Read the passage from the fiction book *Building Root City*. Then answer questions 1 through 5.

Passage from

Building Root City

by Victoria Smith

1 Trina watched as Rani gathered twigs and showed JayCee how to build a little shelter. She was caught between anger and envy. Rani didn't act like someone whose parents were getting divorced. How could she be so calm? Trina fumed for a few minutes. Then she joined them. She had to protect her babysitting job!

2 "I sit for JayCee all the time," she told Rani. Her tone warned Rani to back *off*.

3 "That's nice," said Rani. "I'll bet you like that, don't you, JayCee?"

4 JayCee made a *brmmming* sound for his car.

5 Trina wished Abby could be here. Abby understood that sometimes Trina got so angry her insides boiled. Not like perfect Rani, who didn't seem the least bit upset about her own family's divorce.

6 Rani's mother shouted from their apartment window across the street and Rani hurried home.

7 "Help me fix this house, Trina," JayCee said.

8 "Not today."

9 "Aw, come on," JayCee said.

10 Trina felt frustration building in her chest.

11 "Pleeease?" JayCee pleaded.

12 Trina tried to take a deep breath, but it turned into a huff. She didn't care about his stupid Root City! Still, she made herself go over to see what he wanted. When she did, her foot hit a little pile of sticks and toppled them.

13 "My bridge!" JayCee yelled. "Nooo!"

14 Trina felt fury twist her gut. All the anger she'd been feeling all day exploded, and she lost it. She kicked at JayCee's city. Hard. He shrieked, but she just kept kicking. She couldn't stop. Cars crashed and twigs flew.

15 JayCee's shrieks were high-pitched, like a siren. He ran for home. When Trina caught up with him, he looked scared and pulled away from her. She didn't blame him. She had scared herself. She'd never lost control like that before. She felt out of breath.

16 JayCee was still sobbing. As she followed him up the stairs, she wondered what would happen now. Was she going to lose her babysitting job, along with everything else?

Reading Comprehension

Now answer questions 1 through 5 by filling in the circle next to the best answer.

1. Read these sentences from paragraph 1 of the passage.

> **Rani didn't act like someone whose parents were getting divorced. How could she be so calm? Trina fumed for a few minutes.**

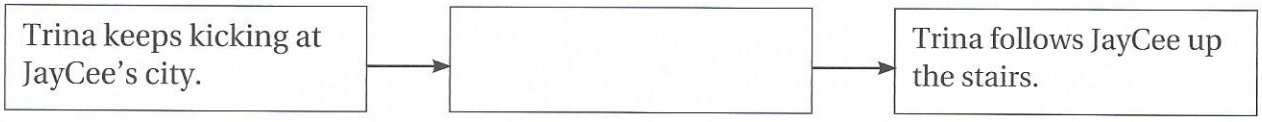
What does the word *fumed* mean?

- ◯ **A** showed or felt anger
- ◯ **B** felt pity for someone
- ◯ **C** broke out in laughter
- ◯ **D** became tired or bored

2. The sound of the letters *ie* in the word *shrieked* matches the vowel sound in the word

- ◯ **A** crier.
- ◯ **B** niece.
- ◯ **C** friend.
- ◯ **D** science.

3. The chart below shows events in sequence. First, read the chart.



Which event belongs in the empty box in the chart?

- ◯ **A** Trina warns Rani to back off.
- ◯ **B** JayCee shrieks and runs for home.
- ◯ **C** JayCee pleads with Trina to help fix a house.
- ◯ **D** Rani's mother shouts from the apartment window.

4. How does Trina MOST LIKELY feel in paragraph 15?

- ◯ **A** angry
- ◯ **B** hopeful
- ◯ **C** envious
- ◯ **D** regretful

5. Which phrase BEST describes this passage?

- ◯ **A** classic legend
- ◯ **B** comic fantasy
- ◯ **C** realistic fiction
- ◯ **D** modern-day fairy tale

Read the passage from the nonfiction book *Ig Nobel: Laugh, Then Think.* Then answer questions 1 through 15.

Passage from

Ig Nobel: Laugh, Then Think

by Terry Miller Shannon

An Ignoble Start

1 The Ig Nobel Prize was created in 1991 by Marc Abrahams, who was the editor of an American science humor magazine. Scientists constantly asked for his help in winning a Nobel Prize, even though Abrahams told them he had no influence on the impressive awards.

2 However, when he heard what these people had accomplished, Abrahams decided they needed to win an award, all right—an award for performing outlandish feats. It was hard to believe people had made such strange accomplishments. Abrahams felt they should be recognized for their creative, entertaining deeds.

3 He started the annual Ig Nobel Prize Ceremony in Cambridge, Massachusetts, in the United States. Three hundred and fifty people attended eagerly, along with curious reporters. He asked four Nobel Prize winners to hand out prizes—and they did, wearing Groucho glasses (glasses that have a fake nose, mustache, and bushy eyebrows attached to them) and funny hats. The Ig Nobel ceremony was a success. Over the years, the audience grew to 1,200 people.

4 There are several thousand nominations every year. The champions are chosen by the Ig Nobel Board of Governors, which is made up of scientists, Nobel Prize winners, journalists, and editors.

A Humorous Ceremony

5 One way to reward ridiculous achievements is with a ridiculous ceremony. Each year, awards are given to ten Ig Nobel winners. During the ceremony, 1,200 audience members toss paper airplanes at the stage while people on the stage throw them back at the audience. (There are so many paper airplanes involved that two people must constantly sweep the stage so people can actually walk on it!)

6 The evening starts with the Ig Nobel "Welcome, welcome" speech. You might expect such a speech at an awards ceremony to be rather long and maybe a bit boring. But for the Ig Nobels, it is made up of just those two words: "Welcome, welcome."

continued on next page

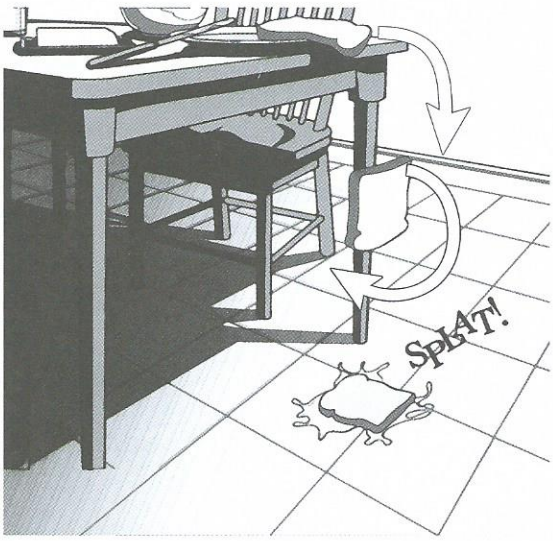
7 Next, opera singers perform a short comical opera made up just for the occasion (*The Cockroach Opera* was the first Ig Nobel opera). Then, prominent scientists, actors, and others give lectures, limited only by time—they have a full half-minute to talk. After each speaker talks for 30 seconds, he is either finished or he is escorted off the stage by a professional baseball umpire.

Toasting a Prize

8 The awards are given to all sorts of people—scientists, artists, engineers—who do extraordinary but humorous things. British scientist Robert Matthews was given an award for toast, for example. He found that it more often fell buttered-side down. Matthews said, "Like many people, [at first] I thought that toast tumbling off a plate was like a coin toss, and as likely to land butter-up as butter-down." He wondered if the butter made a difference in terms of on which side the toast would fall.

9 Then he read a letter in *New Scientist* magazine in which the writer claimed the reason toast lands with the buttered side down is because it doesn't have time to totally rotate when it falls off a plate. It only has time to rotate halfway. Matthews tested this claim, first with pieces of toast-sized wood and then with actual buttered toast. He learned that the table would have to be eight feet tall for the toast to completely flip over in the air. It also did not matter if the toast was buttered or not.

10 Matthews won an Ig Nobel Prize in the field of physics for his toast research. In the 1990s, when he received the award, some people criticized the awards as bringing ridicule to serious scientists. The critics felt it "put down" the work that had been done in science. Other people felt that studying things like the way cereal goes soggy was a waste of time and money.



11 But Matthews was happy to have won. He said he was "glad that my work on confirming this commonly held urban myth would reach a wider audience." He also found that the response to his award was quite positive.

Reading Comprehension

Now answer questions 1 through 15 by filling in the circle next to the best answer.

1. Read this sentence from paragraph 1 of the passage.

> **Scientists constantly asked for his help in winning a Nobel Prize, even though Abrahams told them he had no influence on the impressive awards.**

The word *influence* means

- ◯ **A** lack of control.
- ◯ **B** likelihood of winning.
- ◯ **C** power to affect persons or things.
- ◯ **D** disagreement with an idea or process.

2. In paragraph 1, what meaning does the suffix *-ive* add to the meaning of the word *impress*?

- ◯ **A** full of
- ◯ **B** likely to
- ◯ **C** made for
- ◯ **D** connected with

3. Read these sentences from paragraph 10 of the passage.

> **In the 1990s, when he received the award, some people criticized the awards as bringing ridicule to serious scientists. The critics felt it "put down" the work that had been done in science.**

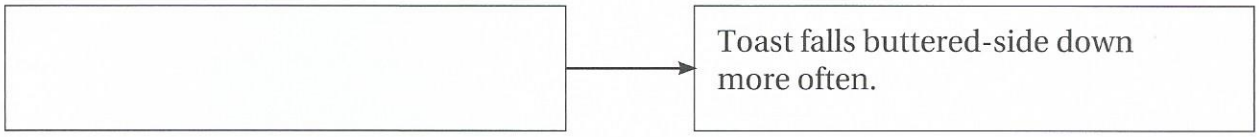
Which word is a synonym for *ridicule*?

- ◯ **A** scorn
- ◯ **B** alarm
- ◯ **C** humor
- ◯ **D** popularity

4. Which syllable in *ceremony* has a long *e* sound?

- ◯ **A** the first syllable
- ◯ **B** the second syllable
- ◯ **C** the third syllable
- ◯ **D** the fourth syllable

5. The chart below is designed to show why toast usually falls a certain way. First, read the chart.



cause **effect**

Which statement belongs in the empty box?

- ◯ **A** The buttered side of the toast is heavier than the other side.
- ◯ **B** The toast flips one-and-a-half times after it falls from the plate.
- ◯ **C** The buttered side of the toast is more slippery than the other side.
- ◯ **D** The toast does not have time to rotate fully after it falls from the plate.

6. Which sentence would be MOST important to include in a summary of the passage?

- ◯ **A** Robert Matthews first used toast-sized wood for his experiments.
- ◯ **B** Marc Abrams created the lg Nobel Prize to award outlandish feats.
- ◯ **C** Three hundred and fifty people attended the first lg Nobel Prize Ceremony.
- ◯ **D** Two people must constantly sweep the stage at the lg Nobel Prize Ceremony.

7. Which feat would be MOST LIKELY to win an lg Nobel Prize?

- ◯ **A** discovering that beetles are fussy eaters
- ◯ **B** discovering a new moon for one of the planets
- ◯ **C** discovering that a common plant can be used to treat cancer
- ◯ **D** discovering a new energy source that is safe for the environment

8. Which is the BEST word to describe the lg Nobel Prize Ceremony?

- ◯ **A** formal
- ◯ **B** playful
- ◯ **C** disciplined
- ◯ **D** traditional

9. Look at the diagram in the passage on page 7. If the table were doubled in height, how would the appearance of the toast need to change?

- A The toast would not fall from the table.
- B The toast would flip over twice before landing.
- C The toast would rotate completely before landing.
- D The toast would break into pieces when it landed.

10. Which quality is MOST important for someone who accepts an lg Nobel Prize?

- A a good sense of humor
- B a good variety of interests
- C a strong desire to compete
- D a strong desire to help others

11. Which would be the BEST new title for this passage?

- A Mocking Scientific Achievement
- B Mark Abrahams, a Man with a Mission
- C Celebrating the Unusual and Imaginative
- D A Life Lesson: Learning to Laugh at Yourself

12. Which description identifies how "A Humorous Ceremony" is MAINLY organized?

- A a comparison of two things
- B a cause followed by its effects
- C a series of events in sequence
- D a problem followed by the solution

13. Several times in the passage, the author indicates information that is interesting but not essential by setting it off with

- A dashes.
- B bold type.
- C italic type.
- D parentheses.

14. What is the purpose of the diagram on page 7?

- ◯ **A** to compare two ideas
- ◯ **B** to explain how to do something
- ◯ **C** to support the content in the text
- ◯ **D** to present a new idea that is not in the text

15. This passage is the type of nonfiction meant to

- ◯ **A** tell a story.
- ◯ **B** inform or explain.
- ◯ **C** persuade the reader.
- ◯ **D** describe with sensory language.

Read the nonfiction passage "Does Gas Take Up Space?" Then answer questions 1 through 5.

Does Gas Take Up Space?

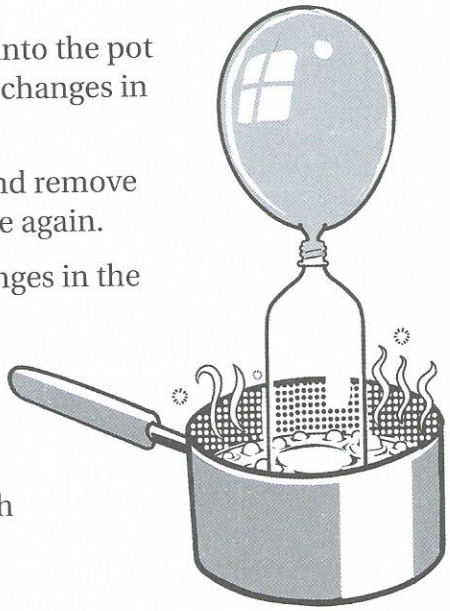
Use this experiment to investigate an interesting characteristic of gas.

Materials:

- balloon
- empty plastic bottle
- pot of hot water
- kitchen mitt
- funnel
- masking tape
- water
- bowl of ice water

Procedure:

1. Stretch the mouth of the balloon over the mouth of the bottle. Make sure there is a good seal around the top of the bottle.
2. Bring the pot of water to a boil. Carefully place the bottle into the pot of boiling water. ***Take care not to burn yourself!*** Note the changes in the balloon. Turn off the stove.
3. Using a kitchen mitt, take the bottle from the hot water and remove the balloon. Place the balloon over the mouth of the bottle again.
4. Put the bottle into the bowl of ice water and note the changes in the balloon.
5. Take the bottle from the ice water and let it rest at room temperature for 15 minutes. Remove the balloon from the top of the bottle.
6. Place the funnel in the mouth of the bottle and seal it with masking tape so that no air can escape.
7. Pour water into the funnel and watch what happens.



Explanation:

Air is a gas. When you heated the air in the bottle by putting the bottle in boiling water, the gas expanded. The only place it could go was into the balloon, so the balloon inflated. When you placed the bottle into the ice water, the air in the bottle was compressed. In this case, the air did not inflate the balloon—in fact, it pulled the balloon down into the bottle. When you returned the bottle to its normal temperature, the balloon returned to its original state. The funnel also shows that gas takes up space. By sealing the top of the bottle, you gave the air nowhere to go. The water you poured into the funnel wasn't heavy enough to compress the air, so the water stayed in the funnel. Gas definitely takes up space!

Reading Comprehension

Now answer questions 1 through 5 by filling in the circle next to the best answer.

1. Read these sentences from the passage.

> **When you heated the air in the bottle by putting the bottle in boiling water, the gas expanded. The only place it could go was into the balloon, so the balloon inflated.**

Which word is a synonym for *expanded*?

- ◯ **A** shrunk
- ◯ **B** swelled
- ◯ **C** escaped
- ◯ **D** separated

2. Which is the correct way to divide *temperature* into syllables?

- ◯ **A** tem-per-at-ure
- ◯ **B** temp-er-at-ure
- ◯ **C** tem-per-a-ture
- ◯ **D** temp-er-a-ture

3. Which sentence from the passage BEST tells what is happening in the diagram?

- ◯ **A** When you heated the air in the bottle by putting the bottle in boiling water, the gas expanded.
- ◯ **B** When you placed the bottle into the ice water, the air in the bottle was compressed.
- ◯ **C** When you returned the bottle to its normal temperature, the balloon returned to its original state.
- ◯ **D** By sealing the top of the bottle, you gave the air nowhere to go.

4. In Step 3, why is it necessary to remove the balloon and to replace it over the mouth of the bottle?

- ◯ **A** to check the bottle for cracks
- ◯ **B** to make sure that the balloon did not break
- ◯ **C** to allow all of the hot air to leave the balloon
- ◯ **D** to empty any liquid that might be in the bottle

5. What is one of the author's main purposes for writing this passage?

- ◯ **A** to explain how to do an experiment
- ◯ **B** to entertain with interesting facts about gas
- ◯ **C** to persuade the reader to do an experiment
- ◯ **D** to inform the reader about all of the characteristics of gas

Read the nonfiction passage "The Fertile Crescent and Mesopotamia." Then answer questions 1 through 15.

The Fertile Crescent and Mesopotamia

1 Imagine that you belong to a tribe of people who wander from place to place long ago. Tired of roaming, you want to settle down in one area. What would you look for in a place to call home? Surely you would look for land with water nearby, and you would need to be able to find or grow food. More than 7,000 years ago, people began to settle in an area that extends from the Persian Gulf to the Nile River Valley. This region is known as the Fertile Crescent because of its curved shape and its rich soil. Ancient Mesopotamia (MEHS-uh-puh-TAY-mee-uh) was located in a piece of the Fertile Crescent between the Tigris (TAHY-grihs) and Euphrates (yoo-FRAY-teez) rivers. The word *Mesopotamia* in Greek means "the land between two rivers." The region covered an area about 300 miles long and 150 miles wide.

2 The first settlers in Mesopotamia were very happy with the area. Natural plant life and wildlife kept them well fed. The rivers provided fresh drinking water and a place to bathe. The people came together in towns and small villages. They learned how to irrigate land and grow crops on large farms. In time, the towns grew into large cities. To keep order, the people created a government. To better communicate and keep records, they invented a form of writing. In this way, the first human civilization was formed. Who formed this first civilization? It was a people called the Sumerians (soo-MIHR-ee-uhn).

3 The Sumerians left Asia and came to Mesopotamia around 3500 B.C. They formed a number of large cities called city-states. Each city-state had its own government. It was headed by a ruler who controlled the city and surrounding land. These people also created a form of writing called **cuneiform** (kyoo-NEE-uh-form), which let them record their history on clay tablets. In fact, this is the oldest written language in history. The gifts of government and writing helped pave the way for future civilizations.

4 Later, Mesopotamia was home to the Akkadians (uh-KAY-dee-uhnz), who formed the first united empire under a single ruler. These people are known for their excellent sculptures. Their language replaced that of the Sumerians. It would be the main language of the area for a long time to come.

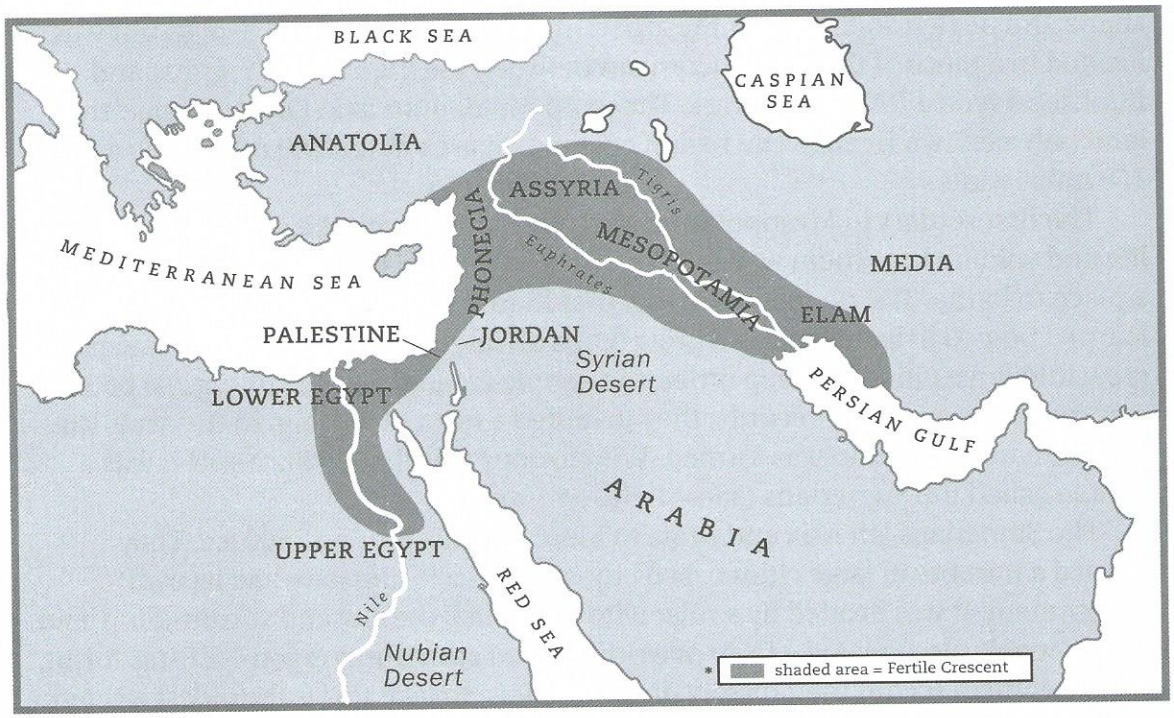
5 After the Akkadian Empire fell, the city-states began to weaken. In time a new leader rose to power and formed the Babylonian (bab-uh-LOH-nee-uhn) Empire. The Babylonians were the first to write down their system of law. The study of literature, history, and science flourished. The number system developed by the Babylonians was even more advanced than the one we use today. From these people, we gained modern astronomy and algebra. They also made advances in trade and banking.

continued on next page

6 Various other cultures controlled part or all of the Fertile Crescent. The Assyrians (uh-SIHR-ee-uhn) were a warlike society that came out of the north. They ruled much of the Middle East at different times throughout history. The biggest contributions of this society were related to war. No other power could match the quality of their weapons or their skill at warfare.

7 In later centuries, Mesopotamia was ruled by the Persians, the Romans, and the Ottoman (AWT-uh-muhn) Turks. The Ottoman rule lasted until the end of World War I. Since 1932, this land between the Tigris and Euphrates rivers has been part of the modern nation of Iraq.

8 The Fertile Crescent is called "the Cradle of Civilization"—a fitting title. What is this area like today? Sadly, the wetlands of the region are almost completely gone. This is due to widespread damming of the Tigris and Euphrates rivers and heavy draining of the river basin. No longer does plant life thrive in this region. The once lush area is now mostly dry plains of sunbaked clay.



Reading Comprehension

Now answer questions 1 through 15 by filling in the circle next to the best answer.

1. Read these sentences from paragraph 1 of the passage.

> **More than 7,000 years ago, people began to settle in an area that extends from the Persian Gulf to the Nile River Valley.**

Which definition from the following dictionary entry fits the way *extends* is used above?

> **extend** (ek stend´) *verb* **1** to make longer **2** to hold out **3** to offer or give **4** to continue or stretch

- ◯ **A** definition 1
- ◯ **B** definition 2
- ◯ **C** definition 3
- ◯ **D** definition 4

2. The word *communicate* is spoken with extra stress on the

- ◯ **A** first syllable.
- ◯ **B** second syllable.
- ◯ **C** third syllable.
- ◯ **D** fourth syllable.

3. Read these sentences from paragraph 8 of the passage.

> **No longer does plant life thrive in this region. The once lush area is now mostly dry plains of sunbaked clay.**

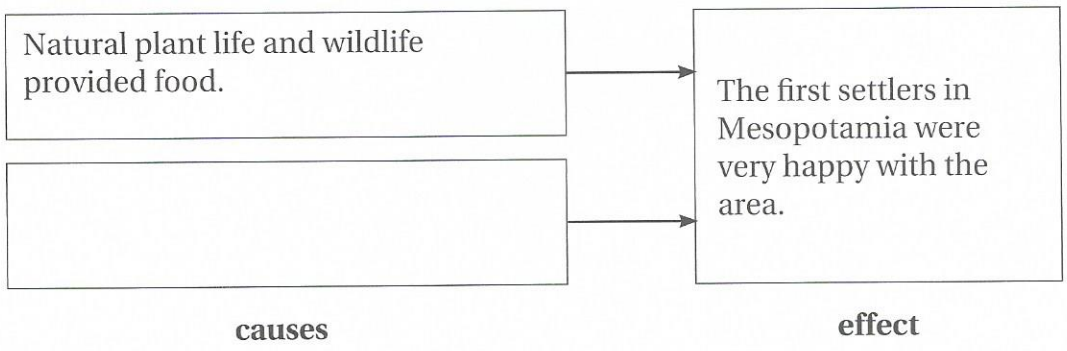
What does the word *lush* mean?

- ◯ **A** difficult to farm
- ◯ **B** supporting wildlife
- ◯ **C** growing thick and green
- ◯ **D** able to grow only desert plants

4. What is the prefix in *replaced*?

- ◯ **A** re
- ◯ **B** place
- ◯ **C** lace
- ◯ **D** ed

5. Read the cause-and-effect chart below.



Which statement belongs in the empty box?

- ◯ **A** To keep order, the people created a government.
- ◯ **B** The people came together in towns and small villages.
- ◯ **C** To keep records, the people invented a form of writing.
- ◯ **D** The rivers provided fresh drinking water and a place to bathe.

6. From looking at the map, you can tell that the Fertile Crescent included

- ◯ **A** Assyria.
- ◯ **B** Anatolia.
- ◯ **C** the Black Sea.
- ◯ **D** the Caspian Sea.

7. Based on the information in the passage and the map, which statement BEST explains why the Fertile Crescent was good for farming?

- ◯ **A** It contained three rivers that could be used to irrigate the land.
- ◯ **B** It could obtain water from the runoff of two large mountain ranges.
- ◯ **C** It was far away from any desert area that would provide little rainfall.
- ◯ **D** It bordered on five seas that could be used to transport harvested crops.

8. According to the passage, what systems or features of culture are most basic and necessary to form a civilization?

- ◯ **A** modern astronomy and plentiful food
- ◯ **B** excellent sculpture and fine literature
- ◯ **C** written language and organized government
- ◯ **D** quality weapons and an advanced number system

9. What would be another appropriate title for this passage?

- ◯ **A** The Persian Gulf Throughout History
- ◯ **B** The Contributions of the Babylonians
- ◯ **C** The Mighty Tigris and Euphrates Rivers
- ◯ **D** The Birth of Civilization in the Middle East

10. Which word below gives a good description of the Babylonians?

- ◯ **A** hostile
- ◯ **B** inventive
- ◯ **C** cautious
- ◯ **D** unimportant

11. Using information in the passage to make an inference, which group of people was likely to be the first to use iron in spears, swords, shields, and armor?

- ◯ **A** Sumerians
- ◯ **B** Akkadians
- ◯ **C** Assyrians
- ◯ **D** Persians

12. The author probably intended for the writing in this passage to be

- ◯ **A** exciting.
- ◯ **B** emotional.
- ◯ **C** humorous.
- ◯ **D** interesting.

13. What is the main pattern of organization in this passage?

- ◯ **A** chronological order
- ◯ **B** problem and solution
- ◯ **C** cause and effect
- ◯ **D** order of importance

14. Which word BEST describes the author's style?

- ◯ **A** informal
- ◯ **B** flowery
- ◯ **C** rambling
- ◯ **D** instructive

15. You can tell from the passage that the author thinks

- ◯ **A** there would be no banking today if it had not been for the Babylonians.
- ◯ **B** the damming of the rivers and draining of the river basin was unfortunate.
- ◯ **C** the Assyrians made more contributions to civilization than the Sumerians.
- ◯ **D** there were better places in the Fertile Crescent to settle than Mesopotamia.