**Read the selection. Then read each question. Choose the best answer.**

**Maria Mitchell,**

**Astronomer and Teacher**

*1* “The eye that directs the needle,” astronomer Maria Mitchell observed, “will equally well bisect a star . . . .” The eye she referred to was that of women, almost all of whom knew how to sew back when Maria Mitchell was born in 1818. However, Maria believed that women could also do much more than oversee a household. The third of ten children in a Quaker family in Massachusetts, Maria grew up in a home where learning was part of living. Most people of that era thought girls didn’t need academics. Yet Maria’s parents taught all of their children to learn just for the sheer love of knowledge.

*2* Her father recognized Maria’s talent for mathematics and science. He taught her celestial navigation to set ships’ clocks, and to observe the stars. Maria was just twelve when she helped her father record an eclipse. As a teen, she spent countless nights watching the sky from the roof of their home. These interests were unusual for young women of her day. Few studied the sciences or mathematics. Fewer still became physicians or researchers. But change was happening ever so slowly. During her life, Maria worked as a scientist and as a teacher to lead that change.

*3* On October 1, 1847, Maria really made her mark in astronomy. As she watched the sky through her father’s telescope, a comet sped into her field of view. She knew at once how important her sighting was. She was the first person to record a comet sighting. She had done something truly remarkable. She had discovered a comet using only a telescope.

*4* Fame followed Maria’s discovery, and she received a gold medal for her work. She also became the first female member of the American Academy of Arts and Sciences. She met many other scientists and talked about her work with them. Still, she knew that men of science did not think of her as a real scientist. They failed to take her work seriously. History showed so few examples of women in science.

*5* Maria understood that a woman scientist was an alien idea to people. She wanted to change this perception and show them she was not unique. She wanted people to know that other women could also become scientists. At seventeen, Maria had set up a small school to teach girls math and science. Now, older and better known, she began teaching at Vassar, the first women’s college in the United States.

*6* She was a challenging and entertaining teacher. She held “dome parties” in the astronomy building. Any student could come to these gatherings and look through the telescope, play games, and tell amusing stories. Over the years, many students were touched by her love of science, as well as her friendship.

*7* Teaching at the college was sometimes difficult, partly because so little money was available to buy science equipment. Maria received a telescope only after women across the nation raised and donated money to buy it. And she earned less than the young male teachers who had not yet done notable research. The college finally increased her salary when she brought the unfairness to their attention.

*8* Over the years, Maria actually saw changes in how the nation perceived women in the sciences. By the time of her death, in 1889, higher numbers of women were studying more branches of science than ever before. It would have pleased her to know that women were taking action and acquiring knowledge for themselves.

1. Based on the article, Maria’s desire to study and teach astronomy was unusual because—
	1. most women preferred biology.
	2. most women were housekeepers.
	3. most people thought learning was unimportant.
	4. most people feared scientific ideas.
2. Which of the following inferences could be made about why young Maria most likely pursued her early interest in science?
	1. She was a poor seamstress.
	2. She had nine brothers and sisters.
	3. She had to do many household chores.
	4. She helped her father with his scientific work.
3. What event led to Maria winning a gold medal for her work?
	1. Maria sent surveys all around the country.
	2. Students at Vassar attended “dome parties.”
	3. Women paid for a telescope for Maria to use at Vassar.
	4. Maria discovered a comet while looking through a telescope.
4. In paragraph 8, why does the author write that women studying science “would have pleased” Maria?
	1. Maria came from an educated family.
	2. Maria had hoped more women would become scientists.
	3. Maria was paid less than younger male science teachers.
	4. Maria knew that science and housework are both important.
5. Which event in Maria’s life was most important in helping her career as an astronomer?
	1. She spotted a comet through a telescope.
	2. She recorded an eclipse.
	3. She set up a small school for girls.
	4. She received her own telescope through donations from other women.
6. What is the main idea of this text?
	1. All girls are good at science.
	2. Teachers are caring and work hard.
	3. Good teachers can change lives.
	4. Everyone should study astronomy.
7. Which of the following details**BEST** supports the main idea of this passage?
	1. Maria was a challenging and entertaining teacher.
	2. Maria’s father taught her celestial navigation to set up a ship’s clock.
	3. Maria was the first to record a comet sighting.
	4. Men of science did not think of Maria as a real scientist.

**Read the selection. Then read each question. Choose the best answer.**



*1* One of the places in the world with the most rain is in India. In some years, the town of Cherrapunji (Chair-ah-POON-jee) is the rainiest. In other years, its neighbor, the town of Mawsynram (maw-sin-RAHM), gets the most rain.

*2* It once rained in Cherrapunji every day for almost two years. In 1861, it got the most rain in a month and the most in a year (1,041 inches), setting world records. Today, the towns receive an average of 366 inches of rain a year. That’s nearly eight times as much as the average rainfall in New York City (47 inches) and 24 times as much as Los Angeles (15 inches).

*3* Yet the people living in these towns in India don’t have enough water to drink, to bathe, and to cook their meals. Why does it rain so much there, and why is water so scarce?

*4* The extreme rainfall occurs because the towns are high above ground, near an ocean, and in the path of a special wind system called a monsoon. Air is drawn in from the Indian Ocean and blows over the plains below the two towns that are located almost one mile above sea level. As the air rises, it cools, picks up moisture, and forms rain clouds. In spring and summer, the monsoon blows up from the valley below and releases its rain in Cherrapunji and Mawsynram. The heaviest downpours come with stinging force between April and September.

*5* So why is there a shortage of water? People have harmed the environment over time by cutting down trees, mining for coal and limestone, and growing crops in ways that have caused the topsoil to wash away. The land has become dry and stony. Without forests or topsoil, the rain doesn’t sink into the ground to fill underground wells. Also, there is a six-month dry season from October to the following April, when the monsoon reverses direction away from these towns. During that time, trees and vegetation have difficulty growing.

*6* It is also hard to store the rain. The downpour is so heavy that the riverbanks and levees can’t hold all the water. The levees break and the rainwater races downhill over high cliffs. Water floods the neighboring country of Bangladesh below.

*7* The towns of Cherrapunji and Mawsynram are very poor and far from other communities. They cannot afford to repair rusty, cracked storage tanks and leaky pipes that carried water from other places. So the people of Cherrapunji put out buckets to catch the water during the rainy season. In the dry winter, women and children carry empty oilcans on their backs and trek miles uphill to bring water from the springs above the town. This takes several hours and the cans are heavy. Sometimes the townspeople can buy water from containers on trucks that are driven up from the plains below.

*8* “Water, water everywhere, nor any drop to drink,” wrote poet Samuel Taylor Coleridge in a famous poem about being on the ocean. This could also describe the wettest place on Earth.



1. During the months from October to the next April in Cherrapunji and Mawsynram—
	1. very little rain falls.
	2. crops and trees grow well.
	3. the people store extra water.
	4. miners dig for coal and limestone.
2. Look at the photograph and read the caption given in the narration. What danger caused by heavy rainfall does this photograph portray?
3. danger to crops
4. danger to people
5. danger to forests
6. danger to other nations
7. Weather patterns affect life in Cherrapunji and Mawsynram by making these towns—
8. very green.
9. good areas for mining.
10. hard places to survive.
11. important for trade.
12. According to the article, which of the following is the “Wettest Place on Earth”?
	1. Bangladesh
	2. India
	3. Los Angeles
	4. New York City
13. The main cause of the high rainfall in Cherrapunji and Mawsynram is that—
	1. the towns are close to one another.
	2. the people have cut down most of the trees.
	3. the monsoon blows directly across the towns.
	4. the water in the ocean is evaporating at a high rate.
14. The people of Cherrapunji and Mawsymram cannot repair storage tanks and pipes because they—
	1. have too little time.
	2. get too much rainfall.
	3. have too little money.
	4. live too far from other towns.
15. How is the text organized?
	1. Chronological
	2. Cause and Effect
	3. Problem and Solution
	4. Narrative
16. Which sentence provides evidence that the author is frustrated with the shortage of water in this area?
17. People have harmed the environment.
18. The heaviest downpours come between April and September.
19. The storage tanks are leaky and rusty.
20. The levees cannot hold all of the water.
21. Why did the author write this text?
	1. To inform people about rainfall all over the world.
	2. To inform people about the water shortage in Cherrapunji and Mawsynram.
	3. To persuade people to send money to Cherrapunji and Mawsynram.
	4. To persuade people to build wells in Cherrapunji and Mawsynram.
22. Which of the following caused the water shortage in Cherrapunji and Mawsynram?
23. poor communities
24. buying water
25. empty wells
26. cutting down trees
27. The article ends with the quotation from Samuel Taylor Coleridge, “Water, water everywhere, nor any drop to drink.” What details from the text support this concluding idea?
28. The extreme rainfall occurs because the towns are high above ground, near an ocean, and in the path of a special wind system called a monsoon.
29. It once rained in Cherrapunji for every day for almost two years in 1861, and now they receive 366 inches of rain a year.
30. One of the places in the world with the most rain is India, yet the people living in these towns in India don’t have enough water to drink, to bathe, and to cook their meals.
31. The heaviest downpours come with stinging force between April and September. Also, there is a six month dry season from October to the following April.

**Read the selection. Then read each question. Choose the best answer.**

**Hi, Neighbor**

*1* The first I saw of Mrs. Kehoe was her feet when she walked around a tight circle of giant rose bushes where I was hiding. I was not hiding from Mrs. Kehoe; I was hiding from my parents, who had made me move away from my friends and my comfortable old neighborhood to this new street in a different part of town. Frankly, I was much too mature to be hiding. Plus, hiding was more boring than I remembered.

*2* “You there, I spy you hiding in my rose bushes,” said a powerful voice from somewhere above the feet, which, by the way, were wearing sturdy black gardening clogs. “Come out now.”

*3* I crawled out sheepishly with scratches from the rose bush’s thorns. Beyond that, I knew there were probably leaves throughout my hair and dirt on my knees and elbows.

*4* “Hello, I’m Emily,” I said, standing up and holding out my hand. “I just moved in next door.”

*5* “Into the old Foster place. That’s good, very good,” she said, shaking my hand firmly. “We need some children around here to liven things up. How old are you, about eleven?” I nodded my agreement. “You don’t seem afraid to get dirty, Emily, which is an excellent quality. I’m Mrs. Kehoe, and these are my bushes. Here,” she said, handing me a gardening tool I’d never seen before. It wasn’t your basic rake or shovel or anything; it was a small tool that had a short, curved pair of blades at the end. When you worked the handles like a pair of scissors, the blades opened and closed like a snapping turtle’s jaws. “Now, Emily,” said Mrs. Kehoe, “we’re going to prune these rose bushes. They need pruning in order to breathe correctly, and *you* need something useful to do until your parents decide to come looking for you.”

*6* What could I do but obey? She seemed so sure of everything, and it was oddly relaxing and refreshing to do something other than my usual chores.

*7* As it turned out, Mrs. Kehoe knew a great deal about roses, and it also turned out there was a lot to know. The bushes making up the circle I hid in were Buck roses, named after Griffith Buck, a man who’d spent most of his life teaching at a college in Iowa. His official subject had been engineering (a dry subject, Mrs. Kehoe noted), but, in all of his spare time, he grew and bred his roses. Over dozens of years, he had planted different roses in a field on his property, and those that survived the harsh Iowa winters were the ones he continued to breed. Roses were his passion, and he had been dedicated to breeding hardy and colorful versions. “I cannot stress enough the importance of passion and dedication, Emily,” Mrs. Kehoe said. “That is the secret of satisfaction, which, my dear, you may find is more important than fame or greatness.” By the end of Mr. Buck’s very productive life, she continued, he had developed many different kinds of hardy, healthy, vivid roses. Any one of these roses, Mrs. Kehoe assured me, would make a fine lifelong companion in the garden. We pruned a bush together, meaning she pointed, I cut. We were just about to start on a second bush when my mother ran breathlessly into Mrs. Kehoe’s yard.

*8* “Emily!” she said, “Are you bothering Mrs. Kehoe?”

*9* “Not at all,” Mrs. Kehoe said. “She’s a good little pruner, and I hope,” she said to me, “that you’ll come back, because we have several more bushes to do.”

*10* I said that I would, and the truth is, I was looking forward to it.

*11* As my mother dragged me by the hand towards my new yard, a yard that could really use a few Buck roses, I kept glancing back at Mrs. Kehoe in her large woven sunhat and her black clogs.

*12* “Emily!” she yelled at me, waving a dark magenta rose that looked perfectly open and full, “the name of this specific Buck rose is ‘Hi, Neighbor’!”

*13* I laughed and waved my other hand.

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1. You can infer that as she prunes roses with Mrs. Kehoe, Emily learns that—
	1. she can make new friends.
	2. gardens make people happy.
	3. pruning is too difficult for her.
	4. obeying her parents is important.
2. In paragraph 5, the comparison of the tool’s blades to a snapping turtle’s jaws helps the reader understand that the tool is—
3. alive.
4. small.
5. green.
6. strong.
7. Emily realizes that she probably has dirt on her knees and leaves in her hair after—
8. she learns to prune roses.
9. she sees Mrs. Kehoe’s feet.
10. she crawls out of the rose bushes.
11. her mother comes to bring her home.
12. What inference can be made as to why Emily is happy at the end of the story?
13. She has made a new friend.
14. She likes her new neighborhood.
15. She likes to play in the rose bushes.
16. She has learned about Griffith Buck.
17. What reason does the author give for Emily hiding in the bushes?
18. Her parents had made her move away from friends.
19. She loved playing hide and seek.
20. She wanted to meet Mrs. Kehoe.
21. She was nervous to make new friends.
22. The passage explicitly states that Mrs. Kehoe knew a great deal about roses. What can you infer about Mrs. Kehoe?
23. Mrs. Kehoe owns a greenhouse.
24. Gardening is new to Mrs. Kehoe.
25. Mrs. Kehoe spends a lot of time pruning roses.
26. Mrs. Kehoe always wears a large woven hat.
27. Which of the following statements about Griffith Buck is true?
28. He developed one kind of rose.
29. He grew and bred roses.
30. He taught at a college in Ohio.
31. His passion was engineering.
32. Which detail from the story helps you conclude that the theme of the story is friendship?
33. Mrs. Kehoe and Emily prune bushes.
34. Mrs. Kehoe tells Emily about Griffith Buck.
35. Emily hid in the rose bushes.
36. Emily laughs and waves as she leaves.