8th Grade Worksheet Bundle:

Printable worksheets that include multiple subjects from a variety of our online solutions, including Study Island, EducationCity, and ReadingEggs
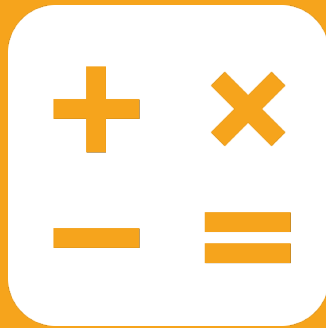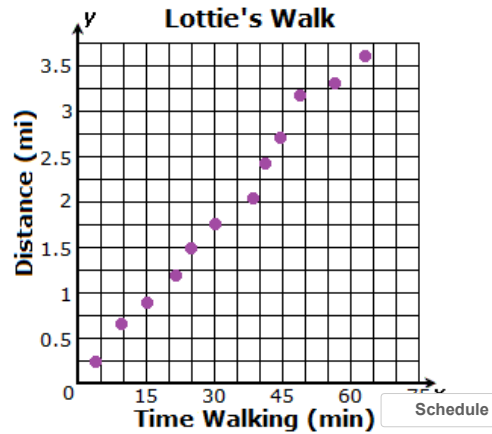
Math Activities

Study Island 8th Grade Math - Scatter Plots

Question 1 .

The scatter plot below shows the distances Lottie traveled on different morning walks.

Lottie's Walk

Which type of association best describes the relationship between the times Lottie walked and the distances she traveled?

- **A.** positive and negative association
- **B.** positive association
- **C.** negative association
- **D.** no association

Question 2 .

Which of the following best describes the relationship between the variables on the scatter plot below?
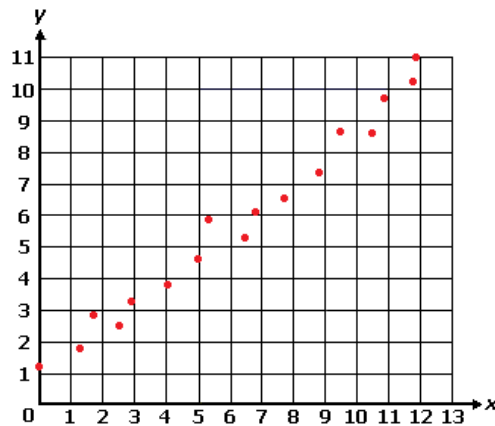
- **A.** nonlinear association
- **B.** linear and nonlinear association
- **C.** linear association
- **D.** no association

Question 3 .

Five members of a punk band were at the local skatepark, signing autographs. The table below shows the number of autographs signed by each band member during the first hour. Which scatter plot matches the table?

Band Member	Autographs
1	20
2	25
3	15
4	20
5	15

Park Signing

W.

Park Signing

X.

Park Signing

Y.

Park Signing

Z.
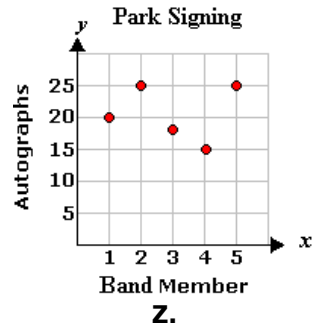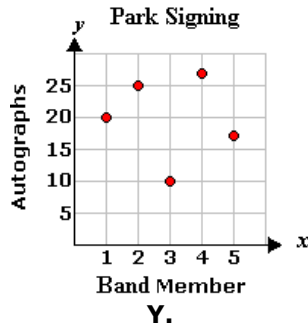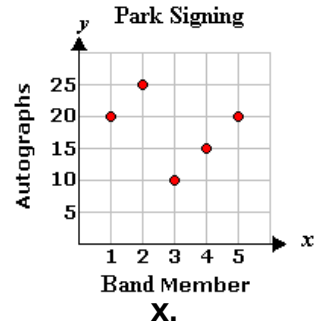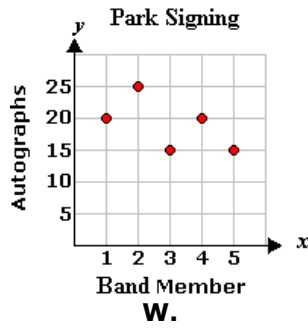
- A.   W
- B.   Z
- C.   Y
- D.   X

Question 4 .

At an amusement park, a lemonade stand was next to a roller coaster.

Throughout the day, people who got off the ride and purchased lemonade were asked how long they had to wait in line for the roller coaster. The results are shown in the scatter plot below.

Lemonade Sales
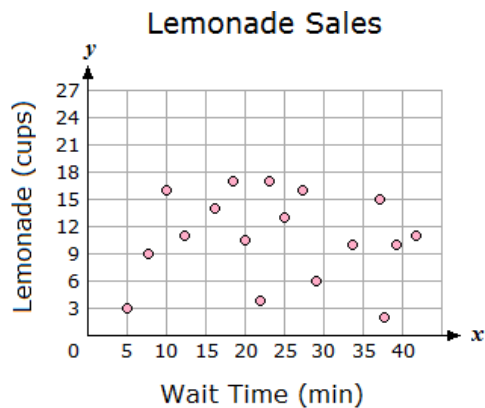
Wait Time (min)

Which statement is supported by the data in the scatter plot?

○ **A.** As the wait time increases, the number of cups of lemonade sold tends to increase.

○ **B.** There is no relationship between the wait time and the number of cups of lemonade sold.

○ **C.** As the wait time increases, the number of cups of lemonade sold tends to stay the same.

○ **D.** As the wait time increases, the number of cups of lemonade sold tends to decrease.

Question 5 .

Which of the following best describes the relationship between the variables on the scatter plot below?
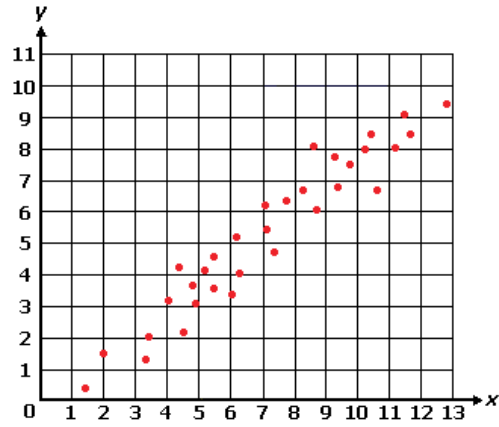

- A.   non-linear association

- B.   linear and non-linear association

- C.   linear association

- D.   no association

Question 6 .

At a children's archery camp, the percentage of target hits at different distances from the target for several students were recorded. The data is shown in the scatter plot below.

Target Practice
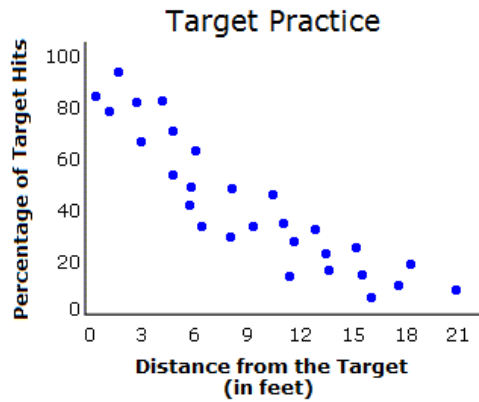
Which of the following can be interpreted from this data?

- **A.** There is both a positive and a negative association between the distance from the target and the percentage of target hits.

- **B.** There is no association between the distance from the target and the percentage of target hits.

- **C.** There is a negative association between the distance from the target and the percentage of target hits.

- **D.** There is a positive association between the distance from the target and the percentage of target hits.

Question 7 .
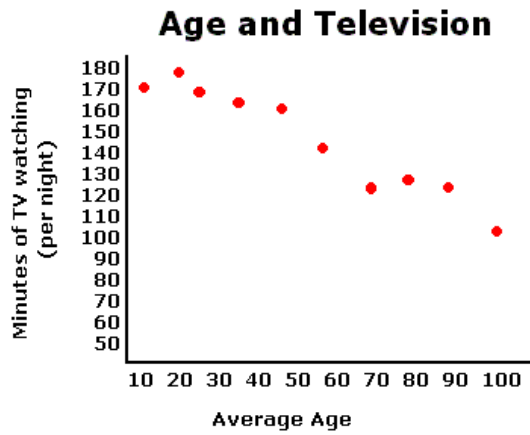
Age and Television

What can be concluded from the scatter plot above?

- **A.** The older a person gets, the less television he or she watches.
- **B.** There is no relationship between age and television watching.
- **C.** The older a person gets, the more television he or she watches.
- **D.** As a person gets older, their taste in television shows changes.

Question 8 .

Ashley counted the students in each of her classes on Friday. The table below shows the number she counted each period. Which scatter plot matches the table?

Class Periods	Number of Students
1	20
2	15
3	26
4	12
5	15
6	25
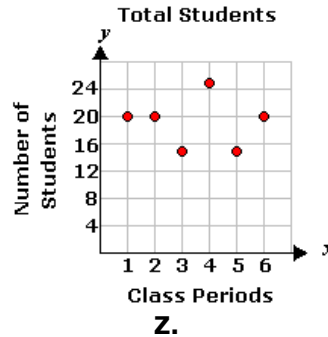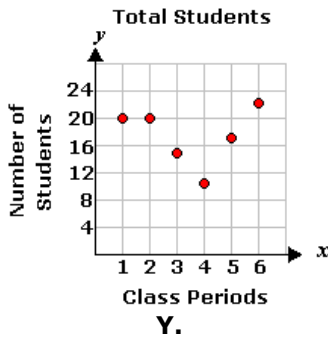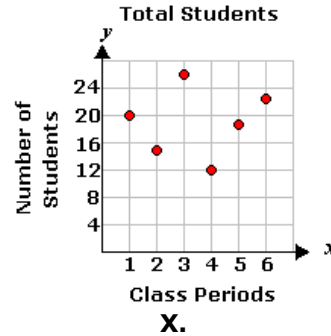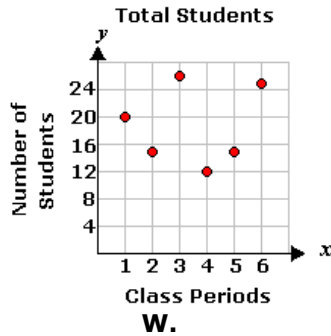
- **A.** W
- **B.** X
- **C.** Y
- **D.** Z

Question 9 .

Which of the following best describes the relationship between the variables on the scatter plot below?
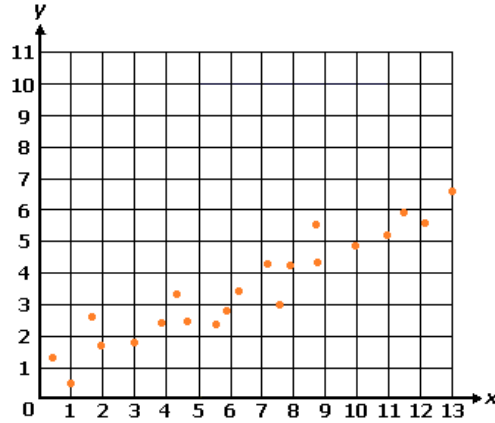
- A.   positive association

- B.   positive and negative association

- C.   no association

- D.   negative association

Question 10 .

Directions: Select the correct text in the table.

The scatter plot shows the average monthly temperature outside and the cost of the natural gas bill for a business over 20 months.
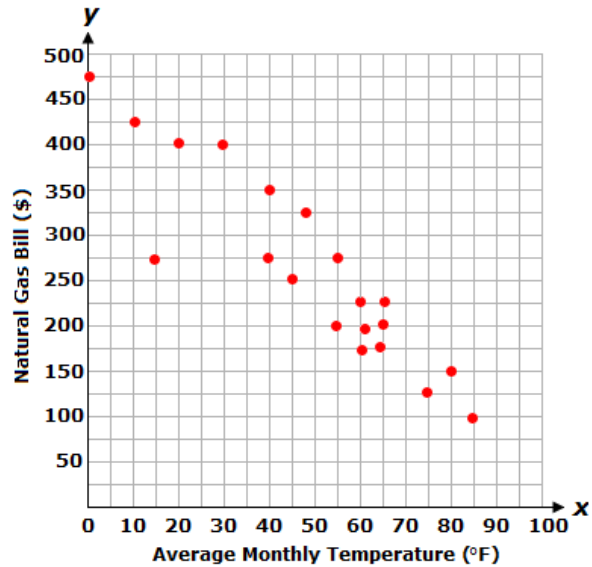
Decide whether the statement in each row is true or false.

There is a cluster around the point (60 , 200).	True	False
There is an outlier at the point (15 , 275).	True	False
The data shows a positive association between the average monthly temperature and the natural gas bill.	True	False
The scatter plot shows a non-linear association between the average monthly temperature and the natural gas bill.	True	False

Answers: Math - Scatter Plots

1. B
2. C
3. A
4. B
5. C
6. C
7. A
8. A
9. A
10. --

Explanations: Math 7 Scatter Plots

1. If a best-fit line were drawn to represent the data in the scatter plot, it would show that as the times Lottie walked increased, the distances she traveled increased.

   So, there is a **positive association** between the times she walked and distances.

2. The data in the scatter plot follows the shape of a line.

   Therefore, there is a **linear association** between the variables on the scatter plot.

3. To determine which scatter plot matches the table, choose any of the points from the table and plot them on the graphs. The *Band Member* will be the *x*-value and the *Autographs* will be the *y*-value.

   For example, choose the points (1, 20), (2, 25), (3, 15), and (4, 20).

   The only scatter plot that contains these points is **W**.

4. The length of the wait time is shown on the *x*-axis. The number of cups of lemonade is shown on the *y*-axis.

   There is no trend in this graph. The dots do not appear to make a line in one direction or another.

   Therefore, **there is no relationship between the wait time and the number of cups of lemonade sold**.

5. The data in the scatter plot follows the shape of a line.

   Therefore, there is a **linear association** between the variables on the scatter plot.

6. Distance from the target (in feet) is shown on the horizontal axis. Percentage of target hits is shown on the vertical axis. As the distance from the target increased, the percentage of target hits decreased.

   The dots on the scatter plot go down and to the right. This indicates a negative association.

   Therefore, **there is a negative association between the distance from the target and the percentage of target hits**.

7. Age is shown on the *x*-axis. Amount of time spent watching television is on the *y*-axis. As the numbers increase on the *x*-axis, the numbers decrease on the *y*-axis.

   Therefore, it can interpreted from the scatter plot that **the older a person gets, the less television he or she watches**.

8. To determine which scatter plot matches the table, choose any of the points from the table and plot them on the graphs. The *Class Periods* will be the *x*-value and the *Number of Students* will be the *y*-value.

   For example, choose the points (1, 20), (2, 15), (3, 26), and (4, 12).

   The only scatter plot that contains these points is **W**.

9. As the *x*-values of the data set increase, the *y*-values of the data set tend to increase.

   Therefore, there is a **positive association** between the variables on the scatter plot.

10. A cluster is data that are grouped closely together. There is a group of data points grouped closely around (60 , 200). So, the first statement, "there is a cluster around the point (60 , 200)", is **true**.

An outlier is a point that is far away from the rest of the data. Thus, the second statement, "there is an outlier at the point (15 , 275)", is **true**.

Based on the data, as the average monthly temperature increases, the business's natural gas bill decreases. So, the data shows a negative association. Therefore, the third statement that "the data shows a positive association between the average monthly temperature and the natural gas bill" is **false**.

In the given scatter plot, the graph of best fit is a straight line. So, the scatter plot shows a linear association between the average monthly temperature and the business's natural gas bill. So, the last statement that "the scatter plot shows a non-linear association between the average monthly temperature and the natural gas bill" is **false**.

Angles in Triangles

Find the measure of the unknown angle in each of the triangles.

1. If m∠1 = 40° and m∠2 = 80°, what is m∠3?

2. If m∠1 = 50° and m∠2 = 75°, what is m∠3?

3. If m∠1 = 50° and m∠2 = 80°, what is m∠3?

4. If the complement of ∠1 is 80° and m∠2 = 80°, what is m∠3?

5. If the supplement of ∠2 is 110° and the complement of ∠3 is 60°, what is m∠1?

6. If the supplement of ∠1 is 80° and m∠2 = 70°, what is m∠3?

7. If the supplement of ∠1 = 40° and m∠2 = 30°, what is m∠3?

8. If the complement of ∠1 = 60° and m∠2 = 80°, what is m∠3?

9. If m∠1 = 80° and the complement of m∠2 = 70°, what is m∠3?

10. If the supplement of ∠2 is 70° and m∠3 = 30°, what is m∠1?

Answer Key

1. [180° - (80° + 40°) = **60°**]

2. [180° - (50° + 75°) = **55°**]

3. [180° - (50° + 80°) = **50°**]

4. [m∠1 = 90° - 80° = 10°; m∠3 = 180° - (10° + 80°) = **90°**]

5. [m∠2 = 180° - 110° = 70°; m∠3 = 90° - 60° = 30°; m∠1 = 180° - (70° + 30°) = **80°**]

6. [m∠1 = 180° - 80° = 100°; m∠3 = 180° - (100° + 70°) = **10°**]

7. [m∠1 = 180° - 40° = 140°; m∠3 = 180° - (140° + 30°) = **10°**]

8. [m∠1 = 90° - 60° = 30°; m∠3 = 180° - (30° + 80°) = **70°**]

9. [m∠2 = 90° - 70° = 20°; m∠3 = 180° - (80° + 20°) = **80°**]

10. [m∠2 = 180° - 70° = 110°; m∠1 = 180° - (110° + 30°) = **40°**]

Exponents, Squares & Cubes

Write an equivalent expression for each of these expressions.

1. $2x + 4y + 7x^2 - 6y$ _____

2. $2x^2(4x^2 + 2x)$ _____

3. $x(x^2 + x - 1) - x^2$ _____

4. $y^2(x^2 + 1)$ _____

5. $x^2(x^2 + 1)$ _____

Find the square root of each of the following.

6. 4   _____

7. 25   _____

8. 81   _____

9. 144   _____

10. 196   _____

11. 625   _____

12. 10,000   _____

13. 1   _____

14. 56.25   _____

15. 100   _____

Find the cube root of each of the following.

16. 8   _____

17. 125   _____

18. 64   _____

19. 343   _____

20. 216   _____

21. 3.375   _____

22. 1,000   _____

23. 1,000,000 _____

Answer Key

1. $7x^2 + 2x - 2y$

2. $8x^4 + 4x^3$

3. $x^3 - 1$

4. $x^2y^2 + 1$

5. $x^4 + x^2$

6. 2

7. 5

8. 9

9. 12

10. 14

11. 25

12. 100

13. 1

14. 7.5

15. 10

16. 2

17. 5

18. 4

19. 7

20. 6

21. 1.5

22. 10

23. 100

Reading and Literacy

Study Island 8th Grade Reading - Meaning and Tone

Question 1 .

When my mother died I was very young,
And my father sold me while yet my tongue
Could scarcely cry 'weep! 'weep! 'weep! 'weep!
So your chimneys I sweep, and in soot I sleep.
from "The Chimney Sweeper" by William Blake

What is the mood of the stanza?

- **A.** grim
- **B.** timid
- **C.** daring
- **D.** light

Question 2 .

Italian Girl: Hi, my name is Maria, and I'm new at this school. I just moved here from Italy.

American Girl: Hi, I'm Katie. Tell me something about your country. Do you and your friends like to eat pizza?

Italian Girl: Yes, we really like pizza, but we like many other things, too. My mom makes all kinds of pasta, like rigatoni, and cannelloni, and ravioli.

American Girl: Do you have big cities in your country?

Italian Girl: Oh, yes. We have many big cities. Rome is the capitol of Italy. Other big cities are Naples, Florence, and Sorrento.

American Girl: Well, I'm glad you're in the United States now. Let's go to my house and get a snack.

What mood is **best** reflected in this skit?

- **A.** welcoming
- **B.** troubled
- **C.** humorous
- **D.** argumentative

Question 3 .

My Baby Sister
by A. Gautam

Fresh like morning dew
On a new leaf that has just sprung
After the longest winter
She rests on the leaf of the blanket
—pink as her soft cheeks
And blossoms in her sleep
Unaware of the world that has turned
Upside down because of her
And only for her

The author's tone in this poem can be **best** described as

- **A.** confused.

- **B.** sentimental.

- **C.** humorous.

- **D.** apathetic.

Question 4 .

Mammals of the Ice Age
adapted from the National Park Service

During the last Ice Age, the oceans were 300 feet lower than today. The floor of the Bering Sea became a bridge of dry land connecting Russia with Alaska. The climate of this land bridge was extremely dry and windy. Snow could not accumulate into the piles needed to form large ice sheets. The Bering Land Bridge was mostly ice free during the last Ice Age! It became a natural travel corridor for a great diversity of life, creating a community unlike anything today. For these species, the Bering Land Bridge was not just a temporary bridge between continents, but also a permanent part of their world.

Ice Age mammals were probably something to reckon with, says National Park Service archeologist David Anderson. "They would've been pretty impressive," he says. There were saber tooth tigers, short faced bears, wolves, and bison. An extinct form of the species, Bison Antiquitus, roamed the southeastern lowlands. It was likely a primary source of food and raw materials for the region's first inhabitants.

Archaelogists have discovered other remains from Ice Age mammals in the United States. The skull of a Bison Antiquitis was found in Florida's Wacissa River. It had a projectile point broken off in its forehead. This was just about the clearest association possible between humans and the now-extinct animals of the era.

At Little Salt Springs, also in Florida, a giant land tortoise was discovered. Scientists think it may have been speared with a wooden stake. Butchering or other tooling marks on mammoth bones, as well as finished points, foreshafts, and other objects carved from green bone or ivory, have been found at several places in the state.

Remains of essentially modern animals have been recovered at a number of later early American sites. These remains are usually found in rock shelter settings like Dust Cave and the Stanfield-Worley bluff shelter in Alabama.

Directions: Select ALL the correct answers.

Read the sentence from the passage.

Ice Age mammals were probably something to reckon with, says National Park Service archeologist David Anderson.

Which **two** words **best** represent the tone of this sentence?

- fearful

- awesome

- depressing

- disturbing

- informative

Question 5 .

Half Full

A rainy day will go away.
A failing grade can soon be raised.
A nasty cut in time will shut.
A dire year will disappear.

What word below **best** describes the tone of this poem?

- **A.** powerful

- **B.** cynical

- **C.** melancholic

- **D.** optimistic

Question 6 .

Even the day had taken on an eerie feeling. The night before the game, a steady, cold rain fell in Fayetteville, Arkansas. An icy fog hovered over the stadium as the crowd awaited the arrival of President Richard Nixon, who would award a plaque symbolic of the National Championship to the winner.

What is the mood of this passage?

- **A.** comical but peaceful

- **B.** scary or frightening

- **C.** sad and depressing

- **D.** expectant yet solemn

Question 7 .

I place my groceries on the conveyor belt and make sure that I have grabbed everything on my shopping list. It's close to dinner time, and my stomach is already starting to growl. I cannot wait to prepare a quick meal of spaghetti and meatballs. I start tapping my feet. Can't this line move any faster?

I reach into my purse to grab my wallet, but surprisingly, my hand does not wrap around the familiar bulk. I dig frantically, but it's no use. My wallet is gone! I hastily tell the cashier my situation and hightail it out of there. Grabbing my cell phone, I call my credit card company to check the activity on it.

"Thank you for calling MasterCard. This is Cindy. How can I help you?"

"I can't find my wallet! Will you check the activity on my account, please?!"

"Yes, of course. Just give me a second while I run the request. Can I put you on hold please?"

"Do I have a choice?!" I mumble to the music on hold.

"Ma'am? Someone has just made a purchase at Peggy's Nail and Spa."

My mouth drops as the news sinks in. Nancy is the only person I know who goes there and the only person who has easy access to my purse!

 I cannot BELIEVE the nerve of that woman! I give her a place to stay, let her borrow $500, help her look for a job, and how does she thank me?! She steals my identity! I am going to make her PAY!!!

What is the mood of paragraph 1?

○ **A.**   impatient

○ **B.**   hopeful

○ **C.**   melancholic

○ **D.**   threatening

Question 8 .

The Boston Tea Party

The event that came to be known as the Boston Tea Party occurred on the night of December 6, 1773. The "party" began when a group of men from Boston disguised themselves as Native Americans and climbed aboard the British merchant ship *Dartmouth* in the Boston harbor. The group's aim was to destroy the ship's cargo of tea. The disguised Americans threw 342 chests of tea into the sea. As a result, the British suffered losses estimated between ten to eighteen thousand pounds. The Boston Tea Party began a series of protests that eventually began the American Revolution.

What is the tone of this passage?

- ○ **A.** rebellious
- ○ **B.** informational
- ○ **C.** persuasive
- ○ **D.** informal

Question 9 .

The room was hushed. All one could hear was the rhythmic breathing of the surgical team and the beeping machines. Beads of sweat formed on the surgeon's brow. He and his team were working diligently to remove the remains of a tumor. He kept his hands steady and carefully maneuvered his knife. One mistake could cost him his patient's life. He did not want to rupture a blood vessel. He did not want to slice a nerve.

What is the mood of the passage?

- ○ **A.** cautious
- ○ **B.** sinister
- ○ **C.** threatening
- ○ **D.** heart-breaking

Question 10 .

Directions: Select the correct text in the passage.

Which two phrases in the passage **best** convey an excited tone?

If I Could Go Back in Time

Human history is generally divided up into several different eras. Each of these ages is memorable because of its own unique characteristics. If I could go back in time, I would choose to go back to the Elizabethan era. This period, from 1558 to 1603, gets its name from England's Queen Elizabeth I. The Elizabethan era is known as the "Golden Age" of literature. To experience the plays and the poetry, as well as the people, the food, and the events of that period would be awfully fascinating.

The Elizabethan era is considered an age where arts, like theatre and poetry, bloomed. The Globe Theatre was built during this time and it hosted plays written by William Shakespeare. It would be a dream come true for me to sit amongst the Elizabethan crowd and watch Shakespeare's plays like *Othello* or *Macbeth* performed for the very first time.

Another reason why I would like to go back to this period is to experience life under Queen Elizabeth's rule. She was a fair ruler who brought stability and prosperity to England. It was said that she knew several languages, including Latin, French, and Welsh. England saw great changes during her rule. She was a great supporter of art and literature. She also had a sense of style. Some of the gowns that she wore were very beautiful. I would love to dress myself in a similar outfit, but I don't think walking in them would be a piece of cake.

Answers: Reading - Meaning and Tone

1. A
2. A
3. B
4. --
5. D
6. D
7. A
8. B
9. A
10. --

Explanations: Reading - Meaning and Tone

1. The speaker in this poem is a young boy. His mother died, and his father sold him into slavery. He is now a chimney sweeper who sleeps in soot. The depressing story makes the reader feel grim.

2. In the skit, the girls are conversing in an informal way. Their greeting for each other is "Hi." They speak in a normal conversational tone. The American girl asks the Italian girl about her country and invites the new girl to her home. She speaks in a friendly, welcoming way to her new friend.

3. In this poem, the author describes the baby with tenderness. He or she does not use humor, and the poem's language does not reflect apathy or confusion. The author uses a sentimental tone or appeals to emotion and feelings in this poem.

4. The sentence "Ice Age mammals were probably something to reckon with, says National Park Service archeologist David Anderson" represents both an "awesome" tone and a "fearful" tone.

5. Read the poem carefully. Each line puts something negative in a positive light. For example, the third line says, "A nasty cut in time will shut." Getting a "nasty cut" is a negative occurrence, but the poet is being optimistic by saying that "in time" it "will shut"—or heal. The words the author uses indicate that he or she is setting a positive tone for the poem.

6. The crowd is awaiting a football game, so partly the mood is expectant. The description of the dreary weather adds a solemn cast to the passage. The word "eerie" alone sets an expectant yet solemn mood.

7. In the first paragraph of the passage, the narrator says, "I cannot wait to prepare a quick meal of spaghetti and meatballs. I start tapping my feet. Can't this line move any faster?" The character is hungry, and the line isn't moving fast enough; she is impatient to get home and eat. The mood of the text is "impatient." The text makes the reader sympathize with the character and feel impatient as well.

8. The passage presents facts and details about the historical event known as the Boston Tea Party. The passage explains why and how the Boston Tea Party occurred and does not give any opinions. Therefore, the tone of the passage is informational.

9. The surgeon must be very careful, or his patient could die. The passage says, "He kept his hands steady and carefully maneuvered his knife. One mistake could cost him his patient's life." This gives the passage a cautious mood.

10. The phrases "would be awfully fascinating" and "a dream come true" best convey an excited tone. The narrator is excited about the idea of seeing the plays, the people, and the events of the Elizabethan period, and sitting amongst the Elizabethan crowd and watching Shakespeare's plays.

Name: _____

Spelling

Circle the letter of the correct answer.

1. Which of the following words is spelled correctly?
   A. Golden   B. Damppen   C. Followwer   D. Paintte

2. Which of the following words is spelled correctly?
   A. Comfortable   B. Succesful   C. Believeable   D. Saden

3. Which of the following words is spelled correctly?
   A. Shortten   B. Beleiveed   C. Shopper   D. Invadder

4. Which of the following words is spelled correctly?
   A. Woodden   B. Likeable   C. Ruler   D. Looseen

5. Which of the following words is spelled correctly?
   A. Faten   B. Golfer   C. Believeable   D. Succesful

6. Which of the following words is spelled correctly?
   A. Collapseible   B. Trapper   C. Rober   D. Whiteen

7. Which of the following words is spelled correctly?
   A. Carfull   B. Peacful   C. Reversible   D. Pleasureable

8. Which of the following words is spelled correctly?
   A. Beautiful   B. Guilless   C. Exciteable   D. Clearley

9. Which of the following words is spelled correctly?
   A. Agreable   B. Allowwance   C. Assistent   D. Carelessness

10. Which of the following words is spelled correctly?
   A. Sunny   B. Guned   C. Stoping   D. Steped

edmentum

Answer Key

1. A

2. A

3. C

4. C

5. B

6. B

7. C

8. A

9. D

10. A

Multiple-Meaning Words

Read the sentence. Pick the choice that uses the bold word in the same way as the original sentence. Circle the letter of the best answer.

1. Lack of money **drove** Sally to sell her house.
    A. The blizzard drove Debbie to decide to stay home from work.
    B. Dad drove us to the mall, but Mom said she would take us home.
    C. The family drove three hours to see the ocean.
    D. My older sister drove me to the movies.

2. Matt **stroked** his dog's back to calm him down.
    A. The stroke left her paralyzed on the right side of her body.
    B. The man had a stroke and was not able to walk.
    C. The girl stroked her doll's hair.
    D. A stroke affects a person's brain functions.

3. Frank gave his wife **roses** for their anniversary.
    A. We watched as the balloons rose to the ceiling.
    B. Janet planted a rose garden.
    C. The sun rose slowly in the sky.
    D. The airplane rose off into the distance.

4. He tried with his **might** to lift the heavy desk, but it wouldn't budge.
    A. It took all her might to pry open the stuck window.
    B. An accident might happen if you're not paying attention to what you're doing.
    C. According to the weatherman, it might rain tomorrow.
    D. My mom said that she might take us to the movies this weekend.

5. The duck stuck his **bill** in the water.
    A. Our phone bill was due on the last day of the month.
    B. The eagle had a fish in its bill.
    C. Grandpa paid the bill at the restaurant.
    D. We were given a bill for our hotel room during our vacation.

6. The rain **pounded** on the ground.
    A. The baker pounded the dough for the bread.
    B. We need a pound of turkey to make the sandwiches.
    C. Kathy bought a pound of chocolate.
    D. I sent her a pound of fudge for her birthday.

7. We picked strawberries at the strawberry **patch**.
    A. The patch covered his knee.
    B. Grandma sewed a patch on my backpack.
    C. The farmer tended his pumpkin patch.
    D. We taped a patch over the hole in the cushion.

8. I placed the envelope in the mail **slot**.
    A. The employer was able to fill the slot in the accounting department.
    B. Who in the department is qualified to fill the administrative slot?
    C. Put the quarter in the slot of the vending machine.
    D. There is an open slot on the baseball team for next year.

9. The maid had to **strip** the beds when the guests left the room.
    A. I need to cut a strip of paper for my project.
    B. My mom told me to strip the wrapping off of the package.
    C. I needed only one strip of beef to give to the puppy.
    D. There is only a small strip of grass left in the yard.

10. Old cars were started by a **crank** in the front of the vehicle.
    A. When Jill turned the crank, the jack jumped out of the box.
    B. Mr. Wilson is a crank who likes to yell at his kids in the yard.
    C. My brother is a real crank when he doesn't get enough sleep.
    D. I can be the biggest crank when I am hungry.

Answer Key

1. A

2. C

3. B

4. A

5. B

6. A

7. C

8. C

9. B

10. A