thin atmosphere consisting of carbon dioxide, nitrogen, and argon. The temperature on Mars ranges from -125 to 23 degrees Fahrenheit. It is too cold and the atmosphere is to thin for liquid water to exist on the surface of Mars. Water does exist in the frozen polar ice caps of Mars.

Image courtesy of http://solarsystem.nasa.gov

Of all the planets, Mars has the largest volcanic mountain, Olympus Mons, and the largest known canyon, Valles Marineris, in the solar system. Olympus Mons is three times taller than Mt. Everest and Valles Marineris dwarfs the Grand Canyon.

Mars has two small natural satellites (or moons), Phobos and Deimos. It is thought that these moons may be asteroids captured by Mars' gravity.

Since Mars has an axial tilt similar to that of Earth, it has seasons just like the Earth. Mars orbits the sun once every 1.8807 Earth years. A day on Mars is 24.62 hours, about the same as it is on Earth.

After reading the information above, fold your paper on the line and try to answer the questions below without referring back to the data. (Check the box with the correct answer.)

1. How many natural satellites does Mars have?

   ☐ two   ☐ three   ☐ four

2. Mars has the largest volcanic mountain and the largest known _____?

   ☐ natural satellites   ☐ polar ice caps   ☐ canyon

3. A day on Mars is about as long as a day on _____?

   ☐ Earth   ☐ Mercury   ☐ Venus

4. Why does the soil on Mars appear reddish-brown?

_____

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   ☑ Earth   ☐ Mercury   ☐ Venus

4. Why does the soil on Mars appear reddish brown?

   The soil on Mars appears reddish-brown because it contains rust (iron oxide).

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Inheritance of Traits

by ReadWorks

Everyone has traits: characteristics and qualities that make us who we are. We have physical traits, like brown hair, blue eyes, long legs, freckles and funny-looking toes. We also have personality, or character traits. Those include things like being great at telling jokes, compassion, intelligence, warmth, creativity.

Where do traits come from? It's easy to spot certain physical traits that were passed down genetically from parents to offspring. Traits like red hair and knobby knees are inherited. What's more complex, and, many would argue, more interesting, is to find the source of traits that could have formed from individual reactions to a certain environment. Many traits exist in a gray area between these two extremes-inheritance and development.

One example is body type. This might seem like an easy one. People are genetically predisposed to their body type. But once diet becomes a factor, environment begins to play a major role in how the body develops. So body type is one example of a trait that is a combination of inheritance and interaction with an individual's environment.

So many of our most defining traits have been learned, rather than inherited. For instance, if you're really great at video games, it's not because one or both of your parents passed down skills in some video game mastery gene. It's because you practiced, played a lot of video games, and developed those skills yourself. If you have kids who turn out to be great at video games, it will be because they put in the hours, learned the skills, and memorized the moves necessary to master the video game.

Of course, there are ways our brains can form that are more advantageous to advanced video game playing. Say you were born with an extra-large, extra-powerful section of your brain that commands hand-eye coordination. That's inherited. What you do with it, how you choose to develop that advantage, is up to you.

You can pierce your nose, get a tattoo, dye your hair, shave your head, get your kidneys removed, put on a silly hat-it doesn't matter how much you alter your body during your lifetime. None of those things will translate into genetic material to be passed down to the next generation. Of course, if your children grow up in an environment with role models who are pierced, funny-hatted and covered in tattoos, that is very likely to affect how likely they are to get piercings, tattoos, and funny hats!

Name: _____ Date: _____

1. What are traits?

    A. interactions with an individual's environment

    B. characteristics and qualities that make us who we are

    C. gray areas between two extremes

    D. people with brown hair, blue eyes and long legs

2. How does the author compare inherited traits with learned traits?

    A. by explaining the difference between inherited physical traits like hair color and learned traits like video game skills

    B. by explaining the similarities between inherited traits like hair color and learned traits like video game skills

    C. by explaining the differences and similarities between inherited physical traits and learned traits like video game skills

    D. by explaining that all inherited traits and learned traits are affected by one's environment

3. In the passage, the author writes that people are genetically predisposed to their body type. But once diet becomes a factor, environment begins to play a major role in how the body develops. Based on this evidence, what conclusion can be made?

    A. If one changes one's diet, one can avoid looking like one's parents.

    B. Body type is a trait influenced by both genetics and environment.

    C. People raised in the same environment will all look alike.

    D. Body type is a trait that one cannot control.

4. Video game skills can only be learned, not inherited. What evidence in the text supports this conclusion?

    A. People who are good at video games get this ability from their parents.

    B. People who are good at video games have to practice and memorize moves.

    C. People who are good at video games can only come from certain countries.

    D. People who are good at video games also do well in school.

5. What is this passage mainly about?

    A. how to play video games

    B. different types of traits

    C. why red hair is rare

    D. how environment affects people's inherited traits

6. Read the following sentences: "Of course, there are ways our brains can form that are more **advantageous** to advanced video game playing. Say you were born with an extra-large, extra-powerful section of your brain that commands hand-eye coordination. That's inherited. What you do with it, how you choose to develop that advantage, is up to you."

As used in the passage, what does the word "**advantageous**" mean?

    A. harmful

    B. useful

    C. cheerful

    D. difficult

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

Traits like red hair and knobby knees are inherited. _____, many of our most defining traits, such as the ability to play video games well, have been learned, rather than inherited.

    A. For example

    B. On the other hand

    C. As a result

    D. In conclusion

8. Why is body type used as an example of a trait that is a combination of inheritance and interaction with an individual's environment?

_____

_____

_____

9. Is putting on a silly hat an inherited behavior, a learned behavior, or a combination of the two?

_____

_____

_____

10. A woman who is born with brown hair has chosen to dye her hair blue. Will her future children have blue hair? Why or why not? Use evidence from the text to support your conclusion.

_____

_____

_____

Is the Earth Getting Warmer?
by ReadWorks

In 1975, a scientist named Wallace "Wally" Broecker wrote a paper in which he asked a simple question: was the Earth getting warmer? When the paper was published, some of Broecker's colleagues laughed at him. Many of them believed that the world was actually cooling.

Historically, there have been periods in which the Earth's temperature has slowly risen and cooled over thousands of years. This is a natural process that can be caused by many factors, including changes in radiation from the Sun, changes in the Earth's orbit, and volcanic activity.

However, climate change can also be caused by changes in the amount of certain gases in the atmosphere. Broecker had noticed that the amount of carbon dioxide - a colorless, odorless gas -- was slowly building up. While some carbon dioxide is produced through natural processes, large quantities of it are also produced by humans. Carbon dioxide is generated in especially large amounts when we burn fossil fuels, such as oil, coal, and natural gas. This burning happens when we drive cars, use electricity, and make certain products. When released into the atmosphere, carbon dioxide traps heat. Broecker reasoned that if people produced a lot of carbon dioxide, then enough

heat would be trapped that the Earth would begin to warm. He called this "global warming."

Several decades later, many climate scientists agree with Broecker: the Earth is heating up and humans are largely responsible. This warming process is often referred to as "climate change." More carbon dioxide is being produced than ever before. Every year, humans produce about 8 billion metric tons of carbon. 2012 was the hottest year in recorded history. Recently, scientists estimated that more carbon dioxide exists in the atmosphere than has in over three million years.

While scientists understand how climate change works, some of its effects are still difficult to predict. Some scientists expect an increase in so-called "extreme weather" events, such as hurricanes and floods. Others foresee a rise in levels of sea water. While exactly what changes will happen are unclear, Broecker has warned that people should be prepared for some large disturbances. In an interview with the *Guardian*, a British newspaper, in 2008, he compared the Earth's climate to a wild animal. Sometimes, when provoked, the animal will react violently and unpredictably.

"If you're living with an angry beast, you shouldn't poke it with a sharp stick," he said.

Why are scientists able to understand some phenomena, like climate change, in a general way, but aren't able to predict the changes they will have on the Earth? Part of the reason is because many large Earth systems involve "feedback loops" - processes that help amplify (positive feedback loops) or diminish (negative feedback loops) certain changes.

Feedback loops can occur in the climate system, too. If the temperature of the Earth rises, it can change the environment so that it produces even more heat.

There are a number of different ways in which this phenomenon occurs. Scientists who work in the Arctic, at the northern end of the Earth, have been reporting that, every year, more and more floating sea ice melts. In the last 30 years, more than one-third of the ice that appears in the Arctic during the summer has melted away.

This worries scientists because Arctic ice plays an important role in cooling the Earth - although not in the way you might think. While we add ice to our drinks to make them colder, Arctic sea ice cools the Earth in a different way. Ice, which is white colored, reflects light. This means that much of the sunlight that hits ice bounces off and is sent right back to space. Reflecting light away helps keep the Earth cool.

However, as the Earth heats up, ice begins to melt. As ice melts, this reveals more of the darker-colored land or ocean water, which doesn't reflect heat, but absorbs it. So, less light is reflected back into space, causing the climate's temperature to increase. As the world gets hotter, this causes the ice to melt even faster. This increase in temperature causes still more ice to melt, which causes the world to get hotter, etc... This is an example of a positive feedback loop, in which heat produces more heat.

Similarly, there are other climate systems that can get caught in feedback loops. There are many gases that, like carbon dioxide, contribute to global warming. Some of these gases are trapped in the frozen tundra across Alaska, Canada, Russia, and other northern lands. This soil, whose temperature is below freezing, is called permafrost. When permafrost melts, much of this gas is released into the atmosphere. This causes the atmosphere to warm up, which melts more permafrost, which heats up the atmosphere, etc... Again, a feedback loop ensues, in which a warm climate leads to the creation

of an even warmer climate.

A more complex example of a similar phenomenon involves the Amazon rainforest. When temperatures rise, the rainforest experiences more droughts and wildfires. This causes more trees to burn down. Just as when humans burn fossil fuels, the burning of trees causes large amounts of carbon dioxide to be released into the world. Trees play two important roles in preventing global warming: they help absorb carbon dioxide, which prevents it from trapping heat in the atmosphere, and rainforest trees help pump water into the atmosphere. When trees burn down, less water is pumped into the atmosphere, which leads to less rainfall, which leads to more trees burning - which leads to more carbon dioxide being produced. These are both examples of positive feedback, but feedback can be negative too. When negative feedback occurs, an original effect is diminished.

Both positive and negative feedback loops can occur in all kinds of Earth systems, not just in a system related to the climate. For example, the relationship between different species of animals is a kind of system as well. Periodically, the populations of certain animals will wax and wane. In some cases, the population of a species can become stuck in a negative feedback loop. This can occur if a predator becomes too powerful and its prey becomes too weak. For example, in the early 19 century, humans began hunting a species of bird known as passenger pigeons. Soon, fewer birds existed, which made it more difficult for the species to mate. As mating declined, fewer birds were born, which made it still more difficult for the birds. This created a negative feedback loop in which the population of the birds continued to fall until they are now extinct.

While scientists understand some of how these feedback loops work, they lack a deep knowledge of them, making them extremely unpredictable. This is because, like any complex system, these feedback loops include many variables. Many of these systems are also interdependent, which means that many of these feedback loops affect each other. For example, when permafrost melts, it makes the whole world hotter, not just the area around the permafrost. And these changes are not just limited to temperature. Changes in the amount of rainfall an area receives can lead to changes in its atmosphere. This, in turn, can affect the Earth's temperature, which can affect how much ice melts, which can affect how much rain falls, and so on. So, a small change to a very complex system can lead to very big consequences. This makes predicting the behavior of large systems incredibly difficult.

Some skeptics about climate change point to this uncertainty as a way of casting doubt on whether the world is actually warming. However, being unable to predict the effects of climate change does not mean that it is not happening. Think back to Broecker's analogy. If you poke a wild animal with a sharp stick, you may not be able to guess exactly how it will react. However, even if you don't know precisely what the animal will do - it may bite you or scratch you or just growl - it's still a very bad idea to provoke it.

Scientists continue to debate exactly what happens as the Earth's temperature rises. Among the most popular ideas are that dry areas will become increasingly dry, while wet areas will become increasingly wet; oceans, seas, and lakes will rise; and glaciers, ice caps and snow-covered areas will become smaller. However, many climate scientists agree that a potential way of reducing the effects of climate change is to cut down the amount of carbon dioxide in the atmosphere.

Name: _____ **Date:** _____

1. According to the passage, which gas is generated in especially large amounts when we burn fossil fuels?

    A. carbon dioxide

    B. methane

    C. carbon monoxide

    D. sulfur dioxide

2. The increase of carbon dioxide in the atmosphere has had which effect on the Earth's climate?

    A. Average rainfall has decreased.

    B. Extreme weather has become less common.

    C. The Earth's temperatures are rising.

    D. The Earth's temperatures are falling.

3. Arctic ice plays an important role in cooling the Earth. Which evidence from the passage best supports this statement?

    A. In the last 30 years, more than one-third of the ice that appears in the Arctic during the summer has melted away.

    B. Arctic ice reflects the Sun's light.

    C. When Arctic ice melts, it reveals more of the darker-colored land or ocean water.

    D. Darker-colored land absorbs the Sun's light, causing the climate's temperature to increase.

4. Some of the gases that contribute to global warming are trapped in permafrost. When permafrost melts, many of these gases are released into the atmosphere. This leads to an increase of the atmosphere's temperature, which causes more permafrost to melt.

What type of feedback loop is this an example of?

    A. negative feedback loop

    B. complex feedback loop

    C. both a positive and negative feedback loop

    D. positive feedback loop

5. What is the main idea of this passage?

   A. Climate change is a complex and unpredictable process involving feedback loops.

   B. Disagreements about climate change have prevented scientists from finding real solutions to global warming.

   C. Wallace Broecker's theory may have been incorrect, but he presented some worthwhile ideas.

   D. Climate change can be completely reversed if carbon dioxide production is changed.

6. Read the following sentences: "Some scientists expect an increase in so-called 'extreme weather' events, such as hurricane and floods. Others **foresee** a rise in levels of sea water."

Which word could best replace "**foresee**" as used in this sentence?

   A. forecast

   B. glimpse

   C. pretend

   D. discover

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

Trees play important roles in preventing global warming, _____ absorbing carbon dioxide and pumping water into the atmosphere.

   A. thus

   B. finally

   C. as a result

   D. including

8. How does carbon dioxide increase the Earth's temperature?

_____

_____

_____

9. What is a feedback loop?

_____

_____

_____

10. How can heat produce more heat? Use information from the passage to support your answer.

_____

_____

_____

Name _____   Date _____

Comparing Exponents

Compare the values using the symbols >, <, or =.

1. 10^6 _____ 10^{13} 13. 5^7 _____ 5^{10}

2. 2^{12} _____ 6^{18} 14. 158^1 _____ 11^{14}

3. 740^2 _____ 9^3 15. 2^4 _____ 7^2

4. 35^2 _____ 32^2 16. 5^6 _____ 5^5

5. 22^{12} _____ 39^{12} 17. 9^2 _____ 81^1

6. 12^4 _____ 7^4 18. 30^9 _____ 32^9

7. 5^3 _____ 130^1 19. 12^8 _____ 3^6

8. 11^6 _____ 2^5 20. 5^3 _____ 10^2

9. 5^8 _____ 8^{13} 21. 10^8 _____ 9^8

10. 6^{12} _____ 22^{11} 22. 10^{10} _____ 11^{12}

11. 501^1 _____ 8^3 23. 4^9 _____ 35^1

12. 104^8 _____ 10^9 24. 7^2 _____ 49^1

© **This math worksheet is from www.teach-nology.com**

Name _____   Date _____

Function Tables

Complete each function table.

1. Rule : y = x - 50

Input	x	50	55	72	56	90	104
Output	y						

2. Rule : u = 50 ÷ e

Input	e	5	2	1	25	50	15
Output	u						

3. Rule : x = m ÷ 9

Input	m	0	9	18	27	36	90
Output	x						

4. Rule : f = d + 18

Input	d	8	10	27	55	88	90
Output	f						

5. Rule : x = 8z

Input	z	9	18	3	5	10	25
Output	x						

6. Rule : j = v + 4

Input	V	3	17	18	21	35	61
Output	j						

Order of Operations

Find the solution to each problem.

1. $20 + 5 - 5 \times 5$

2. $8 - 2 + 4$

3. $8 \times 4 - 2$

4. $3 + 6 - 6$

5. $56 \div 8 + 4$

6. $2 - 1 + 22 \div 2 - 1$

7. $25 - 25 + 44 - 4$

8. $66 \div (9 - 3) + 33 - 20 \div 10$

9. $3 \times 12 + 14 - 30$

10. $63 \div 7 + 5 + 35 \div 5 - 2$

11. $78 \div 13 + 12$

12. $50 + 30 - 30$

Name _____   Date _____

Order of Operations

Find the solution to each problem.

1. $20 + 5 - 5 \times 5$

2. $8 - 2 + 4$

3. $8 \times 4 - 2$

4. $3 + 6 - 6$

5. $56 \div 8 + 4$

6. $2 - 1 + 22 \div 2 - 1$

7. $25 - 25 + 44 - 4$

8. $66 \div (9 - 3) + 33 - 20 \div 10$

9. $3 \times 12 + 14 - 30$

10. $63 \div 7 + 5 + 35 \div 5 - 2$

11. $78 \div 13 + 12$

12. $50 + 30 - 30$

Today you will analyze passages from two novels. As you read these texts, you will gather information and answer questions about the characters and points of view so you can write an analytical essay.

Read the passage from the novel *Confetti Girl*. Then answer questions 1 and 2.

from *Confetti Girl*

by Diana López

1 Mom always had after-school projects waiting for me. "Can you help decorate cookies?" she'd say. Or, "Go outside and pick some flowers." Or, "Fix my nails, please." She loved to paint them, but since she wasn't coordinated with her left hand, her right-hand nails looked like a preschooler's coloring page.

2 I guess these projects were chores, but they were fun, too. Now when I come home, I've got to sweep, fold towels, or scrub the bathroom sink. Dad helps, but sometimes he makes a big mess.

3 Like today. He's got flour, potato skins, and crumpled napkins on the counter. The pot boils over with brown scum. And I don't want to talk to him because I'm still mad about the volleyball game, but I have to know what he's up to.

4 "What are you doing, Dad?"

5 "Making dinner. Thought I'd give you a break."

6 Except for game nights, dinner's my responsibility. I cook while Dad cleans— that's our rule. And even though I don't cook as well as Mom did, Dad never complains.

7 "What are you going to make?" I ask.

8 "*Carne guisada* and *papas fritas*."

9 "You need a recipe for that?"

10 "Are you kidding? I need a recipe for peanut butter sandwiches."

11 How mad can a girl be at a man who makes fun of himself and wears a green frog apron that says KISS THE COOK and tube socks over his hands for potholders?

GO ON ▶

12 We clear space on the table. Dinner's served. The beef's tough and the *papas* are mushy, but who cares? I pretend it's delicious because my dad lets me blabber about the Halloween carnival. He laughs out loud when I describe Vanessa's potato baby and Ms. Cantu's creative cascarones,[1] so I don't complain when I notice he served ranch-style beans straight from the can instead of heating them up first.

13 Everything's great until he asks about my English class.

14 "Any new vocabulary words?" he wants to know.

15 "I guess. Maybe. Super . . . super . . . super something. Can't remember."

16 "Was it *supersede*?" he asks. "*Supercilious*? *Superfluous*?"

17 "I don't remember, Dad. It could have been *super-duper* or *super-loop* for all I care."

18 He gets sarcasm from his students all the time so he's good at ignoring it.

19 "Remember that *super* is a prefix that means 'above and beyond,'" he says. "So no matter what the word is, you can get its meaning if you take it apart."

20 "Okay, Dad. I get it. So did I tell you we're having a book sale for our next fundraiser?"

21 "What else are you doing in English?" he asks. "Reading any novels?"

22 I sigh, bored, but he doesn't get the hint. He just waits for my answer. "Yes," I finally say. "I don't remember the title, but it's got a rabbit on the cover."

23 "Is it *Watership Down*? It's got to be *Watership Down*."

24 "Yes, that's it. But I left it in my locker. I guess I can't do my homework."

25 "Nonsense. I've got a copy somewhere. Let me look."

26 He leaves the table to scan the bookshelves, and all of the sudden, I *care* about the tough beef, the mushy potatoes, and the cold beans. Why should I eat when my own father has abandoned his food? Nothing's more important than his books and vocabulary words. He might *say* I matter, but when he goes on a scavenger hunt for a book, I realize that I really don't.

27 I take my plate to the kitchen, grab my half-finished soda, and head to my room. When I walk past him, he's kneeling to search the lower shelves. He's got a paper towel and wipes it lovingly over the titles as if polishing a sports car. He doesn't hear my angry, stomping footsteps. I catch the last part of his sentence.

[1]cascarones—hollow eggs filled with confetti or toys

GO ON ▶

28 ". . . a classic epic journey," he says as if he were in class with a bunch of students. I can't stand it. I just can't stand it. I'd rather have Vanessa's crazy mom.

29 Later, just as I write *I love Luís* for the three-hundredth time, my dad peeks through my bedroom door.

30 "Found my copy of *Watership Down*," he says, handing me a paperback whose spine's been taped a dozen times. "How far do you have to read tonight?"

31 "The first four chapters," I say.

32 "That's a lot. You better get busy."

33 "Sure, Dad. I'll start reading right away."

34 But I don't. As soon as he leaves, I put the book on my nightstand and use it as a coaster. The condensation from my soda makes a big, wet circle on the cover.

GO ON ▶

1. Part A

What is the meaning of the word **sarcasm** as it is used in paragraph 18 of the passage from *Confetti Girl*?

A. a remark indicating mockery and annoyance

B. a response that is meant to be taken literally

C. an answer that indicates confusion or skepticism

D. an observation that is silly and childish

Part B

Which quotation from the passage helps clarify the meaning of **sarcasm**?

A. "'Super . . . super . . . super something. Can't remember.'" (paragraph 15)

B. "'It could have been *super-duper* or *super-loop* for all I care.'" (paragraph 17)

C. "'So did I tell you we're having a book sale for our next fundraiser?'" (paragraph 20)

D. "'Yes, that's it. But I left it in my locker. I guess I can't do my homework.'" (paragraph 24)

GO ON ▶

2. **Part A**

What attitude does the narrator of *Confetti Girl* reveal when she uses the book as a coaster in paragraph 34?

A. worry about being able to finish her schoolwork

B. dishonesty in lying to her father about her homework

C. carelessness when it comes to doing household chores

D. resentment of her father's efforts to impose his interests on her

Part B

Which quotation from the passage **best** shows additional evidence of the attitude in Part A?

A. "Dad helps, but sometimes he makes a big mess." (paragraph 2)

B. "And I don't want to talk to him because I'm still mad about the volleyball game . . . ." (paragraph 3)

C. "Nothing's more important than his books and vocabulary words. He might *say* I matter, but when he goes on a scavenger hunt for a book, I realize that I really don't." (paragraph 26)

D. "Later, just as I write *I love Luís* for the three-hundredth time, my dad peeks through my bedroom door." (paragraph 29)

GO ON ▶

GO ON TO NEXT PAGE

Read the passage from *Tortilla Sun*. Then answer questions 3 and 4.

from *Tortilla Sun*

by Jennifer Cervantes

1 *Clang cla-clang, clang clang.* The next morning, I found Mom in the kitchen with a chisel and hammer, chipping away at the kitchen counter. Little flecks of white flew through the air like ceramic snow, landing softly on her olive-colored cheeks.

2 I ducked as a piece of tile flew at me. "Hey!"

3 She turned toward me with a look of surprise. "Morning, Izzy. I didn't see you standing there."

4 "Wha . . . what are you doing?" I asked.

5 She stepped back and surveyed the half-demolished counter the way someone stands back to study a newly hung photograph. Wiping her cheek with the back of her hand she said, "There was this"—she searched the mess on the floor—"this one broken tile poking out and I thought I should fix it and . . ."

6 I pushed past her to get the broom but she grabbed me by the elbow. A feeling of nervousness swelled inside me.

7 "Izzy, wait. I have something to tell you."

8 There it was. My heart buckled in my chest. Something was wrong.

9 Mom leaned back against the counter and sucked in a great gulp of air. "It's strange actually. I wasn't expecting it, but then at the last minute the funding came through." She folded her arms across her waist. "I'm going to Costa Rica to finish my research."

10 Her words buzzed around me like a swarm of confused bees. "When? For how long?"

11 "I'll be gone for most of the summer. I leave Tuesday."

12 Mom wouldn't leave me. We'd go together. Right? "But that's only three days away." I stepped away from Mom and the shards of tile.

13 "I don't have a choice."

14 "But what am I supposed to do? That's three whole months."

GO ON ▶

15 "Two. I'll be home at the end of July. And after this I can finally graduate. Our lives will change then." She reached over and stroked my hair. "For the better."

16 I rolled those three words around in my mind: *for the better*.

17 Suddenly last night's phone call made perfect sense. I inched closer and pushed at the broken tile with my toes.

18 "Are you sending me to Nana's?" I asked. "In New Mexico?"

19 A flash of surprise crossed Mom's face. Like she knew I had heard her phone conversation. "She's so excited to have you and . . ."

20 "What happened to all your talk about you guys not seeing eye to eye?" I asked.

21 "It's not that we don't see eye to eye. We just don't see the world the same way."

22 "Why can't I go with you?" I said.

23 "Izzy . . ."

24 "New Mexico is worlds away from California. And what am I going to do for two whole months with someone I haven't seen since I was six? That was half my life ago. She's a stranger!" I felt a sudden urge to bolt for the front door and run.

25 Mom rolled her eyes. "Oh, Izzy. She's hardly a stranger. She's family. I already have your ticket. You leave Monday." Mom opened the refrigerator and took out a diet soda, pressing the cold can against her face before opening it.

26 I stared at the mess on the floor. "Why can't I stay here? Alone." My voice quivered.

27 Mom took a swig of her soda, then closed her eyes and took a deep breath. When she opened them, she spoke slowly and deliberately.

28 "You're going to New Mexico and that's final."

29 I swallowed hard and tried not to cry. "Why do you always get to decide everything? We just unpacked and I—I had plans."

30 She raised her eyebrows, surprised. "Plans?"

31 Mom was always bugging me to make friends, which I didn't see the point of, considering we moved every few months. And we moved for all sorts of reasons: closer to the university for her, better school for me, quieter, prettier, bigger, smaller.

GO ON ▶

32 "I was going to try and find some girls my age here in the complex so I wouldn't have to be the new kid in school *again*," I said, trying to sound believable.

33 "Honey, you can make friends at your new school in the fall. Besides, this is a wonderful opportunity for you."

34 "Opportunity? For me? Or for you?"

35 I stormed off to my room and threw myself onto my bed. I ached inside. Like the feeling you get watching a lost balloon float far into the sky until it becomes an invisible nothing.

36 I reached for a story card and scribbled:

37 ***Gypsy was sent to prison for stealing the magic ball. And when she was tossed into the dungeon below the castle she found the word "opportunity" written across the stone wall.***

38 Staring at the card, I wondered what should happen next. Maybe a daring escape or a sorceress could rescue her. When nothing came to me, I scratched out the word *opportunity* until it was a big blob of blue ink and tossed the card on the floor.

39 I heard Mom's footsteps coming toward my closed bedroom door. I held my breath, hoping she wouldn't knock.

40 *Tap. Tap.*

41 Silence.

42 "Izzy?" she spoke quietly.

43 My hands wandered beneath my pillow and gripped the baseball I had hidden there. I squeezed my eyes closed and whispered, "I wish I didn't have to go. I wish I didn't have to go."

44 "I've brought your suitcase." She stood outside my door for what seemed like forever. I pictured her on the other side, arms crossed, head down.

45 "I think you're going to like the village." Her voice became a little muffled now, like her mouth was pressed right up against the door. "It's strange and beautiful at the same time and a perfect place to explore. You just might be surprised what you find there." She paused for a moment then continued. "Would you please talk to me?"

46 I burrowed my head under the pillow with the baseball. A tiny piece of me felt guilty for stealing it, but it belonged to my dad and that made it special. That made it a part of me.

12

GO ON ▶

47 "I'll just leave the suitcase here for you," she said. Her bare feet slapped against the tile and carried her away.

GO ON ▶

3. **Part A**

How do the phrases **stormed off**, **float far**, and **invisible nothing** in paragraph 35 contribute to the tone of the passage?

A. They call attention to the narrator's feelings of guilt and disappointment.

B. They emphasize the narrator's growing sense of hopelessness.

C. They reflect the narrator's escape into comforting daydreams.

D. They highlight the narrator's strong sense of independence.

Part B

Which paragraph **most** directly reinforces the tone created in paragraph 35?

A. paragraph 32

B. paragraph 37

C. paragraph 38

D. paragraph 39

GO ON ▶

4. **Part A**

Which statement provides an objective summary of the passage?

A. A mother chooses to neglect her daughter's interests in favor of completing her degree. She informs her daughter of this decision, and the daughter rightly points out the mother's selfishness.

B. A mother decides it would be best for her daughter if they both moved to another country. The daughter complains that this will disrupt her life, but the mother holds firm to her decision.

C. A girl learns that she and her mother are moving in with their grandmother. The girl believes her mother is trying to take the easy way out. In response, the girl states that her father is a better parent.

D. A girl finds out her mother is going to leave her for the summer. She believes her mother is being selfish. In response, she becomes negative and withdrawn.

Part B

Select the **three** paragraphs that are **most** relevant to providing an objective summary of the passage.

A. paragraph 1

B. paragraph 5

C. paragraph 9

D. paragraph 17

E. paragraph 28

F. paragraph 34

G. paragraph 45

15

GO ON ▶

Refer to the passages from *Confetti Girl* and *Tortilla Sun*. Then answer questions 5 through 7.

5. Part A

In both passages, what causes the conflict between the narrator and her parent?

A. The narrator does something to disappoint her parent.

B. The narrator misunderstands her parent's intentions.

C. The parent acts in a way that neglects the narrator's interests.

D. The parent makes a mess that the narrator will have to clean up.

Part B

Which paragraphs from the two passages **best** support the answer to Part A?

A. paragraph 3, *Confetti Girl*; paragraph 1, *Tortilla Sun*

B. paragraph 12, *Confetti Girl*; paragraph 5, *Tortilla Sun*

C. paragraph 19, *Confetti Girl*; paragraph 6, *Tortilla Sun*

D. paragraph 26, *Confetti Girl*; paragraph 9, *Tortilla Sun*

GO ON ▶

6. Part A

The passage from *Confetti Girl* begins with the narrator's memories of her mother (paragraph 1). The passage from *Tortilla Sun* ends with Izzy's thoughts about the baseball that belonged to her father (paragraph 46). How do these paragraphs contribute to an understanding of both narrators?

A. The paragraphs reveal that the narrators have little reason to feel upset about their present situations.

B. The paragraphs suggest the efforts the narrators will go to so that they may please their parents.

C. The paragraphs emphasize the fact that the narrators may not be reporting events truthfully.

D. The paragraphs highlight the narrators' strong desire to regain a sense of closeness.

Part B

What additional similarity between the narrators builds on the same idea?

A. They both have trouble connecting with their remaining parent.

B. They both have an active and rich imaginary life.

C. They both feel as if there is no point in making friends.

D. They both have parents who value education above all else.

GO ON ▶

7. In the passages from *Confetti Girl* and *Tortilla Sun*, the narrators have points of view different from those of their parents. Write an essay analyzing how these differences in points of view create tension in both stories. Remember to use details from both texts to support your ideas.

GO ON TO NEXT PAGE

GO ON ▶

Read the passage from "Emerald Ash Borer." Then answer questions 8 through 11.

from "Emerald Ash Borer"

by Department of Energy and Environmental Protection

1 The emerald ash borer is a small, green beetle that belongs to a large family of beetles known as the buprestids, or metallic wood boring beetles. The description is apt, as many of the adult buprestids are indeed glossy, appearing as if their wing covers are made of polished metal. The emerald ash borer, with its green, iridescent wing covers, fits right in. Adult EABs are between 0.3 to 0.55 inches in length—small by most standards but large compared to other buprestids—and relatively slender.

2 During its life cycle, EAB undergoes a complete metamorphosis. It starts as an egg, becomes a larva (alternatively called a grub), and then changes to become a pupa and then an adult. The life cycle of an EAB takes either 1 or 2 years to complete. Adults begin emerging from within ash trees around the middle of June, with emergence continuing for about 5 weeks. The female starts laying her eggs on the bark of ash trees about 2 weeks after emergence. After 7 to 10 days, the eggs hatch and the larvae move into the bark, to begin feeding on the phloem (inner bark) and cambium of the tree. Throughout each of its successive instars (larval growth stages), the larva continues to feed within this same part of the tree. The larval stage may last for nearly two years. Before becoming an adult, the insect overwinters as a pre-pupal larva. It then pupates in the spring and emerges as an adult during the summer.

3 EAB feeds strictly on ash trees. The larvae feed on the phloem and cambium, while the adults feed on leaves. In Connecticut, there are three species of ash trees—the white ash (*Fraxinus americana*), the green or red ash (*F. pennsylvanica*) and the black ash (*F. nigra*). Despite its common name, mountain ash (*Sorbus* spp.) is not a true ash and does not attract the EAB.

4 Two other buprestids are well-known to those in Connecticut who are concerned about trees. The bronze birch borer is a pest of ornamental birch trees. The two-lined chestnut borer often attacks stressed oak trees, including oaks in the forest.

Why is EAB a Problem?

5 EAB is an insect that is not native to North America. It was first found in 2002 in the vicinity of Detroit, MI, and Windsor, ON. It had arrived sometime within

GO ON ▶

the several years previous, presumably on woody packaging materials. It is now known to be found in 12 states. It is considered to be established in several of the upper Midwest states where it was first found. Movement of ash, in particular ash nursery stock and ash wood in the form of firewood, logs and wood packaging materials, has been cited as a likely means by which EAB has been assisted in its spread. More recently, strict regulations have been initiated to prevent the movement of these materials from infested areas.

from Emerald Ash Borer by Department of Energy and Environmental Protection—Public Domain

GO ON ▶

8. **Part A**

How does the author organize the information about the emerald ash borer?

A. by providing general facts followed by a statement of a problem

B. by defining the problem in scientific terms followed by an argument for proposed action

C. by presenting a problem followed by a suggested solution

D. by listing facts in order of importance followed by causes of a problem

Part B

How does paragraph 3 contribute to the organizational pattern of the passage?

A. by showing why some facts about EABs are of greater significance than others

B. by explaining what course of action should be taken to prevent borer infestations

C. by providing the scientific names of various species of borer insects

D. by contrasting the food sources of the mature and immature EABs

GO ON ▶

9. **Part A**

What is one reason why the author includes the explanation about the EAB in paragraph 5?

A. to help the reader understand the types of damage the EAB causes

B. to help the reader understand why the EAB issue did not exist in the previous century

C. to help the reader understand how the EAB exists in ash trees

D. to help the reader understand where the EAB will mostly likely travel next

Part B

Which detail from paragraph 5 **best** supports the answer to Part A?

A. ". . . not native to North America."

B. ". . . known to be found in 12 states."

C. ". . . in particular ash nursery stock and ash wood . . ."

D. ". . . movement of these materials from infested areas."

GO ON ▶

10. Part A

What is the meaning of **established** as it is used in paragraph 5 of the passage?

A. in a strong position permitting growth

B. proven beyond a doubt

C. well known and respected

D. accepted as a rule or law

Part B

Which phrase from paragraph 5 helps the reader understand the meaning of **established**?

A. ". . . not native . . ."

B. ". . . first found . . ."

C. ". . . several years previous . . ."

D. ". . . found in 12 states."
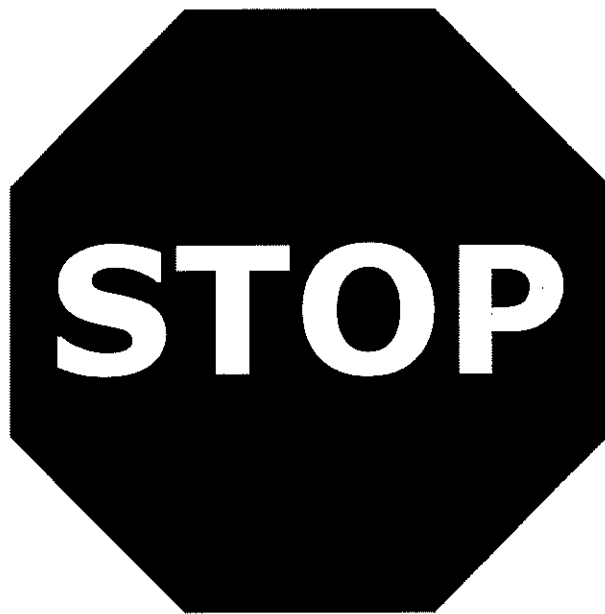
GO ON ▶

You have come to the end of Unit 1 of the test.

- **Review your answers from Unit 1 only.**
- **Then, close your test booklet and answer document and raise your hand to turn in your test materials.**

Unit 2

Directions:

Today, you will take Unit 2 of the Grade 8 English Language Arts/Literacy Practice Test.

Read each passage and question. Then, follow the directions to answer each question. Mark your answers by completely filling in the circles in your answer document. Do not make any pencil marks outside of the circles. If you need to change an answer, be sure to erase your first answer completely.

One of the questions will ask you to write a response. Write your response in the space provided in your answer document. Be sure to keep your response within the provided space. Only responses written within the provided space will be scored.

If you do not know the answer to a question, you may go on to the next question. If you finish early, you may review your answers and any questions you did not answer in this unit ONLY. Do not go past the stop sign.

GO ON ▶

Today you will read about three texts involving elephants. First you will read an article about an experiment. Then you will read a passage from the actual study of the experiment. Finally you will read about a different study of elephant behavior. As you review these sources, you will gather information and answer questions about the purposes and points of view of the authors and researchers. Then you will write an analytical essay.

Read the article "Elephants Can Lend a Helping Trunk." Then answer questions 12 through 14.

Elephants Can Lend a Helping Trunk

by Virginia Morell

1 Elephants know when they need a helping hand—or rather, trunk. That's the conclusion of a new study that tested the cooperative skills of Asian elephants (*Elephas maximus*) in Thailand and showed that the pachyderms understand that they will fail at a task without a partner's assistance. The ability to recognize that you sometimes need a little help from your friends is a sign of higher social cognition, psychologists say, and is rarely found in other species. Elephants now join an elite club of social cooperators: chimpanzees, hyenas, rooks, and humans.

2 To test the elephants' cooperation skills, a team of scientists modified a classic experiment first administered to chimpanzees in the 1930s, which requires two animals work together to earn a treat. If they don't cooperate, neither gets the reward. For the elephants, the researchers used a sliding table with a single rope threaded around it. Two bowls of corn were attached to the table, but the elephants could reach them only by pulling two ends of the rope simultaneously. Working with mahout—Asian elephant trainers—trained elephants at the Thai Elephant Conservation Center in Lampang, the researchers first taught individual animals to pull the rope with their trunks. The 12 elephants were then divided into six pairs, and each pair was released to walk to their waiting ropes. If one animal pulled the rope before the other, the rope would slip out, leaving the table—and treats—in place. "That taught them to pull together," says Joshua Plotnik, a postdoc in experimental psychology at the University of Cambridge in the United Kingdom and the lead author of the study, which appears online this week in the *Proceedings of the National Academy of Sciences*.

GO ON ▶

3 To find out if the elephants understood that they needed one another's assistance, the researchers upped the challenge by releasing the elephants at different times. Thus, one elephant would arrive at the table before the other and would have to wait for a partner to show up before pulling the rope. "They learned to do this faster than the chimpanzees," says Plotnik. "They would stand there holding their end of the rope, just waiting." In another experiment, the partner's rope was placed out of reach. "When the partner couldn't do anything, the other one would just give up," Plotnik says. That shows the elephants understood why the partner was needed, he adds.

4 "These are clever experiments," says Karen McComb, a behavioral ecologist at the University of Sussex in the United Kingdom who studies social cognition in wild elephants. The findings are consistent with observations in nature, she says. For instance, in East Africa biologists have seen elephants work together to lift a fallen companion with their tusks. "It's particularly striking that the elephants were able to inhibit pulling" longer than chimpanzees do, says comparative psychologist Nicola Clayton of the University of Cambridge in the United Kingdom. She and her team showed that rooks, too, could pass a similar dual-rope exam, although they failed to wait. The study "adds to the growing body of evidence that elephants show some impressive cognitive abilities."
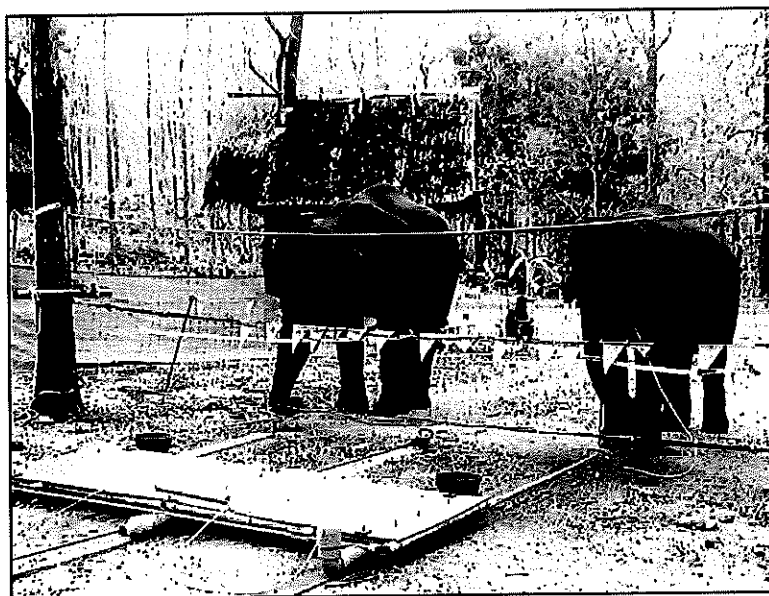
© Joshua Plotnik and Richard Lair

"Elephants Can Lend a Helping Trunk" by Virginia Morell, from *Science*, March 2011 issue. Copyright © 2011 by American Association for the Advancement of Science. Reprinted by permission of AAAS.

GO ON ▶

12. Part A

The key terms **cognition** and **cognitive** are used in paragraphs 1 and 4 of the article "Elephants Can Lend a Helping Trunk." What elephant trait do these key terms refer to?

A. physical strength

B. emotional expression

C. mental awareness

D. visual sensitivity

Part B

Which group of phrases from the article helps the reader understand the meaning of **cognition** and **cognitive**?

A. "Elephants know . . . ."; ". . . pachyderms understand . . . ."; and ". . . ability to recognize . . ." (paragraph 1)

B. ". . . they will fail . . . ."; ". . . partner's assistance . . ."; and ". . . a little help from your friends . . ." (paragraph 1)

C. "'. . . clever experiments . . .'"; ". . . observations in nature . . ."; and ". . . body of evidence . . ." (paragraph 4)

D. ". . . work together to lift a fallen companion . . ."; ". . . inhibit pulling . . ."; and ". . . dual-rope exam . . ." (paragraph 4)

GO ON ▶

13. Part A

How does paragraph 4 of "Elephants Can Lend a Helping Trunk" contribute to the topic?

A. The brief summary of other scientists' research on animal cooperation suggests that the elephant experiment has not revealed many new insights.

B. The quotations from the researchers' fellow scientists emphasize the fact that these findings about elephants are original and important.

C. Statements from scientists who are more familiar with elephant behavior in the wild question the researchers' assertion that elephants cooperate.

D. The scientists' descriptions of similar experiments on rooks and chimpanzees show that the elephant study challenged similar research.

Part B

What detail from the article supports the answer to Part A?

A. The ability to recognize the need for cooperation requires higher-level intelligence.

B. Other species like chimpanzees, hyenas, rooks, and humans also cooperate with each other.

C. The study on elephants appeared in the *Proceedings of the National Academy of Sciences*.

D. The elephants learned to wait for a partner even faster than chimpanzees did.

GO ON ▶

14. Part A

How does the photograph help readers understand technical information presented in the article?

A. by illustrating a pair of elephants waiting for their partners

B. by demonstrating how elephants behave in a natural setting

C. by clarifying how the objects in the experiment were set up

D. by showing how the rope might slip out and leave the table out of reach

Part B

Which paragraph from the article supports the same understanding as the answer to Part A?

A. paragraph 1

B. paragraph 2

C. paragraph 3

D. paragraph 4

GO ON ▶

Unit 2

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GO ON ▶

Read the passage from a study on elephants. Then answer questions 15 and 16.

from "Elephants Know When They Need a Helping Trunk in a Cooperative Task"

by Joshua M. Plotnik

General Setup of the Experimental Apparatus.

1 The table apparatus was comprised of two pieces of plywood painted and bolted to a rectangular PVC pipe frame 3.3 m wide and 1.2 m deep. The table was placed 4 m beyond two trees, and three wooden planks set in the ground ensured smooth movement of the table. A 7-m-wide volleyball net was strung between the two trees, anchored by two strong, taut wire ropes, forming a transparent but impassable barrier between the elephants and the table. In training trials, a single piece of rope, ≈6 m in length, was clipped to the front of the table and fed through a metal ring set in the ground beneath the net. Elephants could approach this rope and pull, drawing the table toward them. A wooden post embedded in the ground (replete with rubber shock absorber made from old tires) served as a stopper that prevented the table from advancing past the net. To keep the table centered as it was pulled in, a ≈2.5-cm-thick wire rope—running perpendicular to the volleyball net—was strung from the buried table stopper, through the central PVC pipe of the table's frame, and then fixed to a tree on the central axis beyond the table. This rigid guide cable prevented any skewing of the table and thus eliminated incongruities in food availability. Two red food bowls were attached to wooden boards, 50 cm in length, one on each side of the table; as the table reached the stop point, the two bowls became available to the elephant just under the net. In test trials, a single piece of 16.5-m-long, 1-cm-thick hemp rope was threaded through guides and around the back and two sides of the PVC frame so that the loose ends appeared out of two openings on either side of the front of the table. Each side's rope end was then threaded through a metal ring set in the ground underneath the net, leaving 1.6 m of rope available to each elephant upon approach.

2 To demarcate the test area, from each of the two central trees was strung a single, flagged green rope ≈1.5 m above the ground and reaching back 10 m behind the net to the release point. During testing and control trials, a third flagged rope was strung down the center of the test area, dividing it into two equally wide lanes (3.5 m); thus, each elephant was released into a single lane

GO ON ▶

and had access only to a single rope end. These two lanes are similar to the separation between subjects in some previous studies (6), but not others, in which subjects were allowed to move around (e.g., refs. 5, 7, and 11). Because of the sheer size of the elephants and their regular, free-contact interaction with the experimenters and mahouts between trials, these lanes were necessary for safety reasons, whereas they did not prevent the elephants from reaching over to their partner or their partner's food bowl. The lanes did not seem to compromise the elephant's ability to learn the experimental task contingencies.

3 All data were coded from two video cameras. A Panasonic PV-GS500 miniDV camera was fixed to a metal mount on a 7-m-long bamboo ladder, which was hoisted on pulleys between the two trees to a height $\approx$8 m above the ground. This camera's view was monitored on the ground via closed-circuit television. A second camera, a Canon HV20, was placed on a tripod beyond the table, providing a heads-on view of the elephants.

Procedure

4 In training trials, a mahout[1] would walk with his elephant to the single available rope end and train his animal to pick up and pull the rope by using vocal commands. Rope-pulling strategies were ultimately at the discretion of the elephant, but all elephants had earlier, as part of the facility's routine, been trained to pull chains. In testing trials, the two mahouts stood at the release point with their elephants and restrained them by touching the ear or front leg. When signaled by the experimenters—who were positioned 10 m to the side and back from the setup—elephants were released down their respective lanes. Upon release, mahouts turned away from the elephants and remained silent to minimize chances for cuing, and in position behind the elephants for safety. Trials began when the mahouts gave release commands—they released their hold on the elephant and gave a single word, "go" command once so that it was up to the elephant whether to proceed—and ended when the rope became unthreaded from the drawer, or when all of the food had been eaten (at which point a simple "stop" command was given by the experimenters and the elephants were recalled). During simultaneous and delayed release trials, each of the two food bowls on the table contained two halves of a full ear of corn, a highly desirable but rarely used food reward at the elephant facility. During the final tolerance condition, two trials each of the following were randomized over six trials: (*i*) each bowl was baited as in test trials, with two half-ears of corn, (*ii*) one (or the other) bowl was baited with six half-ears of corn. In between all

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[1]mahout—the keeper or driver of an elephant

GO ON ▶

trials, mahouts gave elephants pieces of banana and sugarcane to ensure they remained relaxed. Commands were never given during trials, and mahouts were cued to release their elephants with a hand signal that was not visible to the subjects. The interval between trials was 30 s, and elephant pairs never received >30 trials a day. Testing occurred between January and May 2009. Depending on prior obligations at the facility, elephants were tested in the early morning or early afternoon and were often hosed down with water on exceptionally hot days.

5 Success rate per day of delayed release testing in previously trained ($\leq 25\,s$) and untrained ($26 \leq s \leq 45$) delay intervals. Elephants were given 10 trials of each type per day randomized across the session.
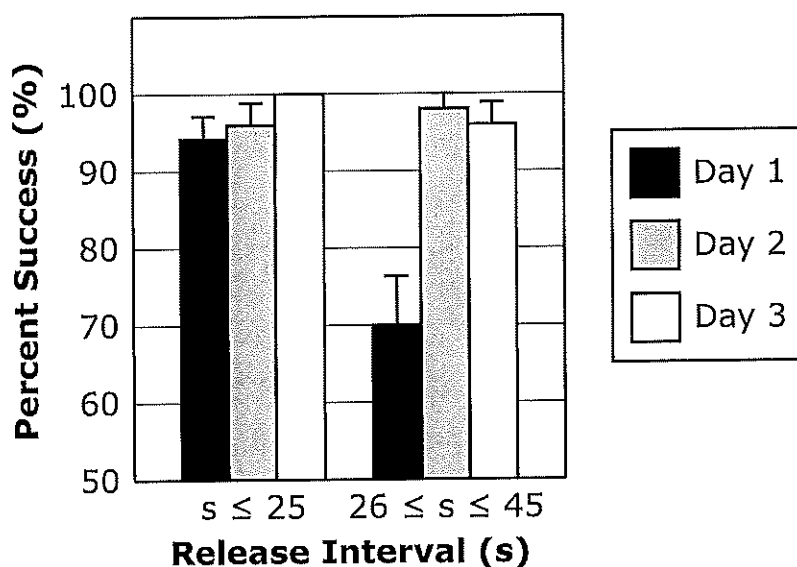
From "Elephants Know When They Need a Helping Trunk in a Cooperative Task" by Joshua M. Plotnik. From Proceedings of the National Academy of Sciences, February 3, 2011, edition. Copyright © 2011 by Joshua M. Plotnik. Reprinted by permission of Proceedings of the National Academy of Sciences.

GO ON ▶

15. Part A

In the explanation of the procedure, the author includes the information that the elephants were released after the mahouts were given a hand signal that the elephants could not see. Why was this step included in the procedure?

A. to guarantee the elephants were making their own choices rather than following direction

B. to keep the elephants calm and make sure they would not be startled by sudden movements

C. to prevent the elephants from misunderstanding the commands they were being given

D. to protect the mahouts and the researchers during their close contact with the elephants

Part B

What other step in the procedure serves the same purpose?

A. "In training trials, a mahout would walk with his elephant to the single available rope end and train his animal to pick up and pull the rope by using vocal commands."

B. "In testing trials, the two mahouts stood at the release point with their elephants and restrained them by touching the ear or front leg."

C. "Upon release, mahouts turned away from the elephants and remained silent to minimize chances for cuing, and in position behind the elephants for safety."

D. "In between all trials, mahouts gave elephants pieces of banana and sugarcane to ensure they remained relaxed."

GO ON ▶

16. Part A

How does the chart build on information provided in the passage?

A. It provides more specific information about the length of time between the release of the first elephant and the release of the second, and whether the pair was successful in the test.

B. It confirms that the length of time between tests for each pair of elephants was never more than 30 seconds and that no elephant pair had more than 30 trials in a day.

C. It shows the length of the rope in each trial and the distance that the pairs of elephants had to pull the table in order to get the corn close enough to eat.

D. It records the distance that the mahouts stood away from the elephants in each trial and whether the elephant pairs were successful in retrieving the treats.

Part B

The chart provides further details for which paragraph in the passage?

A. paragraph 1

B. paragraph 2

C. paragraph 3

D. paragraph 4

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Unit 2

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Read the article "Elephants Console Each Other." Then answer questions 17 through 19.

Elephants Console Each Other

by Virginia Morell

1 Elephants, both African and Asian, have long been considered empathetic animals. They help baby elephants stuck in mud holes, use their trunks to lift other elephants that are injured or dying, and even reportedly reassure distressed individual elephants with a gentle touch of their trunk. But it's one thing to witness something that looks like consolation, and another to prove that this is what elephants are doing. Now, scientists have shown that Asian elephants do indeed get distressed when they see others in trouble, and they reach out to console them—just as we do when we see someone suffering. Elephants, thus, join a short list of other animals, including great apes, canines, and some birds, that scientists have shown to reassure others.

2 The study "is the first to investigate responses to distress by Asian elephants," which "is inherently difficult to assess because one has to wait for opportunities to arise spontaneously," says Shermin de Silva, a behavioral ecologist at the Uda Walawe Elephant Research Project in Sri Lanka. It would not be ethical to intentionally create stressful situations for the animals as a test, she notes— which is why, until now, researchers have had to rely on well-documented but anecdotal observations of wild and captive elephants to back up claims that they reassure each other.

3 Joshua Plotnik, a behavioral ecologist at Mahidol University, Kanchanaburi, in Thailand, and Frans de Waal, a primatologist at Emory University in Atlanta, got around this problem by comparing Asian elephants' behaviors during times of stress to periods when little upset them. For 1 to 2 weeks every month for nearly a year, Plotnik spent 30 to 180 minutes daily watching and recording 26 captive Asian elephants. The animals ranged in age from 3 to 60 years old and lived within a 30-acre area of Elephant Nature Park in northern Thailand. Most of the elephants, aside from mother-juvenile pairs, were unrelated and did not live in family groups as wild elephants do. Instead, the park's Mahouts, or keepers, organized them into six groups which they then guided through a daily routine—bathing and feeding them in the morning, and tethering them at night. But during the day, the elephants were left alone to roam and graze at will.

GO ON ▶

4 Plotnik watched the elephants during their free periods and recorded their reactions to stressful events, such as a dog walking nearby, a snake rustling in the grass, or the presence of an unfriendly elephant. Other researchers have previously shown that when upset, an elephant flares its ears and erects its tail; it may also trumpet or roar, or make a low rumble to show its distress. When elephants in the park saw another elephant behaving in this manner, the observers typically responded by "adopting the same emotion," Plotnik says, "just as we do when watching a scary movie together. If an actor is frightened, our hearts race, and we reach for each other's hands"—a reaction known as "emotional contagion."

5 For example, in one event recorded on video, the female Mae Perm rushes to the side of another adult female, Jokia, who was upset after hearing the roar of a captive bull elephant in another nearby park. Both elephants push their ears forward and raise their tails—but Mae Perm does so only after seeing Jokia's distress. Mae Perm also makes loud chirps, which are known to be reassuring calls, and then caresses Jokia with her trunk, finally placing it in Jokia's mouth—an act which "might send a signal, 'I'm here to help you, not hurt you,'" Plotnik says. Jokia, in turn, places her trunk in Mae Perm's mouth—a gesture which is probably like a hug, the researchers say.

6 Sometimes several elephants were present when one was spooked by something. These bystanders typically reacted the same way, adopting the agitated behavior of the victim, as Plotnik calls the distressed individual, raising their tails, flaring their ears, and sometimes urinating and defecating while chirping. In some cases, they also formed a protective circle around the victim.

7 Plotnik recorded 84 such stressful incidents, noting where each occurred, the time of day, weather, and what other elephants were present—and how these individuals reacted. For a control, he compared these incidents with periods with as many matching variables as possible, but when nothing stressful occurred. The researchers' subsequent analysis—reported today in *PeerJ*—showed that the elephants' emotional contagion and distinctive, reassuring behaviors happened almost exclusively in response to some stressful trigger.

8 Most significantly, the elephants seemed capable of recognizing distress in their fellows, a behavior that may require empathy. "It's that ability to put yourself emotionally into another's shoes," Plotnik says.

9 But proving that is what elephants are doing will take more studies, he and others say, and preferably in wild, not captive, populations. "What is unclear is whether this reassurance primarily benefits the distressed animal, or the responders," de Silva says.

GO ON ▶

10 Nevertheless, the study "provides a very interesting first exploration" into the "post-distress behavior of elephants," says Graeme Shannon, a behavioral ecologist at Colorado State University, Fort Collins, adding that the findings are "intriguing because they parallel what has been observed in captive and wild non-human primates, further underlining the complex cognitive abilities of elephants."

11 Some think the work may aid conservation efforts. "Any good science that supports the idea that elephants are sentient[1] beings capable of empathy is important," adds Cynthia Moss, an ethologist and director of the Amboseli Elephant Research Project in Kenya, who has observed "reassurance behaviors" daily among the elephants there for more than 40 years.

[1]sentient—capable of feeling

From "Elephants Console Each Other" by Virginia Morell, 18 February 2014. Web. 21 July 2014. Reprinted with permission.

GO ON ▶

17. Part A

What does the phrase **anecdotal observations** mean as it is used in paragraph 2?

A. a method of recording an event using special processes

B. a perspective on a subject area that reveals its inner significance

C. a description of an event that lacks seriousness and seeks to entertain through humor

D. a report that is somewhat unreliable because it is based on a personal account

Part B

Which sentence from paragraph 1 provides the **best** evidence for the answer to Part A?

A. "Elephants, both African and Asian, have long been considered empathetic animals."

B. "But it's one thing to witness something that looks like consolation, and another to prove that this is what elephants are doing."

C. "Now, scientists have shown that Asian elephants do indeed get distressed when they see others in trouble, and they reach out to console them—just as we do when we see someone suffering."

D. "Elephants, thus, join a short list of other animals, including great apes, canines, and some birds, that scientists have shown to reassure others."

GO ON ▶

18. Part A

Which statement **best** expresses the central idea in the article?

A. Science plays an important role in educating people about elephants, which may help protect elephants in the wild.

B. Science has provided new support for long-held beliefs that elephants possess advanced social characteristics.

C. Researchers believe that many gestures made by elephants are similar to human hugs.

D. Researchers have used creative methods to design successful studies of elephants.

Part B

Which quotation **best** expresses the central idea in the answer to Part A?

A. "Instead, the park's Mahouts, or keepers, organized them into six groups which they then guided through a daily routine—bathing and feeding them in the morning, and tethering them at night." (paragraph 3)

B. "'What is unclear is whether this reassurance primarily benefits the distressed animal, or the responders . . . .'" (paragraph 9)

C. ". . . the findings are 'intriguing because they parallel what has been observed in captive and wild non-human primates, further underlining the complex cognitive abilities of elephants.'" (paragraph 10)

D. "Some think the work may aid conservation efforts." (paragraph 11)

GO ON ▶

19. Part A

What is the purpose of paragraph 2 of the passage?

A. to give a broad overview of the scientific study before describing the study in greater detail

B. to introduce the perspective of an expert whose opinion differs from that of the other scientists described in the article

C. to suggest that some aspects of elephant behavior are more important to study than others, even though that has only recently been recognized

D. to establish that some elephant behaviors have proved difficult to study, in order to reinforce the importance of the study described in the article

Part B

Which sentence from the passage provides the **best** support for the answer to Part A?

A. "Elephants, thus, join a short list of other animals, including great apes, canines, and some birds, that scientists have shown to reassure others." (paragraph 1)

B. "Joshua Plotnik, a behavioral ecologist at Mahidol University, Kanchanaburi, in Thailand, and Frans de Waal, a primatologist at Emory University in Atlanta, got around this problem by comparing Asian elephants' behaviors during times of stress to periods when little upset them." (paragraph 3)

C. "Most of the elephants, aside from mother-juvenile pairs, were unrelated and did not live in family groups as wild elephants do." (paragraph 3)

D. "Other researchers have previously shown that when upset, an elephant flares its ears and erects its tail; it may also trumpet or roar, or make a low rumble to show its distress." (paragraph 4)

GO ON ▶

Refer to the article "Elephants Can Lend a Helping Trunk," the passage from "Elephants Know When They Need a Helping Trunk in a Cooperative Task," and the article "Elephants Console Each Other." Then answer question 20.

20. You have read three passages about studies involving the behavior of elephants:

- "Elephants Can Lend a Helping Trunk"
- from "Elephants Know When They Need a Helping Trunk in a Cooperative Task"
- "Elephants Console Each Other"

Write an essay analyzing each author's purpose in describing the studies of elephant behavior, and compare the information about the behavior of elephants each author presents in the passages. Remember to use evidence from all three passages to support your response.
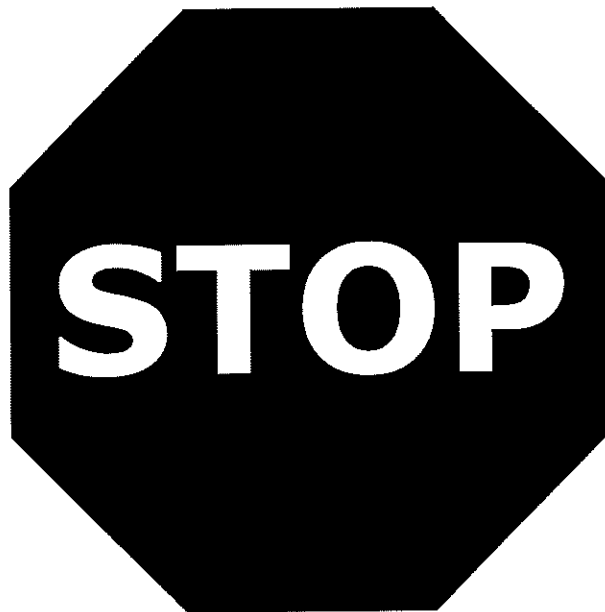
STOP

STOP

You have come to the end of Unit 2 of the test.

- Review your answers from Unit 2 only.
- Then, close your test booklet and answer document and raise your hand to turn in your test materials.

STOP

Unit 3

Directions:

Today, you will take Unit 3 of the Grade 8 English Language Arts/Literacy Practice Test.

Read each passage and question. Then, follow the directions to answer each question. Mark your answers by completely filling in the circles in your answer document. Do not make any pencil marks outside of the circles. If you need to change an answer, be sure to erase your first answer completely.

One of the questions will ask you to write a response. Write your response in the space provided in your answer document. Be sure to keep your response within the provided space. Only responses written within the provided space will be scored.

If you do not know the answer to a question, you may go on to the next question. If you finish early, you may review your answers and any questions you did not answer in this unit ONLY. Do not go past the stop sign.

GO ON ▶

Today you will read and answer questions on a story about a man seeking to complete an important mission. When you have finished reading and answering questions, you will write a narrative story using details from your reading.

Read the passage from *The Seven Keys of Balabad*. Then answer questions 21 through 25.

from *The Seven Keys of Balabad*

by Paul Haven

1 Bahauddin Shah stumbled through the darkened passageway, gripping the cold stone wall for balance and keeping his head low to avoid the rocky ceiling. The sound of his footsteps echoed back at him through the gloom, and his heart thumped beneath his loose-fitting shirt.

2 The old man wore a heavy iron key chain around his belt, and it weighed down on him in more ways than one.

3 There was so little time!

4 Bahauddin held a small lantern in his right hand that threw his shadow onto the dark red wall above him, making his face seem impossibly long and his beard even thicker than it really was, which was pretty thick indeed. The shadow would have scared the living daylights out of anyone who'd seen it, except there was no daylight down there, and certainly nobody living to be scared of it.

5 The tunnel twisted and turned. Every once in a while smaller passageways veered off at odd angles into the darkness. Sometimes Bahauddin came out into vast open rooms that rose up into shapeless voids. There were even enormous darkened ponds, wretched and foul-smelling, like the stink of rotten eggs.

6 Bahauddin covered his nose with a piece of old cloth and tried to stay focused. A man could easily get lost in the Salt Caverns.

7 In fact, that was the whole idea.

8 But Bahauddin would not get lost. He knew every corner of this underground world, and his old body pulled him toward the exit like a falcon returning to his master's arm.

GO ON ▶

9 Bahauddin had just turned into a wet, narrow passage and was examining some black marking on the wall when the thud of cannon fire above him jolted him to the ground. Debris rained down from the ceiling as he knelt on the floor, catching his breath.

10 His hand groped for the key chain, and he smiled when his fingers felt the cold iron.

11 They were all there. All seven of them.

12 The blast that had knocked Bahauddin to the ground could not have been more than twenty feet above him. He was nearly at the surface.

13 For the first time, Bahauddin allowed himself to think what he would find up there, twelve hours after he had set off on the most important mission of his life. What would be left of his city, his family, the palace?

14 "It does not matter," the old man reassured himself, brushing his clothes off in the darkness. "Baladis are survivors. We will rebuild. It just might take some time."

15 The outsiders would eventually lose interest, just like all the other outsiders who had come before them, Bahauddin thought.

16 Balabad's great defense was that it was impossible to hold on to, and any rational outsider eventually came to the same conclusion. There were vast deserts in the south, impossibly tall mountain ranges in the east, endless plains in the west, and ten thousand feuding tribes in the north, all angry about some long-ago slight, and all willing to drag a foreigner into their squabbles.

17 Of course, it usually took a decade or so before the invaders would see that it was not worth sticking around, for invaders do not easily give up.

18 Bahauddin reached the end of the narrow passageway and held his lantern above his head. A small shaft ran straight up from the stone ceiling, about the size of a chimney and just big enough for a man to climb through. You would never have seen it had you not known where to look.

Unit 3

GO ON ▶

21. Part A

Which sentence states a central idea of the passage?

A. Bahauddin Shah is lost in a vast underground cave, and he is frightened.

B. Bahauddin Shah is the guardian of an important secret that will allow the people of his city to survive after a destructive attack.

C. The Salt Caverns are a secret underground hiding place for the citizens of the city, and Bahauddin Shah is the only one who can open the caverns.

D. Outsiders who come to conquer Bahauddin Shah's city soon realize they are in very hostile territory.

Part B

Which detail from the passage **best** states the central idea?

A. "The sound of his footsteps echoed back at him through the gloom, and his heart thumped beneath his loose-fitting shirt." (paragraph 1)

B. "'Baladis are survivors. We will rebuild. It just might take some time.'" (paragraph 14)

C. "Balabad's great defense was that it was impossible to hold on to, and any rational outsider eventually came to the same conclusion." (paragraph 16)

D. "You would never have seen it had you not known where to look." (paragraph 18)

GO ON ▶

22. Part A

How does paragraph 1 help to develop the plot of the passage?

A. The paragraph creates admiration for Bahauddin Shah by describing his determination.

B. The paragraph establishes the conflict by explaining the reason Bahauddin Shah is alone in the dark.

C. The paragraph creates suspense by providing sensory details in the scene.

D. The paragraph foreshadows later events in the passage by describing the rising action.

Part B

Which additional quotation from the passage helps to develop the plot in the same way as paragraph 1?

A. "He knew every corner of this underground world, and his old body pulled him toward the exit like a falcon returning to his master's arm." (paragraph 8)

B. "Bahauddin had just turned into a wet, narrow passage and was examining some black marking on the wall when the thud of cannon fire above him jolted him to the ground." (paragraph 9)

C. ". . . ten thousand feuding tribes in the north, all angry about some long-ago slight, and all willing to drag a foreigner into their squabbles." (paragraph 16)

D. "Bahauddin reached the end of the narrow passageway and held his lantern above his head." (paragraph 18)

GO ON ▶

23. Part A

What aspect of Bahauddin Shah's character is revealed throughout the passage?

A. He does not give up when faced with difficult circumstances.

B. He takes his position in Balabad seriously.

C. He is concerned about the well-being of his fellow citizens of Balabad.

D. He has confidence that the city will remain untouched.

Part B

Which **two** details from the passage provide evidence to support the answer to Part A?

A. "Sometimes Bahauddin came out into vast open rooms that rose up into shapeless voids." (paragraph 5)

B. "But Bahauddin would not get lost." (paragraph 8)

C. ". . . his old body pulled him toward the exit like a falcon returning to his master's arm." (paragraph 8)

D. "'It does not matter,' the old man reassured himself . . . ." (paragraph 14)

E. "The outsiders would eventually lose interest, just like all the other outsiders who had come before them, Bahauddin thought." (paragraph 15)

F. "Bahauddin reached the end of the narrow passageway and held his lantern above his head." (paragraph 18)

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24. Part A

Which inference can the reader make about Bahauddin Shah from the information in paragraph 2?

A. Bahauddin Shah was too weak to carry the key chain farther.

B. Bahauddin Shah felt a great responsibility to his fellow citizens for keeping the keys safe.

C. Bahauddin Shah was worried that the key chain would keep him from accomplishing his task.

D. Bahauddin Shah felt that the keys were a symbol of his authority over others.

Part B

Which **two** sentences from the passage support the answer to Part A?

A. "The old man wore a heavy iron key chain around his belt, and it weighed down on him in more ways than one." (paragraph 2)

B. "But Bahauddin would not get lost." (paragraph 8)

C. "His hand groped for the key chain, and he smiled when his fingers felt the cold iron." (paragraph 10)

D. "He was nearly at the surface." (paragraph 12)

E. "What would be left of his city, his family, the palace?" (paragraph 13)

F. "You would never have seen it had you not known where to look." (paragraph 18)

GO ON ▶

25. Write a continuation of the story of Bahauddin Shah using details from the passage. Describe what you think might happen after Bahauddin Shah climbs out of the Salt Caverns. What obstacles might he face, and what actions might he take to overcome them?

GO ON ▶

GO ON TO NEXT PAGE

Today you will read two articles that explain how to participate in two sports which are growing in popularity.

Read the passage from "A Beginner's Guide to Snowboarding." Then answer questions 26 and 27.

from "A Beginner's Guide to Snowboarding"

by Monica Nelson

1 So, are you getting as excited for the season as I am? Not only is snowboarding fun, but it's good for you, too. You can burn up to 400 or 500 calories an hour, and you work your entire body. I'm talking your legs (glutes, hamstrings, calves and especially your quads, as well as your core and back muscles). Snowboarding with your family is also a fun way to stay active and connected this winter. Plus, your kids will think you're very cool.

2 The best situation is learning on a mountain that's not pure ice and isn't too intimidating. Start by taking a few lessons or go with a friend who's a great teacher – and very patient. Hopefully this same friend also has extra gear for you and can show you the ropes for a day or two. (Bonus points if she has a hot tub for the hours after the hill, too.)

Getting Your Gear

3 The most important items to pay attention to are your board, bindings and boots. Chances are, you're not trying to make a living at this, so you may feel like you need just the basic equipment. However, it's important to consider that higher-end gear can give you much more control, which generally results in less falling, and therefore keeps you more comfortable. Your local ski and snowboard shop will hook you right up. Tell them it's your first time, and they should do a great job of telling you everything you need to know.

4 So what size board do you need? It depends mainly on your weight and height. For example, a board that's too big will be more difficult to maneuver and control, while a board that's too small may feel loose and harder to control at high speeds and in deeper snow. Having comfortable boots that fit is very important, too – it's frustrating if they're too big or tight. The good news is that the crew at the shop will suggest what size board, boots and bindings you need.

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5 Next, you need to figure out which direction you'll face when riding down the mountain – also known as your stance. If your left foot is in front, you ride "regular," and if your right foot is in front, you ride "goofy." If you've surfed or skateboarded before, you probably already know which stance to take. But the folks at the rental shop can also help you decide what feels most natural.

The Basics

6 Here are some tips I've learned throughout 15 years of "shredding." These basics are very important, because you don't want to develop bad habits. These apply to all types of snowboarding, from halfpipe, to big air, to back country and free riding.

7 Getting on and off the lift can be scary; if need be, ask the operator to slow the chair down for you at the top and bottom. Keep in mind you only have one foot strapped in because you push off with the other foot. Go slow at first, and you'll be just fine.

8 Your ideal day would be clear and sunny with a good amount of soft snow for extra padding when you take a fall. Check out the weather reports as you plan your trip. Lots of snow is great for those who know what they're doing, but not so ideal for beginners. Spring, meanwhile, is often a good time to learn, because it's warmer out and you can see what you're doing at all times.

9 When starting, edge control is everything. Always keep the forward/downward-facing edge of your board in mind, and don't let it down to catch the snow.

10 Remember that falling is part of learning. To be completely honest, I broke my wrist while I was learning, and I also bruised my tail bone. The good news is that wrist guards and butt pads are now available. So if you do take a fall, there won't be as much impact on your body.

11 It's also worth mentioning that skiing and snowboarding are completely different. Skiers have four edges and two poles, and their legs face forward. Snowboarders, on the other hand, have two edges and no poles, and our legs face sideways.

12 When you're first coming down the mountain, it's important to learn how to stop, control your speed and make long, proper turns. It may feel strange, but watch how quickly your body adapts to this new environment. Just remember, soon you'll "be one" with the board. That said, you may be sore the next day. This is normal; just make sure to give yourself proper rest. Spend some time in a hot tub, or try an Epsom salt bath if you really have muscle soreness.

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13 Most important, remember to have fun and that nothing happens over night. Snowboarding is one of the most rewarding sports to learn and a great way to enjoy the winter.

GO ON ▶

26. Part A

In paragraph 3 of "A Beginner's Guide to Snowboarding," how does the author show a connection between the professional snowboarder and the amateur snowboarder?

A. by suggesting that both the professional and the amateur need high-quality equipment

B. by contrasting the kinds of equipment available to professionals with the equipment available to amateurs

C. by comparing the kinds of equipment that professionals use to the equipment amateurs select

D. by implying that sales associates treat an inexperienced amateur differently than an experienced professional when trying to make a sale

Part B

Which piece of evidence from paragraph 3 **best** supports the answer to Part A?

A. ". . . you need just the basic equipment."

B. ". . . consider that higher-end gear can give you much more control . . . ."

C. "Your local ski and snowboard shop will hook you right up."

D. ". . . a great job of telling you everything you need to know."

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27. Part A

Based on the passage, what can the reader infer is one purpose the author has for writing "A Beginner's Guide to Snowboarding"?

A. to promote snowboarding by discussing the benefits it offers for people willing to learn the sport

B. to provide objective instructions to help beginning snowboarders improve their skills

C. to advise beginners about the benefits and hazards of participating in an extreme sport

D. to entertain the reader with humorous anecdotes about how she learned to snowboard

Part B

Which **three** sentences from the passage **best** support the answer to Part A?

A. "Not only is snowboarding fun, but it's good for you, too." (paragraph 1)

B. "Snowboarding with your family is also a fun way to stay active and connected this winter." (paragraph 1)

C. "These basics are very important, because you don't want to develop bad habits." (paragraph 6)

D. "Go slow at first, and you'll be just fine." (paragraph 7)

E. "To be completely honest, I broke my wrist while I was learning, and I also bruised my tail bone." (paragraph 10)

F. "When you're first coming down the mountain, it's important to learn how to stop, control your speed and make long, proper turns." (paragraph 12)

G. "Snowboarding is one of the most rewarding sports to learn and a great way to enjoy the winter." (paragraph 13)

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Unit 3

Read "How to get started sandboarding." Then answer questions 28 through 30.

How to get started sandboarding

by Harriet Potter

1 DESPITE HAVING NORTH America's tallest sand dunes, Colorado's Great Dunes are relatively unknown outside the state. Located at the foot of the Sangre de Cristo mountain range, about 4 hours south of Denver, the Great Dunes cover more than 30 square miles and contain over 170 billion cubic feet of sand. They look out of place, like someone dropped the Sahara at the foot of the Rockies.

2 While the dunes, the most recent addition to America's national park system, see some 270,000 visitors each year, few come for the sandboarding.

3 Although there's evidence of this pastime in ancient Egypt and China, it's only really been in the past 10 years that it's become a recognized sport. In terms of technique and equipment, sandboarding is very similar to snowboarding, but much cheaper and arguably less risky.

4 Sandboarding is still a niche sport, for a few reasons. The locations are remote, and trudging up to the top of the dune after every run (there are no sand lifts) requires a reasonable degree of fitness.

5 We were headed for Star Dune, one of the tallest in the park. Getting there is a journey in itself; in between the 3-mile hike from the parking lot and the park's location at 8,000 feet above sea level, you have to be committed to the cause.

6 I can't remember the last time I had so much fun while exercising, although my legs and butt really paid for it the day after. Compared to busy ski slopes, it was a joy to be somewhere so quiet and empty.

7 As a complete beginner, I was at liberty to make a complete fool of myself without getting in anyone else's way or having to worry about what I looked like.

Gear

8 If you're looking for a smooth, fast ride, you'll want a board that has a slick base. Modern sandboards are made from a combination of wood, Formica™, or glass fiber and resin. There are 3 basic types: freestyle, freeride, and speed.

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9 The cheapest boards retail for about $150 (good online vendors include www.venomousboards.com and www.oceanculture.com) while rentals range from $10-50 a day. If you're on a budget, there are plenty of tips online about making your own.

Technique

10 Place your board pointing downhill, without letting it run away from you. Strap yourself in while sitting down on the sand.

11 Stand up with both knees bent and your head facing the direction you are going, keeping your weight over the center of the board. Holding your arms out for balance, shift your weight to your back foot and take off.

Where to go

12 While most sand dunes are open parks with free access, it is important to keep conservation in mind, as dunes can be fragile ecosystems. Before heading out to a particular location, do some research on acceptable use and designated areas.

Oregon Dunes National Recreation Area, USA

Monte Kaolino, Germany

Great Sea of Sand, Egypt

Namib Desert, Namibia

Fish Hoek Dunes, South Africa

South and Western Australia

Cerro Blanco, Peru

Huacachina, Peru

Cerro Iman, Chile

Taklamakan Desert, China

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28. Part A

How does the author structure paragraph 1 of "How to get started sandboarding" to provide information to the reader about the Great Dunes?

A. as a comparison to help the reader grasp the beauty of the Great Dunes

B. as a list of facts to help the reader understand that the dunes exist in other countries

C. as a comparison to help the reader visualize the size of the Great Dunes

D. as a list of facts to help the reader comprehend the importance of the Great Dunes to the United States

Part B

Which detail in paragraph 1 **best** demonstrates the answer to Part A?

A. ". . . North America's tallest sand dunes . . ."

B. ". . . relatively unknown outside the state."

C. ". . . contain over 170 billion cubic feet of sand."

D. ". . . like someone dropped the Sahara at the foot of the Rockies."

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29. Part A

In paragraph 4 of "How to get started sandboarding," the author refers to sandboarding as a "**niche** sport." What is the meaning of **niche** as it is used in the article?

A. Sandboarding is an activity that offers more excitement than similar sports.

B. Sandboarding is a specialized sport that offers a unique experience to a few people.

C. Sandboarding is one way to achieve recognition in the sports world.

D. Sandboarding is a more environmentally friendly activity than other sports.

Part B

Which paragraphs offer the **best** support for the meaning of **niche**?

A. paragraphs 1 and 2

B. paragraphs 5 and 6

C. paragraphs 8 and 9

D. paragraphs 11 and 12

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30. **Part A**

What can the reader infer is the author's purpose for including the list at the
end of "How to get started sandboarding"?

A. to share understanding about the areas that are making efforts to protect
sand dunes from becoming overused

B. to provide evidence of the pastime's widespread popularity around the
globe

C. to explain why sandboarding is not as popular in the U.S. as it is in other
countries

D. to inform readers of places a person can go to participate in the sport

Part B

Which detail from the article serves a similar purpose as the answer in Part A?

A. "Located at the foot of the Sangre de Cristo mountain range . . ."
(paragraph 1)

B. ". . . there's evidence of this pastime in ancient Egypt and China . . . ."
(paragraph 3)

C. ". . . you have to be committed to the cause . . . ." (paragraph 5)

D. ". . . dunes can be fragile ecosystems . . . ." (paragraph 12)

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Refer to the passage from "A Beginner's Guide to Snowboarding" and the article "How to get started sandboarding." Then answer question 31.

31. Part A

How do the authors develop a similar central idea in the passage from "A Beginner's Guide to Snowboarding" and "How to get started sandboarding"?

A. by sharing personal experiences in the sport

B. by emphasizing the enjoyment of the sport

C. by describing the costs of the sport

D. by warning of dangers of the sport

Part B

Select **one** piece of evidence from the passage from "A Beginner's Guide to Snowboarding" and **one** piece of evidence from "How to get started sandboarding" to support the answer to Part A.

A. "So, are you getting as excited for the season as I am?" (from "A Beginner's Guide to Snowboarding," paragraph 1)

B. "The best situation is learning on a mountain that's not pure ice and isn't too intimidating." (from "A Beginner's Guide to Snowboarding," paragraph 2)

C. "Here are some tips I've learned throughout 15 years of 'shredding.'" (from "A Beginner's Guide to Snowboarding," paragraph 6)

D. "In terms of technique and equipment, sandboarding is very similar to snowboarding, but much cheaper and arguably less risky." ("How to get started sandboarding," paragraph 3)

E. "Compared to busy ski slopes, it was a joy to be somewhere so quiet and empty." ("How to get started sandboarding," paragraph 6)

F. "If you're on a budget, there are plenty of tips online about making your own." ("How to get started sandboarding," paragraph 9)

STOP