

## GRADE 5 <br> READING MATHEMATICS SCIENCE

## Administered 2006

## READING

## ADMINISTERED IN FEBRUARY

## Wednesday, February 2, 2000 Late Edition <br> THE $\mathbb{N E W}$ YORR GAZETME

## London Eye Sees First Passengers

London architects David Marks and Julia Barfield wanted to celebrate the New Year in a remarkable way. They
LONDON—The world's largest Ferris wheel, the London Eye, has finally made its first revolution with people aboard. The event, intended for New Year's Day, was delayed a month. But today the 700 people who took the first ride on the Ferris wheel agreed it was well worth the wait. And they couldn't wait for another turn.

The London Eye rises more than 440 feet above the city. The wheel sits on the south bank of the Thames River, standing high above the House of Parliament and the famous Big Ben clock. Made of more than 1,300 tons of steel, glass, and cable, the wheel cost about $\$ 50$ million to build. The main part of the wheel was built in the Netherlands, while other pieces were made in other European countries. The assembly of the parts was done on large temporary platforms stretched across the Thames River. Large cranes lifted the gigantic wheel to its upright position. With the amount of effort it took, it's no wonder the London Eye was not completed on time.


The London Eye's official grand-opening celebration will be March 1, 2000.
chose a wheel design that would represent the turning of one millennium, or one thousand years, into a new millennium. Their vision was to create a structure that people could play a part in and enjoy.

- see London Eye, page 2

Photo courtesy of © Pawel Libera/CORBIS.

The Ferris wheel moves continuously at about two miles per hour. People can easily get on the ride by stepping from a boarding platform into the slow-moving passenger cars called pods. There are 32 pods on the London Eye. The pods have glass walls and are heated in winter and cooled in summer. Each pod can carry 25 passengers. In clear weather riders can see about 25 miles in every direction, viewing sights such as Windsor Castle. The ride takes about half an hour to complete. At the end of the trip, thrilled passengers clap and
cheer loudly. Nearly everyone wants to repeat the experience again and again.

The plan of the builders is for the 2005, when it is supposed to be taken down. From the reaction of its first riders, however, this may not happen. Many riders have voiced the opinion that the wheel should keep turning after 2005. It is clear that the crowds of people enjoying the London Eye want it to stay where it is for many years.

## Dear Christy,

I am in London, England, visiting Aunt Connie and Uncle Nigel. We've gone to many places and seen dozens of amazing things. The best thing I've done so far is ride the London Eye, the largest Ferris wheel in the world. It sits on a bank of the Thames River, which runs right through the city.

Hundreds of people were waiting to buy tickets when we got there. Luckily Uncle Nigel bought the tickets months ago. We were able to get in line for the ride right away. While we waited, I looked up at that huge wheel turning in the sky, and I began to feel a little reluctant. It looked a little scary, and I wasn't sure I wanted to ride after all.

Finally we walked up a ramp and onto a platform that extended over the river. An empty car called a pod came down toward us. It moved very slowly. As it turned, we were able to step inside easily. The automatic door shut behind us. The noise and cold of the outside world disappeared. Inside the pod it was warm. I forgot my fears and relaxed. The ride was smooth and calm. It wasn't at all like those jerky amusement-park rides we have back home.

The pod began to rise slowly. Aunt Connie and Uncle Nigel sat on a bench in the center of it. Other passengers walked from side to side. The pods were made so that people would have plenty of room to move around. I stood next to the curved glass wall. It was like flying in a gigantic fishbowl!

Aunt Connie and others began pointing out landmarks below us. They talked about the famous places they could see from so high up. Aunt Connie saw the statue of Lord Nelson. Uncle Nigel pointed at the building where he and Aunt Connie live. He also pointed out the Tower Bridge, St. Paul's Cathedral, and a dozen other buildings. As for me, I was watching the bright-red buses that looked like toys on the streets below. The Thames River looked like a silver ribbon right in the middle of the city.

As we reached the top of the ride, we could see Windsor Castle far off to the west. Aunt Connie told me that the kings and queens of England have lived there for more than 900 years.

Over the next 15 minutes, we gradually returned to the ground. When it was over, I was ready to go again, but there were too many other people waiting for their turn.

Someday I hope you can come with me to visit London. We can ride the London Eye at night. I've heard that the lights of London shine like a million stars beneath your feet. See you soon!

Your cousin,
Lacey

## Use the newspaper article (pp. 4-5) <br> to answer questions 1-4.

1 The London Eye was built to -

A allow people in London to see nearby landmarks

B fill an empty space on the river
C celebrate the new millennium
D carry people across the Thames River

2 In paragraph 5, the word reaction means -
F a response
G a plan
H an agreement
J an offer

4 Look at the outline below and answer the question that follows.
I. $\qquad$
A. Move two miles per hour
B. Have glass walls
C. Hold 25 people
D. Can be heated or cooled

Which idea belongs in the blank?
F Sections of the London Eye
G Pods on the London Eye
H Buildings near the London Eye
J Why the London Eye was built

3 Paragraph 2 is mainly about -
A the workers who built the London Eye
B how the London Eye was constructed
C the cranes used to lift the London Eye
D how much the London Eye cost to build

## Use the letter (pp. 6-7) to answer questions 5-8.

5 Which sentence from the letter suggests that the London Eye is even more thrilling at night?

A The best thing I've done so far is ride the London Eye, the largest Ferris wheel in the world.
B Aunt Connie saw the statue of Lord Nelson.
C The Thames River looked like a silver ribbon right in the middle of the city.
D I've heard that the lights of London shine like a million stars beneath your feet.

6 The first-person point of view in the letter helps the reader understand -

F Lacey's thoughts and feelings during the ride
G why the builder chose to build the London Eye
H how hard it was to build the London Eye
J Uncle Nigel's reasons for taking Lacey on the ride

7 In paragraph 2, the word reluctant means -
A angry
B unsure
C tired
D impatient

8 The reader knows that passengers on the London Eye are not required to stay in their seats, because -

F it was built so people would have room to move around
G no one is watching what they do
$\mathbf{H}$ an announcer tells them they may walk around
J the pod tilts as the people move

## Use the newspaper article and the letter to answer questions 9-11.

9 How does the reader know that it was a clear day when Lacey rode the London Eye?

A She saw the pod above her.
B She could see Windsor Castle.
C There were many people waiting in line.
D She wanted to ride again.

10 Which detail in Lacey's letter shows that she felt the same way about the London Eye as the passengers in the newspaper article felt?

F Lacey thought the Ferris wheel looked scary.

G Lacey wanted another turn on the ride.
H It was peaceful and warm inside.
J Lacey thought the pod looked like a giant fishbowl.

11 A similarity between these two selections is that both discuss -

A the new millennium
B the plans to take down the London Eye in 2005

C the London Eye's builders
D the view passengers have while riding the London Eye


If you have ever dreamed of finding a sunken ship loaded with treasure, you probably pictured finding it at the bottom of an ocean. You might have imagined the ship partly covered by sand, with brilliant coral clinging to its surface. Only you and some colorful tropical fish would know its location.

Many people have watched television shows or read books about the discovery of ships laden with objects from the past. But few people have heard of such a ship being discovered under a cornfield.
read old newspaper articles about steamboats and looked at old maps. Then they learned about the Arabia, which had sunk close to their hometown. They researched the Arabia further for clues to its location.

In the 1800s the Missouri River was a major transportation route for steamboats, which carried goods and passengers to the western frontier. Unfortunately, travel by steamboat was sometimes dangerous. Some steamboats caught fire. On others the boiler, which made steam to power the paddles, exploded. However, the greatest threats to steamboats on the Missouri River were tree roots and other underwater obstacles. These hidden obstacles tore holes in the bottom of ships and caused them to sink.

The four partners learned that the Arabia sank in 1856 after striking an underwater tree. The 130 passengers on board made it safely to shore before the

Continued on page 33

Over the years the Missouri River changed course. The river gradually turned away from the sunken boat, leaving it buried beneath the mud. Over time additional layers of dirt accumulated in the riverbed. The Hawleys and Mackey used old survey records to determine that the Arabia was actually a half mile from the current location of the riverbank.

In July 1987 the treasure hunters got permission from the landowner to search his cornfield for the Arabia. Using a metal detector and what they had learned from their research, in only two hours they found what they believed to be the ship. It was buried under 45 feet of dirt! A ribbon was tied to a stalk of corn to mark the location of the Arabia. It was more than a year before the men were able to get all the equipment they needed and return to dig for the Arabia.

Even with the proper equipment, the Hawleys and Mackey knew that they
would probably have to confront many difficulties when they finally began digging. They found a large amount of groundwater surrounding the Arabia, making digging extremely difficult. But the men solved the problem by pumping the groundwater away. They used bulldozers and backhoes to excavate the dirt, mud, and sand. Each day as the hole got bigger and they got closer to their goal, their sense of excitement grew. After almost three weeks a paddle wheel of the Arabia was finally uncovered.

In the following months the partners started early and worked long into the night to recover the items buried with the Arabia. Each day brought new wonders. Crates and barrels on the boat held thousands of objects from the 1850s, including clothes, buttons, shoes, boots, and eyeglasses. There were beautifully painted bowls and dishes, bottles containing perfume that still smelled wonderful, and even jars of pickles that were still good to eat.

Although the objects found by the men did not bring them the wealth they had imagined, they knew they had discovered a treasure of a different kind. In 1991 the Hawleys and Mackey opened the Arabia Steamboat Museum in Kansas City, Missouri. The museum attracts thousands of visitors each year. In order to prepare the objects to be displayed, the Hawleys
and Mackey had to learn how to keep their treasures from decaying. They have even learned how to restore some of the damaged items to make them look as they did in 1856. "I've gotten close to those people of 1856 ," Bob Hawley said. "I feel I know them now." It's an idea that his sons and Jerry Mackey share.

12 At the end of the article, the reader can tell that the men -

F enjoy running the Arabia museum and restoring the ship's cargo
G are tired from working so hard on the Arabia project
H have become wealthy from selling the objects from the Arabia
J have become famous from the attention given to the Arabia

13 In paragraph 9, what does the word excavate mean?

A To remove
B To survey
C To notice
D To discover

14 What is one idea found throughout this article?

F Going after a dream can be rewarding in unexpected ways.

G Museums can reveal much about history.
H Steamboat travel was important during the 1800 s.

J People must dig for buried treasure in order to be happy.

15 Paragraphs 6 and 7 are mostly about -
A how the treasure hunters decided to locate the Arabia

B what the treasure hunters learned about the Arabia

C how the Missouri River slowly changed its course

D why so many accidents happened on the Missouri River

17 Before the Hawleys and Mackey could dig successfully, it was necessary to -

A use bulldozers and backhoes to remove the dirt from the site

B remove groundwater surrounding the ship
C determine what materials were used to build the ship

D learn exactly what cargo the ship had been carrying

18 What is this article mainly about?
F How to find sunken ships
G Preserving buried treasure after finding it
H Why people search for sunken ships
J Finding buried treasure in an unusual place

16 How does the author organize this article?
F By describing the treasure hunters' experiences as they happened
G By explaining why steamboats sink and what happens to their cargoes
H By comparing a search for buried treasure underwater with a search underground
J By listing the advantages and disadvantages of searching for sunken treasure

19 Which is the best summary of this article?
A Four men set out to find a sunken steamboat by studying historical records. After much work they found and dug out the Arabia, which was buried under a cornfield near the Missouri River. The men opened a museum to display the historical treasure of old clothing, dishes, perfume, and other objects.
B While trying to find sunken treasure, four men learned about steamboats on the Missouri River. They decided to search for the Arabia and located it under a cornfield. More than a year passed before the men could begin digging up the steamboat and its treasure.

C Searching for sunken treasure takes much time and effort. Four men began looking for a steamboat by studying newspaper articles. They also used old maps and surveys that helped them find the steamboat Arabia, which had sunk in the Missouri River.

D Four men found the sunken steamboat Arabia under a cornfield near the Missouri River. The men worked long hours to remove wonderful objects, including old clothes, eyeglasses, dishes, and food, from the ship. The men learned how to keep the treasures from decaying.

20 Why did the treasure hunters open a museum to display their finds from the Arabia?

F To convince others of the rewards of treasure hunting

G To show people how to preserve old objects they find

H To share the history of the steamboat and its passengers

J To raise money to search for more sunken steamboats

## My Trip to the Rain Forest

by Enrique Sandoval day my teacher told my class about a national essay contest and that the grand prize was a trip to a rain forest in Costa Rica. I entered the contest because it was easy for me to write about why rain forests are important. I'm amazed that I actually won. This trip has been the best thing that has ever happened to me in my whole life!

My parents and Ispent the first day of the trip on a plane and a bus. First we flew from Dallas to San José, Costa Rica. Then we took a bus to a lodge that is actually inside the rain forest. We went to bed early to prepare for the adventure ahead of us. I fell asleep listening to the sound of birds singing in the rain forest.

The next day we started at the information center. We watched a video about the plants and animals we might see on our trip through the rain forest canopy, the top layer of the rain forest. The limbs and branches of the tall trees grow close together to make a kind of roof over the rest of the forest. This living roof is where most of the animals and plants live. The best way to see or study these animals is to take a tour in a canopy tram.

The trams are basically big, open metal boxes with seats. Each tram has a wheel at the top that runs on a thick cable strung


Tramway in rain forest canopy
between towers among the trees. The sides of the tram are exposed so that people can see, smell, and hear everything. Each tram holds six people, including a guide who knows a great deal about the rain forest. Our guide was named Juventino. Before we left the ground, he told us that rain forests have more kinds of plants and animals than any other place on Earth.

The tram took off with a small lurch. We climbed higher and higher through leaves and branches toward the treetops. I was really enjoying the scenic ride when I heard a loud noise that made me jump. It sounded something like the roar of a lion. Juventino told us we were being greeted by a howler monkey. Then another howler monkey joined in. The monkeys were so loud that I had to cover my ears as we got closer to them.

We traveled a little farther, and Juventino pointed to a greenish furry blob in one of the trees. It looked like a dog with a short nose and tiny eyes. Juventino said the animal was a threetoed sloth, one of the slowest animals on Earth. This sloth
 sleeps almost all day, every day! Even when it is awake, it moves so slowly that green algae grows on its fur. These tiny life-forms give the sloth's fur a greenish color. That helps the sloth blend in with its surroundings. These two species actually help each other stay alive. I had thought this was so neat that I wrote about it in my essay.

We also saw a small group of sleeping bats. Like the sloth, the bats were so well camouflaged that we probably would not have seen them if Juventino hadn't pointed them out to us. There were also butterflies that looked just like the leaves and bark of the trees where they rested. Juventino said several kinds of snakes live in the canopy, but unfortunately we didn't see any. The coloring of the snakes kept them concealed among the trees and
plants. After a while I was able to see some of the disguised creatures. I even saw an insect whose body looked like it was made of sticks. I had written about some of these animals in my essay, so it was great to see some in person.

Everywhere we looked there was a different kind of tree. The limbs crossed over and under one another but often didn't touch. The most unusual tree that I saw looked like a bunch of broccoli. I started laughing when Juventino told us that it is called the broccoli tree. The foliage made the rain forest seem like a painting because of its different shades of green and different sizes and shapes.

9
Before I knew it, the canopy tour was over. After we returned to the lodge, I kept thinking about the spectacular sights and sounds of the rain forest. I knew that I had seen one of nature's most remarkable creations. The things I wrote about in my essay now have real meaning. In fact, l'm starting to think about what I can do to help protect this amazing place.


Rain forest in Costa Rica

Photograph first page courtesy of © Steve Kaufman/CORBIS; photograph second page courtesy of © Buddy Mays/CORBIS; photograph this page courtesy of © Gary Braasch/CORBIS.

21 Why does Enrique write that this trip is the best thing that ever happened to him?

A He has dreamed of riding through the rain forest on a canopy tram.

B He had to work hard to write an essay about the rain forest.

C He has always wanted to take a trip with his parents.

D He has been interested in rain forests since he was a small child.

22 From information in the selection, the reader can tell that the rain forest in Costa Rica is -

F a little-known vacation spot
G full of loud noises
H home to some unusual animals
J dangerous for humans

23 Look at the following web of information from the selection.


Which of the following belongs in the empty oval?
A Covered with algae
B Makes loud noises
C Moves quickly
D Runs along cables

24 From information in the selection, the reader can conclude that certain species in the rain forest -

F are afraid of the tram
G sleep on the forest floor
H depend on one another
J eat the leaves of the broccoli tree

25 Paragraph 4 is mainly about -
A what a canopy tram is like
B the passengers riding in a canopy tram
C how a canopy tram works
D the animals seen from a canopy tram

26 Which is the best summary of this selection?
F After winning an essay contest, Enrique travels with his parents to a rain forest in Costa Rica. They ride a tram through the treetops and see many different animals and plants. Enrique gains a new understanding of some of the facts he used in his essay.

G Enrique writes an essay and wins a trip to a rain forest. After arriving in Costa Rica, he and his parents check into a lodge in the rain forest. The next morning they ride in a canopy tram, and the guide tells them many new things about the animals that live there.

H Enrique and his parents travel to a rain forest in Costa Rica and stay at a lodge. When they ride in a canopy tram, they see a three-toed sloth that looks green because algae grows on its fur. They also see some sleeping bats.

J While traveling in a canopy tram, Enrique and his parents listen to the tour guide. They learn about many different animals. They learn how to look for animals that are hiding in the trees. Enrique laughs when he sees a tree that looks like a bunch of broccoli.

27 Why do Enrique and his parents take a ride in the canopy tram?

A They are eager to have Juventino teach them about the animals.
B Most of the animals in the rain forest live high in the trees.
C They want to avoid walking among the trees.
D The ride through the treetops is exciting.

28 Why do Enrique and his parents go to bed early after arriving at the lodge?

F They want to be well rested for the tour the next morning.

G The sound of the birds of the rain forest puts them to sleep.

H They are tired after the long airplane trip from Dallas.

J The tour guide tells them that the tram ride the next day will be difficult.

29 How does Enrique organize what he wrote about the rain forest?

A By discussing his trip to the rain forest from start to finish

B By describing what a canopy tram looks like and how it works

C By explaining how he changed during the course of his trip
D By describing the problems of the rain forest and how they can be solved

30 Enrique and his parents have a guide so that they can learn -

F how not to lose their way in the rain forest
G about the plants and animals in the rain forest
H how to use the canopy tram correctly
J about the safety features of the canopy tram

## The Ranch Hand

 she could graze with the other horses of the Shortstop Ranch. Tess's ears pricked up, and she whinnied. "At least one of us is happy about being here," Will thought.As Will walked to the house to see what chores Ms. Slocum had for him today, Orlando, one of the ranch hands, called out a greeting.
"What's with that scowl, Will?" Orlando asked. "Why are you in such a bad mood?"
"Everybody I know is still in bed," Will answered. "What do you expect at this hour?"
"Sorry I asked," Orlando said. "If you don’t like working here, why do it?"
"Haven't you ever heard of needing money?" Will responded, his scowl darkening. "I may have to work here during my spring break, but I don't have to like it."
"Well, it doesn't do any good to sulk around like that, but suit yourself," Orlando said as he walked off, looking irritated.

Will entered the kitchen where Ms. Slocum was waiting for him. He knew he was going to be in trouble for being late. Ms. Slocum glanced at the clock, but instead of reprimanding him, she just said, "Today you and the other men will check the fences. I'm assigning the north pasture to you. Check the fence carefully for any sign of damage."

As Will started to leave the kitchen, she said, "I'm counting on you."
"Whatever," he mumbled under his breath as he walked out the door.

Will rode Tess along the fence in the north pasture and gazed at the scrubby yellow-green fields. "How boring," he thought. If he had to work on a ranch, why couldn't it be up in the mountains?
"Come on, girl," he said to Tess. "Let's get this work done so I can get out of here early. There's no way I'll miss going to the movies tonight."

Will crossed a small river that divided the ranch. The river was higher than usual as a result of the spring rains, and it took him a little longer to get across. Then he traveled down the fence line for about an hour before deciding that it was time for lunch. Just as he finished his sandwich, he felt a cold drop of rain on his neck. He decided to return to the ranch house.
"Just my luck," he said, looking at Tess. "I'll probably get drenched."

Within a few minutes the skies went dark, and it started to pour. The storm hit hard and fast. Soon Will was so wet that his hair and clothes stuck to his skin, and the sharp wind tore at his face. The trail became a ribbon of mud.

The storm's force made it hard to see, but out of the corner of his eye, Will saw something on the ground. As he moved closer, he could see it was a dripping, shivering lamb. The lamb looked tiny and weak. Will could tell it was just a few days old. He guessed that out here in the storm, without its mother, the lamb didn't stand a chance.

As Will quickly slid off his horse, a gust of wind hit him in the face. The lamb let out a small cry. Will took off his jacket and put

it around the lamb. He stroked the quivering animal, wondering what to do. He knew the other ranch hands were out there somewhere. Should he wait for one of them to find him? The downpour was growing worse, and without his jacket Will felt numb from the wind and freezing rain. Each passing minute felt like an hour.

Will tried to stay calm, but his mind was racing. He looked at the lamb and saw that its sides were heaving. Will had to do something fast.

Groaning with effort, Will picked up the lamb and laid it across Tess's broad back. He got back in the saddle and urged Tess down the trail. She struggled to keep her footing on the slippery path, getting jittery whenever lightning flashed too close.

Soon they came to the riverbank. The rain had caused the river to become fierce and rush by with tremendous speed. Will felt hopeless for a moment, but he knew he had to cross. Fearing for their lives, he looked for the biggest tree he could find to tie his rope around. Then using the rope to help keep them stable, he urged Tess into the swift-moving water. She took a step and then stopped. Will tapped her sides with his heels, and she took another slow step. The turbulent water rushed around her legs. It seemed to Will that the swirling water was growing deeper every second. He held on tightly to the rope. Step, stop. Step, stop. It became a kind of chant in Will's head. Nothing mattered except getting to the other side.

After what seemed like forever, they reached the opposite bank.
"Almost there, almost there," he repeated to himself as he rode along. When he finally saw the ranch house in the distance, he wanted to cry with relief. He was so exhausted when he arrived that he had to be helped from the saddle and into the house. Then someone took the lamb off Tess's shoulders.

As Will put on some dry clothes, he overheard Ms. Slocum tell Orlando, "I'm not that surprised. I had a feeling he'd turn out to be a fine ranch hand."

23 Will walked to the window and saw that the rain had slowed to a drizzle. His muscles aching, he walked outside. It was late, but he wanted to make sure he finished just one more task before he went home.

24 When he opened the barn door, Will saw the lamb wrapped in a blanket. He walked over and pulled the blanket more snugly around the small animal. The lamb looked up at him, sleepy and content.

31 Why is Will at Shortstop Ranch?
A He wants to learn about ranching.
B He likes helping Ms. Slocum.
C He enjoys working with Orlando.
D He needs to make money.

32 Which sentence from the story shows that Will doesn't like his job at the ranch?

F He knew he was going to be in trouble for being late.
G "Let's get this work done so I can get out of here early."
H "Just my luck," he said, looking at Tess.
J After what seemed like forever, they reached the opposite bank.

33 Which sentence from the story best shows that Will is more concerned with the lamb's well-being than with his own?

A The lamb looked tiny and weak.
B Will took off his jacket and put it around the lamb.

C He stroked the quivering animal, wondering what to do.
D He looked at the lamb and saw that its sides were heaving.

34 The author organizes this story by -
F describing what is needed to be a good ranch hand
G stating reasons why Will does not want to work at the ranch

H explaining how a boy's feelings change over time

J listing each job that Will needs to perform

35 It is easier for Will to cross the river the first time because -

A he doesn't have as much to carry
B the storm has not yet begun
C he already has a rope tied to a tree
D his horse isn't tired yet

36 Orlando is irritated in paragraph 7 because -
F Ms. Slocum favors Will
G Will won't help him with his work
H Will has a poor attitude
J he is in a hurry to check fences

37 Why are paragraphs 4 through 11 important to the story?

A They show how Will feels about working on the ranch.
B They explain what Will's job will be that day.
C They tell the reader why Ms. Slocum hired Will.

D They show why Will must work at the ranch.

38 Why is the description of the river in paragraph 12 important to the story?

F It shows how wide the river is.
G It explains the importance of the river to the ranch.

H It describes how cold the water in the river is.

J It suggests that the river could become dangerous.

39 How does Will's attitude change at the end of the story?

A He decides that he wants to work at the ranch during the summer.
B He realizes that being a ranch hand can be a rewarding job.
C He knows that he is not a good ranch hand.

D He thinks that working on a ranch is a dangerous job.

40 Which of these is the best summary of the story?

F Will is unhappy that he must work as a ranch hand. During a storm Will finds a lamb and decides to help it. He crosses a flooding river and is able to save the lamb. Afterward he has a new appreciation for his job.

G One day Will comes to work in a very bad mood. He is rude to Orlando and Ms. Slocum. He thinks that checking the fence is boring. He can't wait to go to the movies with his friends.

H Will doesn't like working at a ranch during spring break. He comes to work late, but he doesn't get into trouble. Ms. Slocum tells him that he should go to the north pasture and check the fences for damage.

J Will works on Ms. Slocum's ranch as a ranch hand. A rainstorm hits as he is out checking the fences. The rain causes the river Will must cross to become very dangerous.

41 Why does Will look for a big tree by the river?
A To keep Tess calm in the storm
B To help him stay dry
C To show the other ranch hands where to cross

D To stay safe as he crosses the river

42 At the end of the story, the reader can tell that Ms. Slocum -

F is surprised by the way Orlando treats Will

G has known Will a long time
$\mathbf{H}$ is ready to fire Will if he doesn't check on the lamb
$\mathbf{J}$ thinks that Will has the qualities of a good ranch hand

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# MATHEMATICS 

## ADMINISTERED <br> IN APRIL

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## Mathematics Chart

| LENGTH |  |
| :---: | :---: |
| Metric | Customary |
| 1 kilometer = 1000 meters | 1 mile $=1760$ yards |
| 1 meter = 100 centimeters | $1 \mathrm{mile}=5280$ feet |
| 1 centimeter = 10 millimeters | 1 yard $=3$ feet |
|  | 1 foot = 12 inches |
| CAPACITY AND VOLUME |  |
| Metric | Customary |
| 1 liter = 1000 milliliters | 1 gallon $=4$ quarts |
|  | 1 gallon $=128$ ounces |
|  | 1 quart $=2$ pints |
|  | 1 pint $=2$ cups |
|  | 1 cup $=8$ ounces |
| MASS AND WEIGHT |  |
| Metric | Customary |
| 1 kilogram = 1000 grams | 1 ton = 2000 pounds |
| 1 gram $=1000$ milligrams | 1 pound = 16 ounces |
| TIME |  |
| 1 year = 365 days |  |
| 1 year = 12 months |  |
| 1 year = 52 weeks |  |
| 1 week = 7 days |  |
| 1 day $=24$ hours |  |
| 1 hour $=60$ minutes |  |
| 1 minute $=60$ seconds |  |

Metric and customary rulers can be found on the separate Mathematics Chart.

## Mathematics Chart

| Perimeter | square | $P=4 s$ |
| :--- | :--- | :--- |
|  | rectangle | $P=2 l+2 w \quad$ or $\quad P=2(l+w)$ |
| Area | square | $A=s^{2}$ |
|  | rectangle | $A=l w \quad$ or $\quad A=b h$ |
|  | triangle | $A=\frac{1}{2} b h \quad$ or $\quad A=\frac{b h}{2}$ |

## DIRECTIONS

Read each question. Then fill in the correct answer on your answer document. If a correct answer is not here, mark the letter for "Not here."

## SAMPLE A

Which digit is in the thousands place in the number $4,861,392$ ?

A 6
B 4
C 1
D Not here

## SAMPLE B

Joey has 8 books. Roberto has twice as many books as Joey has. How many books does Roberto have?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

1 The graph below represents the depth of snow in Mountain View during a snowstorm.


Which table matches the data in the graph?
Snowstorm
A

| Number of <br> Hours | Depth of Snow <br> (inches) |
| :---: | :---: |
| 1 | 2 |
| 3 | 4 |
| 4 | 6 |

Snowstorm

B \begin{tabular}{|c|c|}

\hline | Number of |
| :---: |
| Hours | \& | Depth of Snow |
| :---: |
| (inches) | <br>

\hline 2 \& 1 <br>
\hline 4 \& 2 <br>
\hline 6 \& 4 <br>
\hline
\end{tabular}

B
C

| Number of <br> Hours | Depth of Snow <br> (inches) |
| :---: | :---: |
| 2 | 2 |
| 4 | 3 |
| 6 | 4 |

Snowstorm

Snowstorm

| Number of <br> Hours | Depth of Snow <br> (inches) |
| :---: | :---: |
| 2 | 1 |
| 4 | 3 |
| 6 | 4 |

2 Which statement about a cube is true?

F It has exactly 4 vertices.
G It has exactly 8 edges.
H It has exactly 6 faces.
J It has exactly 6 edges.

3 Mr. Vale buys about 14.7 gallons of gas for his car every week. About how many gallons of gas does he buy in 4 weeks?

A 15 gallons
B 60 gallons
C 80 gallons
D 105 gallons

4 Charlene read this information about finding the temperature outside by counting the number of cricket chirps.

To find the temperature, first count the number of chirps a cricket makes during a 1-minute period. Subtract 50 from that number and divide the difference by 4 . Then add 50 to the quotient. This should give you the temperature outside in degrees Fahrenheit.

Charlene decided to test this theory and counted 162 cricket chirps in one minute. Based on the information in the box, what should the outside temperature be in degrees Fahrenheit?

F $93^{\circ} \mathrm{F}$
G $78^{\circ} \mathrm{F}$
H $33^{\circ} \mathrm{F}$
J $42^{\circ} \mathrm{F}$

5 Izzy's birthday falls on a date in April that is a prime number. Which could be the date of his birthday?

A April 29
B April 27
C April 15
D April 9

6 The table below shows the number of bills of each value that Eunice had in her wallet.

Bills in Eunice's Wallet

| Value of Bill | Number of Bills |
| :---: | :---: |
| $\$ 1$ | 7 |
| $\$ 5$ | 4 |
| $\$ 10$ | 2 |
| $\$ 20$ | 1 |

In all, what fraction of the number of bills in Eunice's wallet were $\$ 5$ or $\$ 20$ bills?

F $\frac{5}{28}$
G $\frac{3}{14}$
H $\frac{5}{14}$
J $\frac{11}{14}$

7 Ben's family is going to see a movie. Admission is $\$ 3$ for children and $\$ 5$ for adults. Based on this information, which statement is true?

A The admission cost is the same for 3 children as for 3 adults.
B The admission cost is the same for 5 children as for 3 adults.
C The admission cost is the same for 3 children as for 5 adults.
D The admission cost is the same for 5 children as for 5 adults.

8 A chili cook-off started at 9:30 A.M. All the chili had finished cooking 3 hours 40 minutes later. Which clock shows the time at which all the chili had finished cooking?


9 Look at the figure below made up of 1-unit cubes.


What is the volume of the figure?
A 16 cubic units
B 40 cubic units
C 80 cubic units
D 160 cubic units

10 The drawing below represents a parking lot at the mall.


Use the ruler on the Mathematics Chart to measure the dimensions of the parking lot to the nearest tenth of a centimeter. Which is closest to the perimeter of the actual parking lot in meters?

F 440 m
G 300 m
H 225 m
J 220 m

11 During a recent year the state of Washington produced between $5,700,000,000$ and $5,800,000,000$ pounds of apples. Which could be the number of pounds of apples the state produced during that year?

A $5,794,046 \mathrm{lb}$
B 5,897, 043 lb
C 5,819,042,046 lb
D $5,729,000,123 \mathrm{lb}$

13 Henry made a long-distance phone call that lasted 12 minutes. The call cost $\$ 0.35$ per minute. If there was an extra charge of $\$ 1.50$, which number sentence shows how much Henry's phone call cost?

A $(\$ 0.35 \times 12)+\$ 1.50=$
B $(\$ 0.35+12)+\$ 1.50=$
C $(\$ 0.35 \times 12) \times \$ 1.50=$
D $(\$ 0.35+12) \times \$ 1.50=$

12 What is the prime factorization of 100 ?
F $\quad 2 \times 2 \times 5 \times 5$
G $2 \times 5 \times 10$
H $2 \times 2 \times 25$
J $4 \times 5 \times 5$

14 Look at the pattern of numbers below.
$28,84,252,756$
Which describes the rule for determining the last 3 numbers shown in this pattern?
F Each number is 56 more than the previous number.
G Each number is 64 more than the previous number.
H Each number is 3 times the previous number.
J Each number is 4 times the previous number.

15 All the sides of parallelogram $P Q R S$ are congruent.


Which of the following statements about parallelogram $P Q R S$ appears to be true?
A $\overline{P Q}$ is parallel to $\overline{S R}$.
B $\overline{P Q}$ is parallel to $\overline{Q R}$.
C $\overline{S R}$ is perpendicular to $\overline{Q R}$.
D $\overline{S P}$ is perpendicular to $\overline{Q R}$.

16 The coordinate grid below represents a lake.


A canoe is at point $W$ on the lake. A sailboat that is not shown on the grid is 4 units east and 2 units south of the canoe. What are the sailboat's coordinates?

F $(9,7)$
G $(9,3)$
H $(5,5)$
J $(1,7)$

17 Which of these does NOT show a single reflection?
A

C

B

D


18 Abel ran a 1-kilometer race. When he was halfway to the finish line, how many meters did he have left to run?

F $\quad 50 \mathrm{~m}$
G $\quad 100 \mathrm{~m}$
H $1,000 \mathrm{~m}$
J 500 m

19 The fifth grade is holding an election for a student council representative. Only 30 students have voted so far. The results are shown in the table below.

## Student Council Election

| Nominated <br> Student | Number of <br> Votes |
| :--- | :---: |
| Mike | 13 |
| Desirée | 8 |
| Joyce | 6 |
| Brandon | 3 |

Based on these results, which is the most reasonable prediction of the number of votes Desirée will have received when 60 students have voted?

A 8
B 24
C 16
D 12

20 How many ounces does a $\frac{1}{4}$-pound hamburger patty weigh?

F 4 oz
G 8 oz
H 12 oz
J 16 oz

21 The table below shows the salad menu at a restaurant.
Salad Menu

| Type of Salad | Type of Dressing |
| :--- | :--- |
| Garden | Ranch |
| Chef | Thousand Island |
| Chicken | French |
| Tuna | Italian |
| Taco | Honey mustard |

From how many different combinations of 1 type of salad and 1 type of dressing can a customer choose?
Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

22 Vicki took the same amount of time to walk to school each day last week. The table below shows the times she left her house and arrived at school on 4 days.

## Walking to School

|  | Monday | Tuesday | Wednesday | Thursday |
| :--- | :---: | :---: | :---: | :---: |
| Time Left Home | 6:52 A.M. | 7:03 A.M. | 6:43 A.M. | 6:58 A.M. |
| Time Arrived at School | 7:16 A.M. | 7:27 A.M. | 7:07 A.M. | 7:22 A.M. |

What is the relationship between the time Vicki left home and the time she arrived at school each day?
F She arrived at school 44 minutes after she left home.
G She arrived at school 11 minutes after she left home.
H She arrived at school 24 minutes after she left home.
J She arrived at school 36 minutes after she left home.

23 The graph shows the depth of 5 lakes.

## Lake Depths



What is the median depth of these 5 lakes?
A 50 ft
B 60 ft
C 80 ft
D 90 ft

24 Look at the pattern of numbers below.

$$
6, \ldots, 20,27,34
$$

Which expression could be used to find the missing number in the pattern?

F $(6+34) \div 2$
G $(6 \times 20) \div 2$
H $(20-7)+6$
J $(27-20)+6$

25 The students in fifth grade voted for their favorite brand of toothpaste. Brand Z received twice as many votes as Brand X. Brand Y received 3 times as many votes as Brand X. Which of the following tables accurately represents the results of the survey?

Favorite Toothpaste
A

| Brand of <br> Toothpaste | Number of <br> Votes |
| :---: | :---: |
| X | 30 |
| Y | 60 |
| Z | 90 |

Favorite Toothpaste
B

| Brand of <br> Toothpaste | Number of <br> Votes |
| :---: | :---: |
| X | 60 |
| Y | 90 |
| Z | 30 |

Favorite Toothpaste

C \begin{tabular}{|c|c|}

\hline | Brand of |
| :---: |
| Toothpaste | \& | Number of |
| :---: |
| Votes | <br>

\hline X \& 30 <br>
\hline Y \& 90 <br>
\hline Z \& 60 <br>
\hline
\end{tabular}

Favorite Toothpaste

| Brand of <br> Toothpaste | Number of <br> Votes |
| :---: | :---: |
| X | 90 |
| Y | 30 |
| Z | 60 |

26 Lenny bought as many crickets as possible with $\$ 4.20$ to feed to his lizard. Crickets cost $10 ¢$ each or $\$ 1.00$ per dozen. How many crickets did Lenny buy?

F 50
G 49
H 62
J 46

27 The table below shows the colors of the houses on Seth's street and the fraction of the total number of houses painted each color.

Houses on Seth's Street

| Color <br> Painted | Fraction Painted <br> That Color |
| :---: | :---: |
| White | $\frac{1}{3}$ |
| Tan | $\frac{1}{6}$ |
| Gray | $\frac{1}{18}$ |
| Yellow | $\frac{4}{9}$ |

Which color was used for the smallest fraction of the houses on Seth's street?

A White
B Tan
C Gray
D Yellow

28 Which single transformation is shown below?


F Translation
G Reflection
H Rotation
J Not here

29 Mrs. Pickens is choosing glazes for pottery. Her choices are shown in the table below.
Pottery Glazes

| Color | Texture | Polish |
| :--- | :--- | :--- |
| Blue | Smooth | Shiny |
| Green | Rough | Dull |
| Red |  |  |

If Mrs. Pickens chooses a color, a texture, and a polish for each pottery glaze, what is the total number of combinations of glazes she can make?

A 3
B 7
C 12
D 18

30 Which of the following is equal to $2 \frac{1}{2}$ gallons?
F 6 quarts
G 10 quarts
H 20 cups
J 40 pints

31 The picture below shows a box that is filled with 1-inch cubes.


What is the total volume of the box?

A 120 cubic inches
B 100 cubic inches
C 74 cubic inches
D 50 cubic inches

32 Kathy gave her friends clues about a number she was thinking of. She told them that when her number is doubled and added to 10 , the result is 58 . What is the number Kathy was thinking of?

F 34
G 126
H 24
J 96

33 Lorrie won 384 tennis matches during 8 years. She won the same number of matches each year. How many matches did Lorrie win each year?

A 38
B 48
C 43
D 33

34 Ellie is playing a game with the set of cards shown below.


She takes one card from this set without looking. What is the probability that the card will have either a triangle or a circle on it?

F $\quad \frac{3}{5}$
G $\quad \frac{3}{8}$
H $\frac{5}{8}$
J $\frac{1}{4}$

35 The table below shows a pattern of factors and products.

## Pattern

| Factors | Product |
| :---: | :---: |
| $1 \times 1$ | 1 |
| $11 \times 11$ | 121 |
| $111 \times 111$ | 12321 |
| $1111 \times 1111$ | 1234321 |
| $11111 \times 11111$ |  |

If the pattern continues, which should be the middle digit of the next product?

A 1
B 4
C 3
D 5

36 The factor tree for the number 36 is shown below.


According to this factor tree, which of the following statements is true?

F The numbers 2 and 3 are prime.
G The only prime factor of the number 36 is 3 .

H The number 9 is prime.
J The product of 2 prime numbers is always prime.

37 Cherie has 4 different types of ribbon. The color and width of each type of ribbon are listed in the table below.

Ribbon

| Color | Width |
| :--- | :--- |
| Red | $\frac{4}{5}$ inch |
| Blue | $\frac{2}{3}$ inch |
| Green | $\frac{1}{2}$ inch |
| Yellow | $\frac{3}{4}$ inch |

Cherie needs ribbon that is $\frac{12}{16}$ inch wide.
Which color of ribbon has an equivalent width?

A Red
B Blue
C Green
D Yellow

38 Karina planted flowers in her yard. The table below shows the height of 1 flower during a 2 -week period.

Flower Heights

| Date | Height <br> (centimeters) |
| :---: | :---: |
| April 1 | 38.5 |
| April 8 | 54.9 |
| April 15 | 58.8 |

Which of the following represents the height in centimeters of Karina's flower on April 15?

F Fifty-eight and eight hundredths
G Fifty-eight and eight tenths
H Five hundred eighty-eight
J Five hundred and eight tenths

40 The Bryant family has 4 dogs. Lady is 7 years old and is 3 years younger than Rex. Rex is 4 years older than Max, and Max is 3 years older than Daisy. Which lists the dogs in order from oldest to youngest?

F Lady, Rex, Max, Daisy
G Rex, Max, Daisy, Lady
H Rex, Lady, Max, Daisy
J Daisy, Lady, Max, Rex

39 The model below shows $\frac{15}{100}$ shaded.


Which decimal is equivalent to $\frac{15}{100}$ ?
A 1.15
B 1.5
C 0.015
D 0.15

41 Look at the coordinate grid below.


Which of the following points is closest to $(1,6)$ ?
A Point $K$
B Point $L$
C Point $M$
D Point $N$

42 An equilateral triangle is shown below.


Which statement about the triangle is true?
F The triangle has 2 sides that form a right angle.

G All the triangle's sides are the same length.

H None of the triangle's sides are the same length.

J The triangle has only 2 sides that are congruent.

43 Admission to a basketball tournament is $\$ 7$ per person. If 179 people pay to attend the tournament, how much money will be collected for admission?

A $\$ 956$
B \$1,193
C $\$ 1,253$
D $\$ 793$

44 The table shows the years in which 4 famous mathematicians were born.
Famous Mathematicians

| Name | Year of Birth |
| :--- | :---: |
| Galileo Galilei | 1564 |
| Isaac Newton | 1642 |
| Carl Gauss | 1777 |
| John Venn | 1834 |

According to the table, how many years later was John Venn born than Galileo Galilei?
F 330 years
G 270 years
H 398 years
J 192 years

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## SCIENCE

## ADMINISTERED IN APRIL

## DIRECTIONS

Read each question and choose the best answer. Then fill in the correct answer on your answer document.

SAMPLE A

| Objects That <br> Conduct Heat | Objects That Do <br> Not Conduct Heat |
| :--- | :---: |
| Silver spoon | Plastic fork |
| Copper pan | Glass block |
| Iron nail | Wooden handle |
| Gold ring | $? ? ?$ |

The chart shows some objects that conduct heat and some that do not conduct heat. Which of these would complete the column of objects that do not conduct heat?

A Electrical wire
B Water
C Eraser
D Horseshoe magnet

## Plant Growth vs. Time



The graph shows how much a plant grew over four days. According to the graph, how many centimeters did the plant grow between Day 1 and Day 4? Record and bubble in your answer on the answer document.


1 Which part of this life cycle shows the adult organism?

A Q
B $R$
C S
D T

2 What two forms of energy does a flame from a burning candle release?

F Electrical and mechanical
G Chemical and electrical
H Light and heat
J Heat and nuclear

| Brand <br> of Battery | Time <br> (minutes) |
| :---: | :---: |
| L | 350 |
| M | 460 |
| N | 410 |
| O | 380 |

3 The table indicates the amount of time that four different brands of batteries worked in a flashlight. Which of the following statements is supported by this information?

A Brand L caused the light to shine farther than the other brands tested.

B Brand M lasted longer than the other brands tested.

C Brand N gave off a stronger light than the other brands tested.

D Brand O was more expensive than the other brands tested.

4 Which of the following characteristics of a field mouse is most likely inherited from its parents?

F Brown fur
G Torn ear
H Scar on its leg
J Chipped tooth

## Science Activity

Students mixed a spoonful of vinegar with a small amount of baking soda in a bowl. They wrote a description of what they observed.

5 Which of these should the students avoid while doing this activity?

A Using a metal teaspoon
B Using a plastic bowl
C Stirring the vinegar
D Tasting the mixture

Metamorphosis: a change in the shape or characteristics of an animal's body as it grows

6 Which diagram shows an example of metamorphosis?


7 A company collects cans for recycling. Some cans are made of aluminum, and some are made of iron. Which of the following is the best way to separate the two types of cans?

A Heat the iron cans until they melt
B Use scissors to cut the cans
C Use a magnet to pick up the iron cans
D Float the cans in water


8 Which organism in this food chain is a producer?
F Fish
G Grass
H Grasshopper
J Hawk

9 Some students were studying properties of water. One student placed a cup containing 80 mL of water in a freezer. Another student placed an identical cup containing 40 mL of water in a different freezer. Which of the following will be the same for both cups of water?

A The temperature at which the water freezes

B The mass of the frozen water
C The time it takes the water to freeze
D The volume of the frozen water

10 A plant that was kept inside a house all winter was placed outside in full sunlight in the spring. The leaves of this plant soon died, and new leaves grew in their place. The new leaves were greener and thicker. Which hypothesis is best supported by this information?

F Plants can learn to stay healthy.
G Plants can adapt to some changes.
H Plants can change leaves at any time.
J Plants can produce weather changes.

Characteristics of Four Habitats

| Habitat | Climate | Surface <br> Features | Main Plant Types | Plant Eater <br> Found in Habitat |
| :---: | :---: | :--- | :--- | :--- |
| Q | Hot | Sand dunes | Cacti, grasses | Field mouse |
| R | Cool | Hills | Grains, thistles | Rabbit |
| S | Cool | Mountains | Trees, blueberry bushes | Beaver |
| T | Cold | Snowdrifts | Algae, mosses | Lemming |

## Black Bear Needs

| Habitat | Forests and woodlands |
| :--- | :--- |
| Food | Nuts, fruits, young sprouts, insects, <br> young mammals, and livestock |
| Space | 3 to 90 square kilometers |

11 The top chart shows some characteristics of four habitats. In which habitat would a black bear most likely be found?

A Q
B R
C S
D T

12 Which of these is a renewable resource?

F Tree
G Coal
H Oil
J Wind


13 A student holds a note card behind a jar of water. Which of the following best explains why the part of the note card seen through the jar looks different from the rest of the note card?

A The jar reflects light hitting its surface.
B The water absorbs light hitting its surface.

C The jar scatters light passing through it.
D The water bends light passing through it.

Use the information below and your knowledge of science to help you answer questions 14-17.

## Catching Waves

Africa is home to a frog that catches insects in a very unusual way. This frog, called the African clawed frog, has moist skin and is found in murky ponds and other wet environments.

When the dry season starts, the frog burrows into the mud to remain moist. It stays in the burrow without eating or moving until rainfall returns. This may take up to a year.

This frog cannot see well in the water or in the dark. Still, it is very successful at catching insects.

When an insect lands on the surface of a pond, waves are sent across the water. The African clawed frog has many tiny detectors that sense where the waves are coming from. Many scientists believe that this frog can tell the size of the insect making the waves. And when two or more waves are made at the same time, it can tell exactly where each wave is coming from.

Was that a wave? Supper's ready!


14 Students placed some frogs in a tank to study their behavior. What should the students do for safety reasons after feeding the frogs?

F Wash the floor with soap and water
G Wash their hands with soap and water
H Rinse the frog tank with cool water
J Rinse the frogs with cool water

15 Which of the following is an inherited trait in African clawed frogs?

A The location of wave detectors on the frogs
B The location of the frogs in a pond
C The number of insects eaten by the frogs in an hour

D The number of times the frogs look for insects in an hour

16 The African clawed frog has many adaptations that help it survive. Which of these adaptations helps it survive changes in its environment?

F The ability to see color
G The ability to detect waves
H The ability to burrow
J The ability to eat

17 An insect that produces waves in the water also produces waves in the air. What can these air vibrations produce?

A Sound
B Light
C Oxygen
D Carbon


18 This diagram shows some stages in the termite life cycle. Which of these is supported by the information in the diagram?

F Some nymphs have wings.
G Some larvae lay eggs.
H Eggs develop into three kinds of larvae.
J The queen produces the eggs.


19 A student plans to make this lightbulb glow. All of the following objects can be used to complete the circuit EXCEPT -

A a copper penny
B a plastic comb
C a metal clip
D an iron nail


20 The graph shows air temperatures taken at noon each day for a week. What is the difference between the highest and the lowest temperature? Record and bubble in your answer to the nearest degree on the answer document.

21 In which of these ways can volcanoes help build up new land?

A By adding heat to Earth's surface
B By adding gases to the atmosphere
C By adding lava to Earth's surface
D By adding water vapor to the atmosphere


22 Before a field trip to a cave, a science class studied this picture. Which two features of this cave system were most likely formed by the slow buildup of minerals from water drops?

F Pool of water and trench
G Pool of water and stalagmite
H Stalactite and trench
J Stalagmite and stalactite

23 Fossil fuels formed over a long period of time because heat and pressure were applied to -

A carbon filtered through limestone
B organisms buried in the ground
C bacteria on top of the mud
D nitrogen mixed in the water


24 The rock column above shows the layers in a rock formation. The three diagrams above show the positions of fossils in different rock layers. According to this information, which fossil is the youngest?


25 Which of these causes day and night on Earth?

A Earth orbiting the sun
B The moon orbiting Earth
C Earth rotating on its axis
D The moon blocking sunlight

Landfill X


Landfill Y


26 The diagram shows landfills where two communities put garbage. What is the advantage of Landfill Y?
F The waste lasts longer.
G The groundwater is safer.
H The soil contains more nutrients.
J The trucks move faster.

27 A teaspoon of clean, dry sand is added to a cup of warm saltwater. What is most likely to happen after the mixture is stirred and then placed on a table for five minutes?

A The amount of water will increase.
B The salt will float to the top.
C The sand will settle to the bottom.
D The cup will heat up.

28 Which of these supplies the energy that drives the water cycle?

F The sun
G The planets
H The oceans
J The moon


29 The picture shows two bowling balls being held in position with four ropes. The box will be flipped upward if which rope is cut?

A W
B X
C Y
D Z


30 The picture shows a kind of glacier that can be many meters thick. In this landscape, which of the following is most directly affected by this kind of glacier?

F The average height of plants on the mountainside

G The shape of clouds that form above the glacier

H The average mass of trees near the lake
J The shape of the valley between the mountains


31 This model can be used to show how the moon moves around Earth. This model also shows all of the following EXCEPT -

A the amount of light Earth reflects
B the land areas of Earth and the moon
C how the moon makes a revolution
D how Earth and the moon compare in size

| Paper Towel <br> Brand | Number of <br> Sheets Used | Mass of Dry <br> Paper Towel <br> $(\mathrm{g})$ | Mass of Wet <br> Paper Towel <br> $(\mathrm{g})$ |
| :---: | :---: | :---: | :---: |
| W | 2 | 4 | 56 |
| X | 3 | 4 | 62 |
| Y | 3 | 4 | 70 |
| Z | 2 | 4 | 38 |

32 Equal masses of paper towel were used to soak up water from a cup. Which question can be answered from the information above?

F Which paper towel is the best buy?
G Which paper towel is most absorbent?
H Which paper towel is the most colorful?
J Which paper towel is safest for the environment?


33 A diagram of an oak tree is shown above. What is the height of the tree?

A 9 meters
B 11 meters
C 18 meters
D 22 meters

34 Which of these can cause sharp, rough mountains to become rounded and smooth over time?

F Wind and rain
G The sun's rays
H Light and darkness
J Earth's magnetic field


35 This laboratory symbol shows that when performing an experiment, students need to -

A avoid electricity
B protect clothing
C keep away from food
D protect equipment


36 Which of the following does the information in the picture support?
F Candles cause fire.
G Corks put out fire.
H Fire warms glass.
J Fire needs air.

$$
\text { Grass } \rightarrow \text { Mouse } \rightarrow \text { Snake } \rightarrow \text { Hawk }
$$

37 In the diagram above, which of the following is represented?

A Water evaporating
B Energy being transferred
C The moon changing phase
D Light being reflected

38 A balance would be the best tool for measuring which of the following?

F The texture of soil
G The length of a stick
H The mass of a rock
J The color of a leaf


39 All of the characteristics listed above are useful for gathering food EXCEPT -
A 1
B 2
C 3
D 4


40 The picture shows the label on a carton of orange juice. Which of these is supported by the information on the label?

F Orange juice turns all vitamins into vitamin C.

G Orange juice provides vitamin C to the body.
H Orange juice removes vitamin C from the body.
J Orange juice causes the body to need vitamin C.

TARS GRADE 5 2006

