

Spring 2025

GRADE 6

**ENGLISH LANGUAGE ARTS/
LITERACY**

Today you will read an excerpt from “Maple Madness” and the poem “Keep Going.” Then you will answer questions and write a response.

from Maple Madness

by Julienne Guillaume

- 1 “Jude! Come quick, please. We need you to drop defoamer into the sap, or it will boil over.”
- 2 They need me? I guess I’ll just go for a minute.
- 3 When I walk through the doorway, a burst of sweet maple whooshes over me. The taste of candy particles lands on my lips. The fire’s growl and the roar of boiling sap rumble through me like storms in my video game *Poseidon’s World*.
- 4 Mimi tosses me a small plastic bottle. I squirt a few drops of fat into the sap, where the foam is inching toward the top of the pan. The foam dissipates almost instantly. Quickly, I add drops to each pan before any sap boils over. This is actually a little bit like a video game. Level A, complete.
- 5 “The sap’s coming in good!” Gran calls out to Mimi. Right. You have to make sure the sap keeps flowing in while you’ve got the fire raging.
- 6 Hands inside thick work gloves, Mimi loads more logs into the stove and uses another hoe—this one blackened—to shift them around. The fire burns furiously below the metal pans of sap.
- 7 “Jude!” calls Mimi. “Grab the skimmer! We need to get rid of the clumps.”
- 8 The skimmer’s handle feels familiar in my hands. I glide the mesh scoop across the sap, collecting foam and goo. I bang the skimmer against a bucket on the floor. Level B, complete.
- 9 Then, out of nowhere, there’s Mr. Jackson! Opening the sugarhouse door and calling Gran.
- 10 “I need help,” he yells to her. “Just for a second. . . .” He motions to Gran and Mimi. “Both of you come. Jude can stay here and watch the boil.”
- 11 Then Mr. Jackson and Gran go. Mimi slams shut the stove doors and dashes toward the exit. She calls, “Jude, you know what to do.”
- 12 I do?
- 13 Suddenly, I’m alone in the sugarhouse. My mind races through the steps, as if programming a video game. The sap is flowing into the pans. Good. The vats of

sweet liquid are boiling. Good. The fire has just been stoked. Nothing else to do, right?

- 14 I scamper to the front pan with the densest sap, the sap that's been boiling the longest. When Gran and Mimi return, they'll see if this sap has boiled to syrup. Then they'll draw it off.
- 15 *There are two kinds of sugarers, Gran always says. Those that have scorched a pan, and those that are liars.* But Gran and Mimi haven't scorched a pan yet.
- 16 I peek at the thermometer. Seven. Seven degrees above boiling. Yikes!
- 17 I grab the skimmer and scoop liquid from the pan. A thick drip spreads as it dribbles back into the pan. It's sheeting. This looks like syrup.
- 18 Familiar tools lie scattered next to the pan's spout. I snag the metal cup, slide it under the spout, and open the valve. Thick, dark liquid rolls through, but almost too slowly. I drop the hydrometer into the cup.
- 19 It floats! The hydrometer's red mark is a full quarter inch above the top of the syrup—too high. Gran and Mimi better get back. This syrup is ready. Soon we'll have burnt maple candy, a scorched pan, and maybe even the end of the sugaring season.
- 20 I peek out the window. No Gran. No Mimi. There's no time left.
- 21 In a series of movements, I seize a bucket, slip it beneath the spout, and open the valve. Chestnut-colored syrup flows in and fills the bucket. I close the spout, scoop a spoonful of syrup off the top, blow and wait. Finally, I pour the syrup over my tongue, and a rush of hot liquid sweetness fills my mouth. Perfection.
- 22 "Quick!" yells Gran as she and Mimi rush back in. "We mustn't ruin this batch. We can't scorch the pan!"
- 23 "Don't worry, Gran," I say. "I drew off the syrup just in time." Level C, complete.
- 24 "Thank goodness!"
- 25 "We were gone longer than we thought with that stubborn lamb," says Mimi. "Thank you, Jude! You saved our sugaring season."
- 26 Gran pipes in, "That's what we tell our friends. Our grandson is wonderfully competent. Computer programmer and farmer both!"
- 27 I saved the season? Their grandson is wonderfully competent? . . .
- 28 Mimi tests the syrup from my bucket. "Just right!" She looks me in the eyes and nods. . . .

- 29 I shake my head. “. . . Not after I messed up the latch on [Mr. Jackson’s] gate last summer and let the goats into his flower beds. He lost his roses for the farmers’ market.” I look up at Gran. “I guess I’m not as competent as you tell your friends.”
- 30 “Jude, being competent doesn’t mean you never make mistakes,” says Mimi.
- 31 “Are you still thinking about last summer?” asks Gran. “It was an accident, Jude. You know how to work the latch now.”
- 32 “But Mr. Jackson’s flowers?”
- 33 “He lost the blooms from a handful of rose bushes,” says Mimi. “But many were OK. He still had some flowers for the market.”
- 34 I gaze out the window. . . . My attention drifts to the clouds, where formations are shifting. Suddenly, there’s a jug of maple syrup, floating in the sky.
- 35 . . . My mind skims over the day. . . . All the things I know how to do. “Then I can start programming my next video game: *Maple Madness!*”

From “Maple Madness” by Julienne Guillaume, Cricket Magazine, March 2024. Cricket Media, Inc. Used by permission.

1. This question has two parts.

Part A

How does the author develop the narrator’s point of view in the excerpt from “Maple Madness”?

- A. By emphasizing Jude’s regret for his past mistakes
- B. By revealing Jude’s thoughts while he works with the sap
- C. By showing how Gran and Mimi feel about Jude’s actions
- D. By explaining Gran and Mimi’s gratitude for Jude’s help in saving the sap

Part B

Which sentence from the story **best** supports the answer in Part A?

- A. “The skimmer’s handle feels familiar in my hands.” (paragraph 8)
- B. “ ‘Thank you, Jude! You saved our sugaring season.’ ” (paragraph 25)
- C. “ ‘Our grandson is wonderfully competent.’ ” (paragraph 26)
- D. “ ‘Not after I messed up the latch on [Mr. Jackson’s] gate last summer and let the goats into his flower beds.’ ” (paragraph 29)

2. This question has two parts.

Part A

What is the meaning of the word scorched as it is used in paragraph 15 of the excerpt from “Maple Madness”?

- A. Burned
- B. Dropped
- C. Ruined
- D. Spilled

Part B

Which phrase from paragraph 14 or from paragraph 15 **best** supports the answer to Part A?

- A. “I scamper to the front pan”
- B. “the sap that’s been boiling the longest”
- C. “Then they’ll draw it off”
- D. “*those that are liars*”

3. This question has two parts.

Part A

How does Jude change by the end of the excerpt from “Maple Madness”?

- A. He learns to trust in his own abilities.
- B. He begins to dwell on his past mistakes.
- C. He starts to enjoy his time in the sugarhouse.
- D. He becomes more interested in the sugaring process.

Part B

Which sentence from the story **best** supports the answer to Part A?

- A. “The hydrometer’s red mark is a full quarter inch above the top of the syrup—too high.” (paragraph 19)
- B. “ ‘I guess I’m not as competent as you tell your friends.’ ” (paragraph 29)
- C. “Suddenly, there’s a jug of maple syrup, floating in the sky.” (paragraph 34)
- D. “ ‘Then I can start programming my next video game: *Maple Madness!*’ ” (paragraph 35)

Keep Going

by Edgar A. Guest

When things go wrong, as they sometimes will,
And the road you're trudging seems all uphill,
When you're feeling low and wonder why
And you want to smile, but you have to sigh;
5 When care is pressing you down a bit,
Rest if you must, but don't you quit.

Life is strange with its twists and turns,
As every one of us sometimes learns.
And many a failure turns about
10 When he might have won had he stuck it out;
Don't give up though the pace seems slow,
You may succeed with another go.

Often the goal is nearer than
It seems to a faint and faltering man.
15 Often the struggler has given up
When he might have captured the victor's cup,
And he learned too late when the night slipped down
How close he was to the golden crown.

Success is failure turned inside out,
20 The silver tint of the clouds of doubt.
And you never can tell just how close you are,
It may be near when it seems afar;
So stick to the fight when you're hardest hit
It's when things seem worst that you mustn't quit.

"Keep Going" by Edgar A. Guest—Public Domain

4. This question has two parts.

Part A

Read lines 19 and 20 of the poem “Keep Going.”

Success is failure turned inside out,
The silver tint of the clouds of doubt.

These lines contribute to the meaning of the poem by suggesting that —

- A. uncertainty can feel overwhelming
- B. confusion appears throughout life like storms
- C. experiencing setbacks is a part of reaching goals
- D. accomplishment can lead to financial rewards

Part B

Which word has the same connotation as silver in line 20?

- A. Aged
- B. Noticeable
- C. Metallic
- D. Vast

5. This question has two parts.

Part A

How do the excerpt from “Maple Madness” and the poem “Keep Going” address the topic of overcoming challenges?

- A. Jude works with his family, whereas the poem’s speaker focuses on working alone.
- B. Jude uses self-reflection, whereas the poem’s speaker encourages looking outward.
- C. Jude gets inspiration from his family, whereas the poem’s speaker gets motivation from nature.
- D. Jude relies on quick problem-solving, whereas the poem’s speaker emphasizes lifelong determination.

Part B

Which evidence from the story and the poem **best** support the answer to Part A? Select one answer from **each** passage for a total of **two** correct answers.

- A. “Soon we’ll have burnt maple candy, a scorched pan, and maybe even the end of the sugaring season.” (paragraph 19, “Maple Madness”)
- B. “I peek out the window. No Gran. No Mimi. There’s no time left.” (paragraph 20, “Maple Madness”)
- C. “In a series of movements, I seize a bucket, slip it beneath the spout, and open the valve.” (paragraph 21, “Maple Madness”)
- D. “When things go wrong, as they sometimes will,” (line 1, “Keep Going”)
- E. “When you’re feeling low and wonder why” (line 3, “Keep Going”)
- F. “Don’t give up though the pace seems slow,” (line 11, “Keep Going”)

6. This question has two parts.

Part A

Which theme is developed in **both** the excerpt from “Maple Madness” and the poem “Keep Going”?

- A. Wisdom comes from unpredictable moments.
- B. Family traditions can lead to personal growth.
- C. Reflecting on the past can have negative consequences.
- D. Success can result from moments of doubt and uncertainty.

Part B

Which evidence from the story and the poem **best** supports the answer to Part A? Select one answer from **each** passage for a total of **two** correct answers.

- A. “When I walk through the doorway, a burst of sweet maple whooshes over me.” (paragraph 3, “Maple Madness”)
- B. “ ‘Don’t worry, Gran,’ I say. ‘I drew off the syrup just in time.’ ” (paragraph 23, “Maple Madness”)
- C. “I saved the season? Their grandson is wonderfully competent?” (paragraph 27, “Maple Madness”)
- D. “As every one of us sometimes learns.” (line 8, “Keep Going”)
- E. “Often the goal is nearer than / It seems to a faint and faltering man.” (lines 13–14, “Keep Going”)
- F. “When he might have captured the victor’s cup,” (line 16, “Keep Going”)

7. Now that you have read an excerpt from the story “Maple Madness” and the poem “Keep Going,” think about the message of each passage.

Write an essay in which you compare what “Maple Madness” and “Keep Going” convey about the power of perseverance. Use details from **both** the excerpt and the poem to support your essay.

Read “The Golden Moon” and answer the questions.

The Golden Moon Celebrating the Chinese New Year

by Amy Wu

- 1 An-May stood by her bedroom window watching the first few flakes of winter flutter to the ground. Bare trees looked like . . . dancers in the early February morning. The air was icy and unwelcoming; she wasn't looking forward to another Saturday. Rosa-Chu, An-May's mother, danced into An-May's room. Her eyes were wide and fiery, her arms flailed up and down crazily.
- 2 “Have you forgotten what day it is?” she asked An-May. An-May looked at her mother with wide eyes; she was confused. “Day before Chinese New Year!” Rosa-Chu cried. She flapped her arms in despair and patted An-May lightly on the back. An-May sighed when she heard those words. Every year her mother became like a crazy woman when it came to the New Year. “Today is the day when we prepare!” Rosa-Chu cried. “Come, get dressed.” An-May sighed, dreading a day of running through the crowded streets of Chinatown. She could almost see the narrow concrete sidewalks streaming with conversation, laughter, music and people. She could smell the hot oily odors of noodles frying in open ovens. She could hear old men with cat-like whiskers crying, “Fish, fish, fish . . . for sale!”
- 3 Rosa-Chu and her daughter rode the rickety bus to Chinatown. Rosa-Chu watched her daughter with sad eyes as she knew deep in her heart that An-May would never be able to understand her love and enjoyment for the coming New Year. This was part of the Chinese culture. American society had done a lot to change her daughter. At one time An-May used chopsticks, now she always used a fork. An-May used to love fried dumplings, now she loved cheeseburgers. An-May used to speak fluent Mandarin, now she didn't even know how to say, “Where's the bathroom?” This saddened and angered Rosa-Chu.
- 4 Rosa-Chu nudged her daughter as the bus screeched to a halt. The rusty doors squeaked open and mother and daughter entered a wonderland of celebration. An-May walked sluggishly behind her mother as they neared the large, brightly lit open-market. The odor of raw fish and fried duck sifted into An-May's nostrils. An-May followed her mother through the very slim lanes stocked with

preserved cans of pickled vegetables and packages of dried fish. She watched her mother expertly weave through the packed aisles.

- 5 Rosa-Chu had a moon-wide smile on her face. Her memories of growing up in China always came to life when she prepared for the New Year. New Year in her childhood meant a month of preparation before the real day. Communities got together, built wooden doors, decorated street lamps and the front of homes with red and shiny paper, and pasted words such as “Good Luck” and “Good Health” in bedrooms and restaurants. They gathered enough rice and vegetables to make dozens of different dishes such as sweet dumplings, winter melon soup, coin-sized spareribs and noodles that seemed to stretch on forever. . . .
- 6 With sacks of fresh food in each hand, mother and daughter walked to the “Sunday” Bakery past the tiny herb store that smelled of incense and fresh oranges. Mr. Hwang, the owner, waved to An-May and smiled. He came out and cried “Happy New Year, Happy New Year!” “You too, Mr. Hwang!” An-May called back.
- 7 It would be a very long wait at the bakery—too many lines, too many people. “An-May!” Rosa-Chu asked, “Which cake do you think will be the best for tomorrow?” An-May’s mouth watered as she scanned the endless glass counter filled with goodies. “The sweet dumplings filled with coconut and red bean,” she said. She had had that once when she was small, and never did forget the sweetness of the bean and coconut that melted in her mouth. Rosa-Chu smiled when she heard this. These dumplings were her favorite. When she was little her mother used to make these by the dozens and she would swallow them by the handful. Her mother was a very talented cook.
- 8 After returning home, Rosa-Chu chopped garlic and onions with special care. The vegetables sizzled in the wok¹ as dusk filled the tiny kitchen. Rosa-Chu’s mind was a million miles away. She was once again a little girl in the hills of China, skipping stones in a nearby pond and watching her mother steam the barrel of pork to make dumpling filling. New Year was the one time that families came together and old friendships were renewed. Rosa-Chu couldn’t help but feel very happy. An-May didn’t remember when she fell asleep, but when she awoke, the table was filled with every dish imaginable. Wow! It was a feast!
- 9 “After all of this hard work let us celebrate a little earlier,” Rosa-Chu said. She stroked her daughter’s black and silky hair as she placed two porcelain dishes at the round dining room table. Rosa-Chu watched her daughter with

¹wok—a large bowl-shaped frying pan that originated in China

amusement. She saw herself as a little girl, mouth watering, mind swimming, and heart beating. She laughed with delight.

- 10 Just before the sweet dumplings and moon cakes were served, Rosa-Chu tapped her daughter and pointed out the kitchen window. "See the full moon?" she asked. An-May nodded. "That is the same full moon that visited my family and I every Chinese New Year back when I was a little girl. Yes, it is the same moon, same golden texture and shape. . . . See, it is even smiling?"
- 11 An-May suddenly realized that the New Year was more than just shopping, cooking and eating. It was all about culture and society and further understanding one's past and roots. . . . It was magical. Mother and daughter watched the moon, smiling dreamily at the golden fullness. It was always the golden moon that seemed to bring people together, families together, and reclaim old friendships. This was a moon so old and wise, so far away and yet so powerful. This night it had performed a miracle. . . . For just a moment it fused a mother and daughter into one.

"The Golden Moon" by Amy Wu from SKIPPING STONES. © 1994 Skipping Stones Magazine.

8. This question has two parts.

Part A

How does An-May feel about participating in preparations for Chinese New Year in paragraphs 1–3?

- A. Reluctant
- B. Excited
- C. Indifferent
- D. Agreeable

Part B

Which phrase from the story **best** supports the answer to Part A?

- A. “arms flailed up and down” (paragraph 1)
- B. “looked at her mother with wide eyes” (paragraph 2)
- C. “dreading a day of running through the crowded streets” (paragraph 2)
- D. “had done a lot to change her” (paragraph 3)

9. This question has two parts.

Part A

What does the phrase a million miles away mean as it is used in paragraph 8?

- A. Wishing to be elsewhere
- B. Deep in thought
- C. Traveling a great distance
- D. Distracted by chores

Part B

Which phrase from paragraph 8 **best** supports the answer to Part A?

- A. "returning home"
- B. "chopped garlic and onions"
- C. "as dusk filled the tiny kitchen"
- D. "was once again a little girl"

10. This question has two parts.

Part A

Read this sentence from paragraph 11.

An-May suddenly realized that the New Year was more than just shopping, cooking and eating.

This sentence fits into the overall structure of the story by revealing that An-May —

- A. starts to enjoy the holiday preparation
- B. recognizes her own desire to lead a traditional life
- C. begins to understand her mother
- D. acknowledges the importance of pleasing her mother

Part B

Which phrase from paragraph 11 **best** supports the answer to Part A?

- A. “one’s past and roots”
- B. “watched the moon”
- C. “smiling dreamily”
- D. “yet so powerful”

Today you will read about the exploration of the planet Saturn. You will read excerpts from “Surprising Saturn” and “New Moons of Saturn” and the article “Edward Ashton, Astronomer.” As you review these sources, gather information and answer questions so that you can write a response.

from Surprising Saturn

by Liz Huyck

Welcome to Saturn

- 1 Saturn is the sixth planet from the sun, and the second largest planet in our solar system. It’s 95 times more massive than Earth, and 9 times as wide.
- 2 A year on Saturn (the time it takes to go around the sun once) is 29.5 Earth years long. But the days are short. Saturn is spinning very quickly, so it has a new day every 10.5 hours.
- 3 Saturn is very far away. It orbits about 880 million miles . . . from the sun. Even a very fast spaceship would take . . . years to get there. . . . Phone signals, traveling at the speed of light, take over an hour to make the trip. So phone calls to Saturn would have long pauses.
- 4 The planet gets its name from Saturn, the Roman god of agriculture and father of Jupiter. Saturday is also named for him, so Saturday is a great day to look at Saturn.

It Has No Surface

- 5 Like Jupiter, . . . Saturn is a gas planet. That means it has no solid surface—it’s a big ball of cloud. So after you’ve come all this way, you won’t be able to land on it!
- 6 You also probably shouldn’t try to fly through it. Even though it’s made of gas, Saturn is huge and has strong gravity. If a spaceship tried to fly through, gas molecules would rub against the ship and heat it up—a lot. Then the force of all the gas pressing in would crush it like a tin can.
- 7 What kind of gas is it? Saturn is mostly hydrogen, helium, and water vapor, with clouds of ammonia and other chemicals. Near Saturn’s center, the pressure is so intense that hydrogen is squashed into a metallic liquid. At the very center, it may have a small core of rock, like the pit in a cherry. But we don’t know for sure.

It Would Float in a Bathtub

- 8 Saturn is enormous, but it's not very dense. It's kind of like a foamy marshmallow, or a big cloud of haze. So if you could find a bathtub big enough, Saturn would float! . . .

It Wears Rings

- 9 Saturn's most noticeable feature is its spectacular rings. The rings are not solid. They are made up of small bits of ice and dust. . . . But they are very thin—only about 30 feet (10 m) thick. They're so thin that up close, you can see through them.
- 10 Saturn did not always have rings. They probably formed when a couple of small moons or comets smashed together, scattering ice and dust in a ring around the planet.
- 11 Saturn is famous for its rings, but it's not the only ringed planet. Jupiter, Uranus, and Neptune also have rings, though they are small and faint. Some scientists think that Earth also may have once had a rocky ring. . . .

Many Moons

- 12 Saturn is rich in rings, and also in moons—it has at least 146. There are eight big ones and dozens of smaller ones. Some orbit close to the planet. Some are millions of miles away. And some tumble around in the rings.
- 13 Saturn's moons are mostly ice and rock dust. Most are quite small, less than 100 miles (160 km) across. The small moons inside Saturn's rings are called shepherd moons. They make gaps in the rings by sweeping up ice. They also make waves. The rings are also full of tiny "moonlets," the beginnings of new moons.
- 14 A few groups of small moons orbit quite far from Saturn. These distant moons are probably pieces of captured asteroids—giant balls of ice and rock that wandered too close to the planet.
- 15 Two moons, Titan and Enceladus, have underground oceans beneath icy outer shells. Titan has methane lakes and even an atmosphere.

From "Surprising Saturn" by Liz Huyck, ASK! Magazine, November 2019. Cricket Media, Inc. Used by permission.

11. This question has two parts.

Part A

In paragraph 7 of the excerpt from “Surprising Saturn,” the word intense tells the reader that the pressure near Saturn’s center is —

- A. very strong
- B. hard to break
- C. difficult to understand
- D. dangerous to humans

Part B

Which detail from paragraph 7 **best** supports the answer to Part A?

- A. “clouds of ammonia and other chemicals”
- B. “hydrogen is squashed into a metallic liquid”
- C. “it may have a small core of rock”
- D. “don’t know for sure”

12. This question has two parts.

Part A

Paragraphs 12 and 13 of the excerpt from “Surprising Saturn” develop the idea that Saturn is a mysterious planet by —

- A. stating that the moons create the rings of Saturn
- B. discussing the materials found on Saturn’s moons
- C. describing the different ways that Saturn’s moons behave
- D. explaining that Saturn is the only planet with multiple moons

Part B

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

- A. “eight big ones and dozens of smaller ones” (paragraph 12)
- B. “are millions of miles away” (paragraph 12)
- C. “mostly ice and rock dust” (paragraph 13)
- D. “make gaps in the rings by sweeping up ice” (paragraph 13)

from New Moons of Saturn

by Nick D'Alto

- 1 Tiny, lumpy, and whizzing around their planet in all directions. And not just one or two of them, but an entire swarm. Welcome to the surprising new moons of Saturn.
- 2 Astronomer Edward Ashton led the team that recently discovered an astonishing 63 tiny new natural satellites orbiting around the sixth planet from the sun. His findings pushed Saturn past Jupiter for the most moons in our solar system. No one has ever found this many moons before. . . .

Why Keep Searching?

- 3 Astronomers have been finding moons in orbit around Saturn for centuries. It began not long after the introduction of the telescope, which happened in 1608. Dutch science pioneer Christiaan Huygens discovered the first known moon of Saturn in 1655; it was named Titan.
- 4 By using ever-more powerful instruments over the years, astronomers found nearly a hundred more moons. So, why expect to find even more than that? "Based on a planet's size and other traits, we can estimate how the moons that orbit around that planet should vary in size and what percentage are big and small," Ashton explains. "For Saturn, smaller moons were still missing from the total."

Tough to Spot

- 5 But these missing moons around Saturn would prove difficult to spot. "They'd be very small and dim," Ashton says. "Plus, they'd be moving rapidly, so they wouldn't stay in the same place long."
- 6 Their movements make the moons too faint to appear in a still photograph, even when taken using a powerful telescope. And longer exposures would just show nearly meaningless streaks. "Even the *Voyager* and *Cassini* satellites, which flew past Saturn," Ashton says, "failed to notice these moons."

A New Way to Look

- 7 To finally spot these elusive orbiters, Ashton and his team used a cutting-edge technique called *shift and stack*. This involved first taking many images through the telescope of regions around Saturn where the moons might be. [The team] obtained a total of 44 images, for each three-hour period. Then, based on how the moons should be moving, each image was shifted. So, the spot where moons should appear landed in the same place in each frame.

8 There was still nothing to see. Each moon image remained too dim. But the researchers overlapped the images and carefully aligned them. These fuller pictures revealed moons that were bright enough to see! “This method had been used before to find moons around other planets,” Ashton says, “but never around a giant planet like Saturn, where there is so much more space to explore.”

A Different Kind of Moon

9 The moons these images captured are uncannily small. They are miniature worlds, measuring just a few miles . . . across. They are shaped like lumpy potatoes, as they lack sufficient mass for their gravity to make them round. They orbit very far from Saturn itself, from six to 18 million miles (10 to 29 million km) out. On average, they are about 50 times farther away than our moon is positioned from Earth. Their orbits are unusual in other ways, too. They’re extremely elongated and slanted compared to the planet’s orbit. Different moons of Saturn revolve in different directions. And some moons follow one another in virtually the same orbit. . . .

Our Dynamic Solar System

- 10 These new moons make Saturn an even more fascinating place. Saturn is most famous for its distinctive rings, which are made from millions of shimmering ice crystals. Ten times the size of Earth and 10 times as far from the sun, Saturn is a “gas giant” made of mostly hydrogen and helium. This means the planet has no solid surface. Because it is orbited by so many moons, some scientists liken it to a kind of “mini solar system.”
- 11 The newly found moons also change the way we think about moons themselves. They remind us that not every moon is like our moon, or the other, larger *regular* ones. “The larger moons exert the greatest effects on their planets,” Ashton says. “But in terms of numbers, the most common moons in the solar system are these tiny ones.”

From “New Moons of Saturn” by Nick D’Alto, *Muse Magazine*, March 2024. Cricket Media, Inc. Used by permission.

13. This question has two parts.

Part A

Which statement describes a central idea of the excerpt from “New Moons of Saturn”?

- A. Saturn has more moons than Jupiter.
- B. The moons of Saturn move in many different ways.
- C. Titan was the first moon of Saturn discovered from Earth.
- D. New technology allowed scientists to learn more about Saturn.

Part B

Which sentence from the excerpt **best** supports the answer to Part A?

- A. “And longer exposures would just show nearly meaningless streaks.” (paragraph 6)
- B. “To finally spot these elusive orbiters, Ashton and his team used a cutting-edge technique called *shift and stack*.” (paragraph 7)
- C. “Different moons of Saturn revolve in different directions.” (paragraph 9)
- D. “These new moons make Saturn an even more fascinating place.” (paragraph 10)

14. This question has two parts.

Part A

In the excerpt from “New Moons of Saturn,” the section “Why Keep Searching?” contributes to the overall structure by —

- A. explaining the reason scientists continue to look for new moons
- B. including the steps used to study the moons
- C. describing the problems caused by having many moons
- D. listing the technology used to study new moons

Part B

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

- A. “finding moons in orbit around Saturn for centuries” (paragraph 3)
- B. “discovered the first known moon of Saturn” (paragraph 3)
- C. “using ever-more powerful instruments over the years” (paragraph 4)
- D. “ ‘smaller moons were still missing’ ” (paragraph 4)

15. This question has two parts.

Part A

Which claim does the author of the excerpt from “New Moons of Saturn” make in the section “Our Dynamic Solar System”?

- A. The new moons have large effects on the surface of Saturn.
- B. The new moons of Saturn add to an understanding of how the universe works.
- C. The new moons have proved that Saturn is its own solar system.
- D. The moons of Saturn are less interesting to scientists than the rings.

Part B

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

- A. “most famous for its distinctive rings” (paragraph 10)
- B. “it is orbited by so many moons” (paragraph 10)
- C. “not every moon is like our moon” (paragraph 11)
- D. “ ‘exert the greatest effects on their planets’ ” (paragraph 11)

Edward Ashton, Astronomer

by Nick D'Alto

In this magazine article, the author interviews astronomer Edward Ashton.

- 1 The astronomer who led the team behind the impressive Saturn moon discovery was Edward Ashton. . . .
- 2 **Finding all these new moons wasn't exactly an overnight discovery. What was the process like?**
- 3 It certainly wasn't a quick discovery. I started this research almost five years ago.
- 4 We used data taken using . . . a 3.6-meter [10.5-foot] optical/infrared telescope. . . . The images we used were taken over many three-hour periods, between 2019 and 2021.
- 5 While these were superb images, these moons were still too faint to see in them. So, we used special techniques, such as one called *shift and stack*, to overlap the images and merge the data together, to make the moons visible.
- 6 **Then seeing all those tiny dots around Saturn was the aha moment?**
- 7 Not yet. Just finding an object close to a planet doesn't guarantee it's a moon. It could be an asteroid passing near the planet. Also, objects near a planet don't always remain there. To be sure, we must track an object for several years, to prove that it's really orbiting the planet. It's a very formalized process.
- 8 **How did you track them?**
- 9 Have you ever played a game of connect the dots? It was a little like that. We had to connect where an object that we thought was a moon appeared in many different images. So, we could piece together how that object might be orbiting around the planet. At times, it was like playing a hundred games of connect the dots—on the same page. But without knowing which dot belonged to which puzzle!
- 10 **Had any of these moons been seen before?**
- 11 In fact, some of them had been spotted briefly many years ago but hadn't been tracked long enough to prove that they traveled around the planet in stable orbits. This is easy to understand, because these moons all orbit very far from the planet. . . .

12 Isn't it tough to keep track of them?

13 It is tough. First, we needed to screen out Saturn's already-known moons. Plus, we had to submit our findings to the Minor Planet Center, which keeps track of these kinds of natural satellites. And their archives of past sightings go back many years. So, once we knew our orbits, we had to run those orbits backwards in time, to see if any of our finds matched the old records. When we did find a match, that was extra proof.

14 Saturn is almost a billion miles from the sun, yet you were able to find small moons!

15 Yes, each moon we found is in the range of about two to three miles [3.2 to 4.8 kilometers] across. These moons are about as small as current technology can detect, at that range. And that's important. It reminds us that our solar system is really a collection of objects, but greatly varying scales.

From "Edward Ashton, Astronomer" by Nick D'Alto, Muse Magazine, March 2024. Cricket Media, Inc. Used by permission.

16. This question has two parts.

Part A

In the article “Edward Ashton, Astronomer,” the purpose of the interview is to —

- A. prove why it is so difficult to conduct space research
- B. illustrate how little is known about the objects in the universe
- C. explain why it is important to study the moons of other planets
- D. convey what it is like to be a scientist searching for new information

Part B

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

- A. “It certainly wasn’t a quick discovery. I started this research almost five years ago.” (paragraph 3)
- B. “To be sure, we must track an object for several years, to prove that it’s really orbiting the planet.” (paragraph 7)
- C. “At times, it was like playing a hundred games of connect the dots—on the same page. But without knowing which dot belonged to which puzzle!” (paragraph 9)
- D. “Plus, we had to submit our findings to the Minor Planet Center, which keeps track of these kinds of natural satellites.” (paragraph 13)

17. This question has two parts.

Part A

How do the authors of the excerpts from “Surprising Saturn” and “New Moons of Saturn” use different approaches to develop the topic of Saturn’s moons?

- A. The author of “Surprising Saturn” communicates using data, whereas the author of “New Moons of Saturn” communicates using feelings and imagination.
- B. The author of “Surprising Saturn” includes a list of facts, whereas the author of “New Moons of Saturn” describes recent discoveries.
- C. The author of “Surprising Saturn” gives instructions for experiments, whereas the author of “New Moons of Saturn” gives a time line of names and dates.
- D. The author of “Surprising Saturn” focuses on the history of Saturn, whereas the author of “New Moons of Saturn” includes biographies of scientists who study Saturn.

Part B

Which sentences from the excerpts **best** support the answer to Part A? Select one answer from **each** excerpt for a total of **two** correct answers.

- A. “Saturday is a great day to look at Saturn.” (paragraph 4, “Surprising Saturn”)
- B. “But we don’t know for sure.” (paragraph 7, “Surprising Saturn”)
- C. “They are made up of small bits of ice and dust.” (paragraph 9, “Surprising Saturn”)
- D. “Astronomers have been finding moons in orbit around Saturn for centuries.” (paragraph 3, “New Moons of Saturn”)
- E. “And longer exposures would just show nearly meaningless streaks.” (paragraph 6, “New Moons of Saturn”)
- F. “These fuller pictures revealed moons that were bright enough to see!” (paragraph 8, “New Moons of Saturn”)

18. This question has two parts.

Part A

How is the author’s purpose in the excerpt from “New Moons of Saturn” different from the author’s purpose in the article “Edward Ashton, Astronomer”?

- A.** “New Moons of Saturn” shows that scientists must be persistent, whereas “Edward Ashton, Astronomer” explains how current work will affect future research.
- B.** “New Moons of Saturn” explains how the new moons were found, whereas “Edward Ashton, Astronomer” explains how the scientists felt about the new moons.
- C.** “New Moons of Saturn” gives an overview of the traits of the new moons, whereas “Edward Ashton, Astronomer” gives a detailed explanation of the lengthy research process.
- D.** “New Moons of Saturn” gives historical background on the discovery of Saturn’s moons, whereas “Edward Ashton, Astronomer” implies that finding Saturn’s largest moons is the most important task.

Part B

Which sentences from the excerpt and the article **best** support the answer to Part A? Select one answer from **each** passage for a total of **two** correct answers.

- A.** “Welcome to the surprising new moons of Saturn.” (paragraph 1, “New Moons of Saturn”)
- B.** “His findings pushed Saturn past Jupiter for the most moons in our solar system.” (paragraph 2, “New Moons of Saturn”)
- C.** “They are shaped like lumpy potatoes, as they lack sufficient mass for their gravity to make them round.” (paragraph 9, “New Moons of Saturn”)
- D.** “The images we used were taken over many three-hour periods, between 2019 and 2021.” (paragraph 4, “Edward Ashton, Astronomer”)
- E.** “Just finding an object close to a planet doesn’t guarantee it’s a moon.” (paragraph 7, “Edward Ashton, Astronomer”)
- F.** “At times, it was like playing a hundred games of connect the dots—on the same page.” (paragraph 9, “Edward Ashton, Astronomer”)

- 19.** You have read “Surprising Saturn,” the excerpt from “New Moons of Saturn,” and the interview “Edward Ashton, Astronomer.”

Write an essay explaining how each author presents the information about Saturn and its moons differently. Use details from all **three** sources to support your essay.





Please let your teacher know that you have completed your test.



