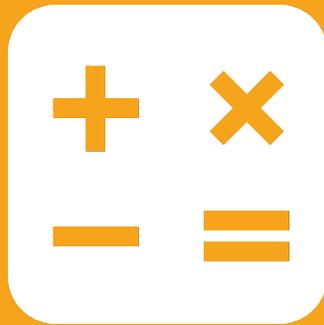


This packet was printed from a link provided for printable resources within the TDOE School Closure Toolkit.

## 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

# Scatter Plots

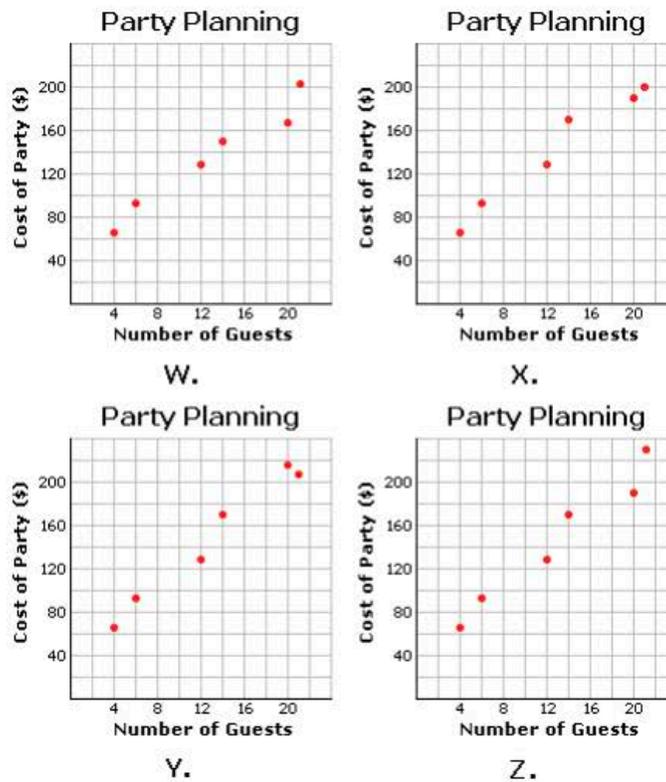
When representing data from a table on a **scatter plot**, match the data values to the coordinates of the points on the scatter plot.

## Example

Sabrina is planning a surprise birthday party for her sister. She collected information for the cost from different venues and different numbers of guests at the party. The table below shows the information she collected.

Number of Guests	4	14	6	21	20	12
Cost of Party (\$)	65	170	92	230	190	130

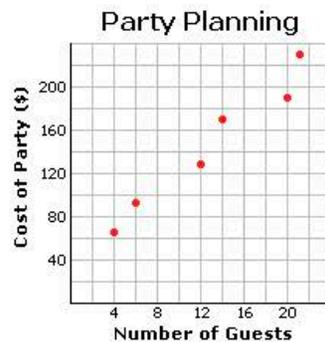
Which scatter plot below shows the same data?



## Solution

The points on the scatter plot will correlate to the data on the table.

While all of the scatter plots correctly plot some of the data, only scatter plot **Z** correctly plots all of the data.

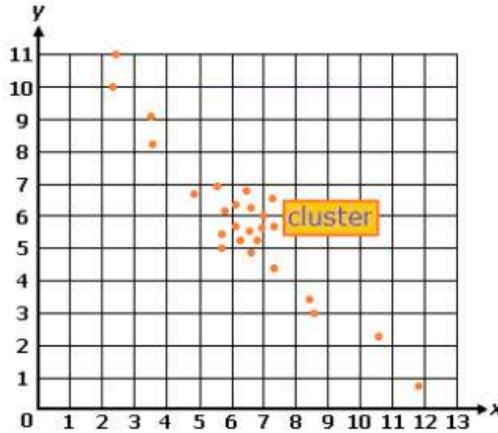


# Patterns in Scatter Plots

Patterns in bivariate data can be identified based on the relationship between points on a scatter plot.

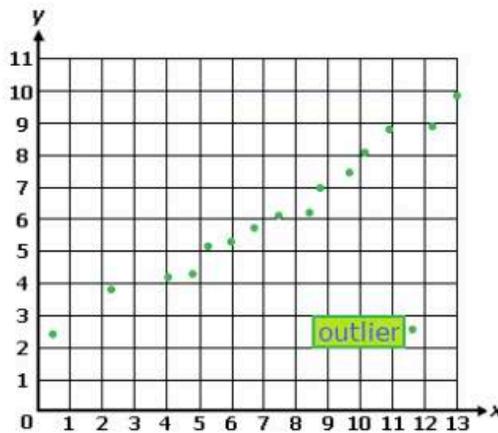
## Clustering

A **cluster** is data that are grouped closely together.



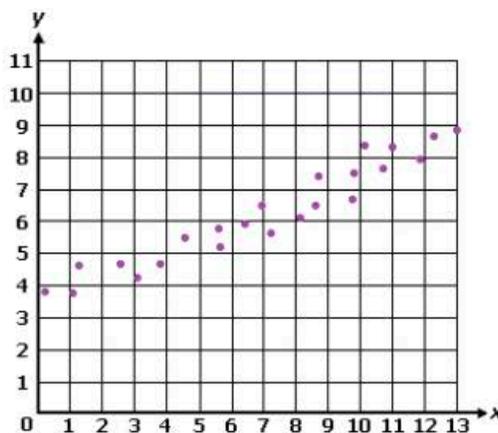
## Outliers

An **outlier** is a data value that is far removed from the rest of the data set.

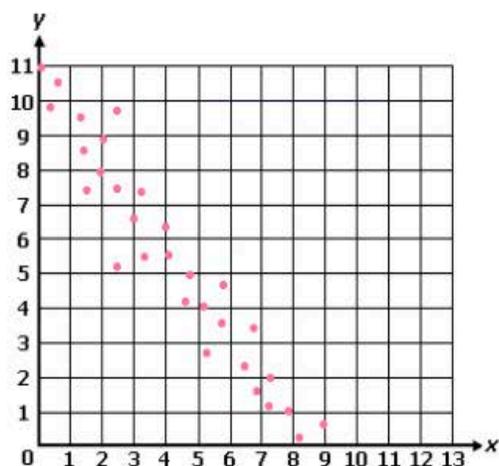


## Positive and Negative Association

If the  $y$ -values of a data set tend to increase as the  $x$ -values of the data set increase, there is a **positive association** between the variables on the scatter plot.

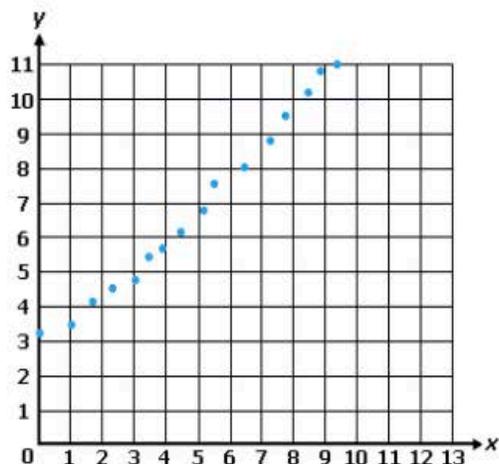


If the  $y$ -values of a data set tend to decrease as the  $x$ -values of the data set increase, there is a **negative association** between the variables on the scatter plot.

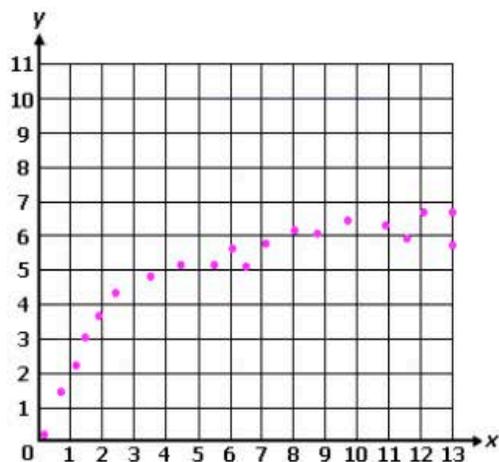


### Linear and Nonlinear Association

If the data in a scatter plot follows the shape of a line, there is a **linear association** between the variables on the scatter plot.



If the data in a scatter plot follows the shape of a function that is not a line, there is a **nonlinear association** between the variables on the scatter plot.

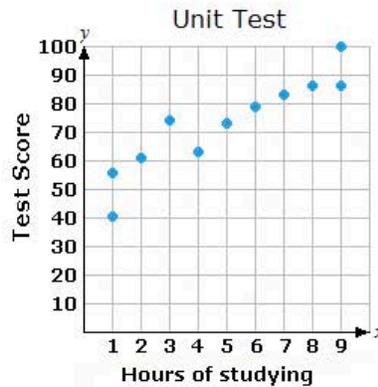


## Interpret Scatter Plots

*Scatter plots are used to examine two sets of data and to investigate the possible relationship between two quantities.*

### Example:

Ms. James asked each of her students how many hours they studied for the big unit test. The scatter plot below shows the number of hours the students studied, and the grades they earned on the test. What can be concluded from this data?



### Solution:

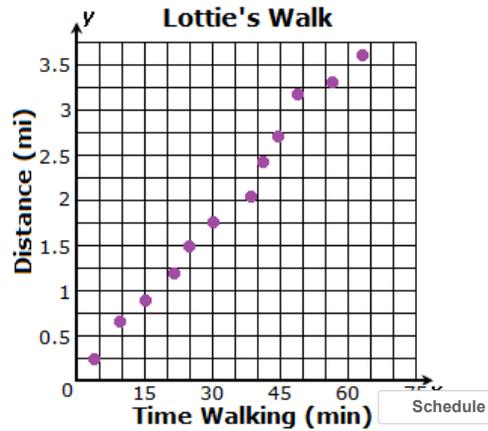
The number of hours the students studied are shown on the  $x$ -axis. The grades the students earned are shown on the  $y$ -axis. The grades earned had a tendency to increase as the number of hours the students studied increased.

Therefore, one possible conclusion is that **as the number of hours the students studied increased, the grades earned on the test increased.**

# Study Island 8th Grade Math - Scatter Plots

## Question 1 .

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

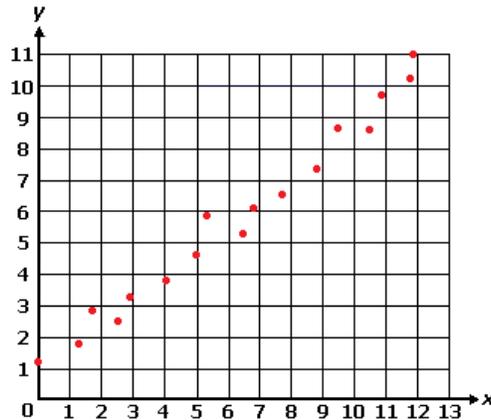


Which type of association best describes the relationship between the times Lottie walked and the distances she traveled?

- 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?

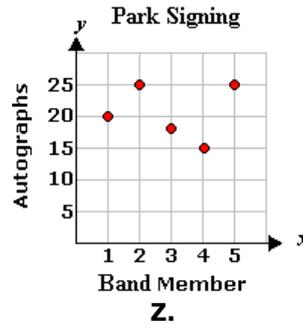
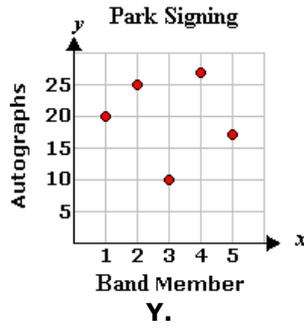
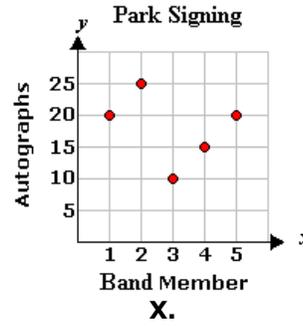
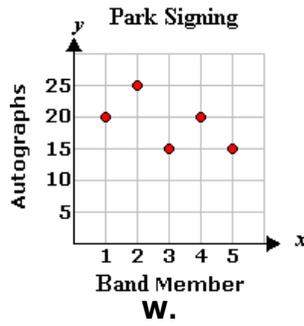


- A. nonlinear association
- B. linear and nonlinear association
- C. linear association
- D. no association

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

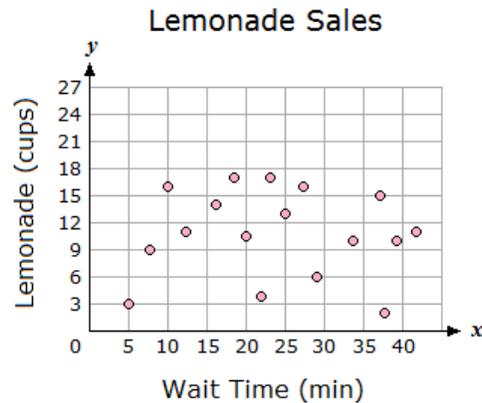


- A. W
- B. Z
- C. Y
- D. X

**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.

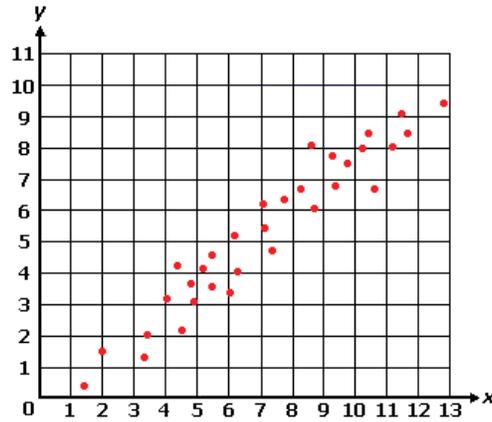


Which statement is supported by the data in the scatter plot?

- 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 .

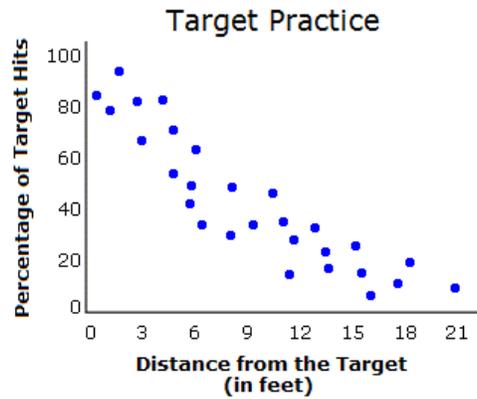
Which of the following best describes the relationship between the variables on the scatter plot below?



- A. non-linear association
- B. linear and non-linear association
- C. linear association
- D. no association

**Question 6 .**

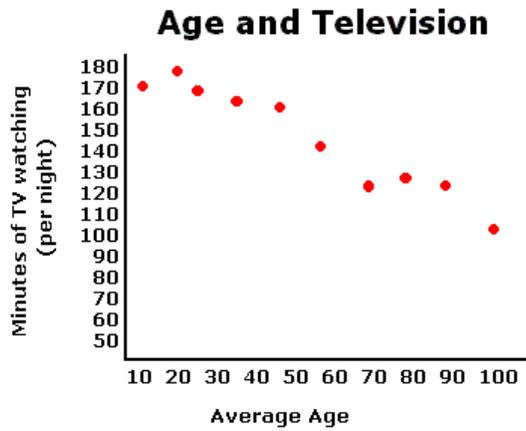
At a children's archery camp, the percentage of target hits at different distances from the target for several students were recorded. The data is shown in the scatter plot below.



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 .



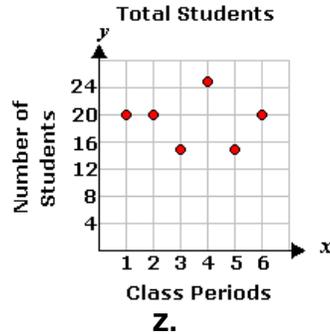
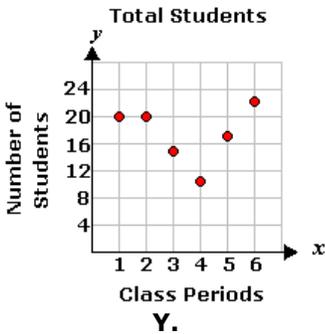
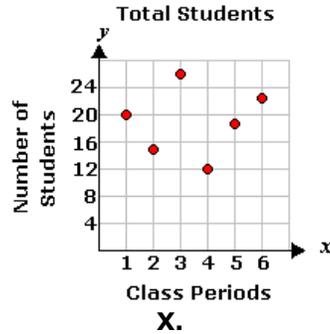
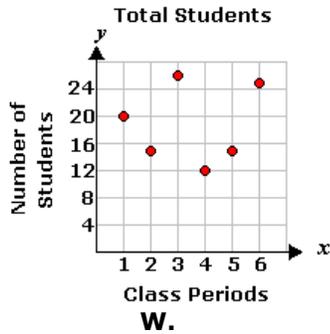
What can be concluded from the scatter plot above?

- 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?

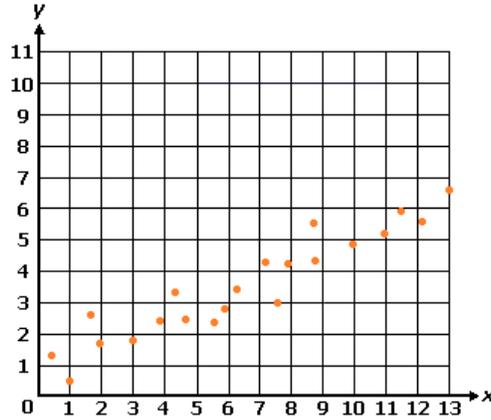
Class Periods	Number of Students
1	20
2	15
3	26
4	12
5	15
6	25



- 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?

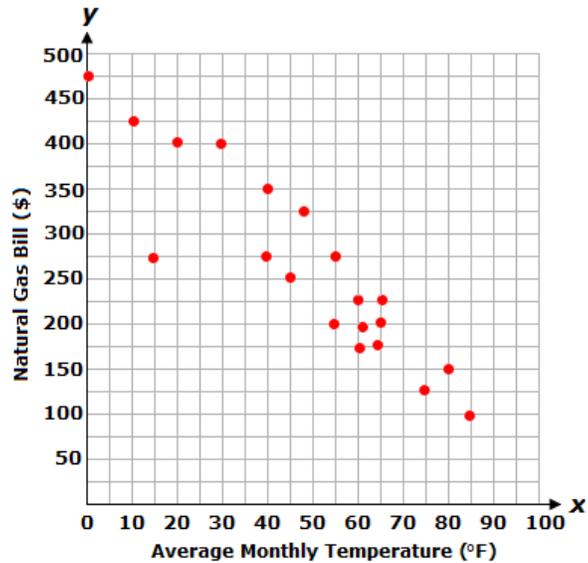


- A. positive association
- B. positive and negative association
- C. no association
- D. negative association

**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.

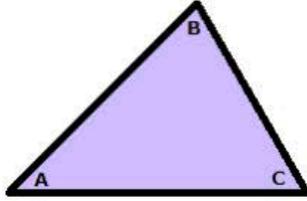
There is a cluster around the point (60 , 200).	True	False
There is an outlier at the point (15 , 275).	True	False
The data shows a positive association between the average monthly temperature and the natural gas bill.	True	False
The scatter plot shows a non-linear association between the average monthly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

## Sum of Angles in Triangle

The sum of the measures of the angles of a triangle always equals **180°**.

### Example:

If  $m\angle A$  equals  $50^\circ$  and  $m\angle B$  equals  $55^\circ$ , what is the measure of  $\angle C$ ?



### Solution:

The sum of the measures of the angles in a triangle always equals  $180^\circ$ .

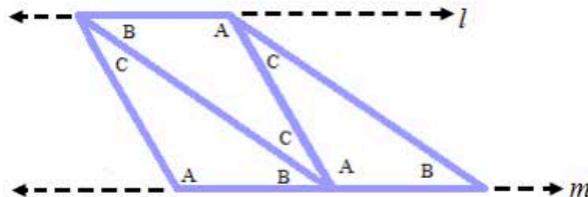
$$\begin{aligned}50^\circ + 55^\circ + m\angle C &= 180^\circ \\m\angle C &= 180^\circ - 55^\circ - 50^\circ \\m\angle C &= \mathbf{75^\circ}\end{aligned}$$

## Informal Triangle Angle Sum Proof

The **triangle angle sum** property states that the sum of the three angles in a triangle is always  $180^\circ$ .

### Example 1:

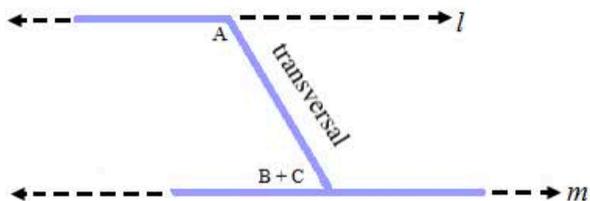
Three copies of the same triangle are shown below.



If the sum of angles B and C equals  $77^\circ$  and  $l$  and  $m$  are parallel, use a transversal of  $l$  and  $m$  to find the measure of angle A.

### Solution:

The sum of angles B and C and angle A form supplementary interior angles.



Supplementary angles are angles which sum to  $180^\circ$ , so  $m\angle A + m\angle B + m\angle C$  equals  $180^\circ$ .

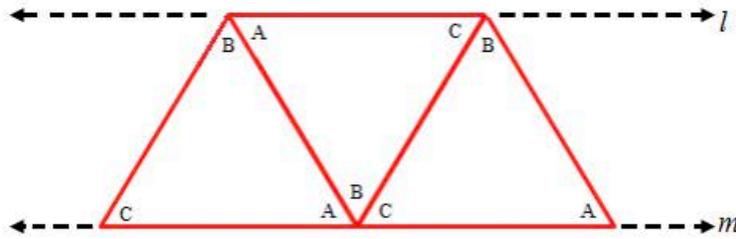
$$m\angle A + 77^\circ = 180^\circ$$

Therefore,  $m\angle A = 103^\circ$

This also explains why angles A, B, and C appeared to form a straight line in the first diagram. The sum of the measures of these angles equals  $180^\circ$ , or a straight angle.

**Example 2:**

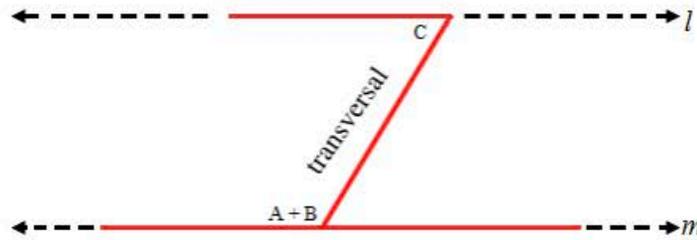
Three copies of the same triangle are shown below.



If the sum of angles A and B equals  $122^\circ$  and  $l$  and  $m$  are parallel, use a transversal of  $l$  and  $m$  to find the measure of angle C.

**Solution:**

The sum of angles A and B and angle C form supplementary interior angles.



Supplementary angles are angles which sum to  $180^\circ$ , so  $m\angle A + m\angle B + m\angle C$  equals  $180^\circ$ .

$$122^\circ + m\angle C = 180^\circ$$

Therefore,  $m\angle C = 58^\circ$

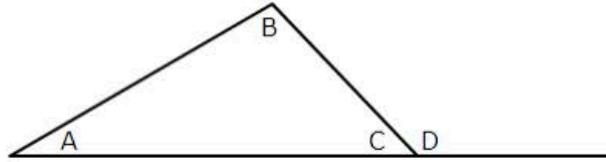
This also explains why angles A, B, and C appeared to form a straight line in the first diagram. The sum of the measures of these angles equals  $180^\circ$ , or a straight angle.

## Exterior Angles of Triangles

An exterior angle of a triangle is equal to the sum of the two interior angles that are not adjacent to that exterior angle.

### Find the measure of an exterior angle

In the figure below,  $m\angle A$  is  $38^\circ$ , and  $m\angle B$  is  $83^\circ$ .



Note: Figure not drawn to scale

What is  $m\angle D$ ?

#### Solution

In this case,  $\angle D$  is an exterior angle of the triangle, and  $\angle A$  and  $\angle B$  are the two interior angles that are not adjacent to  $\angle D$ . So, the measure of  $\angle D$  is equal to the sum of  $m\angle A$  and  $m\angle B$ .

$$\begin{aligned}m\angle D &= m\angle A + m\angle B \\ &= 38^\circ + 83^\circ \\ &= 121^\circ\end{aligned}$$

Therefore,  $m\angle D$  is  $121^\circ$ .

### Find the measure of an interior angle

The exterior angles of triangle FGH are  $\angle J$ ,  $\angle K$ , and  $\angle L$ , and they are adjacent to  $\angle F$ ,  $\angle G$ , and  $\angle H$ , respectively. If  $m\angle F$  is  $61^\circ$ , and  $m\angle L$  is  $124^\circ$ , what is  $m\angle G$ ?

#### Solution

In this case,  $\angle L$  is an exterior angle of triangle FGH. Since  $\angle L$  is adjacent to  $\angle H$ , it is not adjacent to  $\angle F$  and  $\angle G$ . So,  $m\angle L$  is equal to the sum of  $m\angle F$  and  $m\angle G$ .

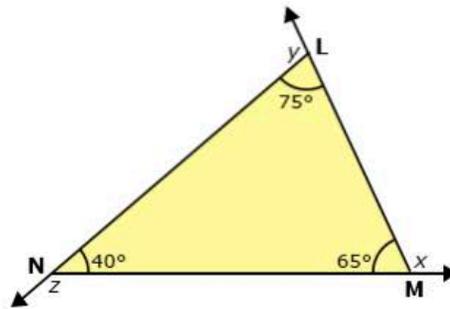
$$\begin{aligned}m\angle L &= m\angle F + m\angle G \\ 124^\circ &= 61^\circ + m\angle G \\ 63^\circ &= m\angle G\end{aligned}$$

Therefore,  $m\angle G$  is  $63^\circ$ .

## Sum of Exterior Angles in a Triangle

The sum of the exterior angles of a triangle is always  $360^\circ$ .

**Example:**



What is the sum of the exterior angles of triangle LMN?

**Solution:**

First, determine the measure of all the exterior angles,  $x$ ,  $y$ , and  $z$ , as shown below.

$$x + m\angle LMN = 180^\circ$$

$$x + 65^\circ = 180^\circ$$

$$x = 180^\circ - 65^\circ$$

$$x = 115^\circ$$

$$y + m\angle NLM = 180^\circ$$

$$y + 75^\circ = 180^\circ$$

$$y = 180^\circ - 75^\circ$$

$$y = 105^\circ$$

$$z + m\angle LNM = 180^\circ$$

$$z + 40^\circ = 180^\circ$$

$$z = 180^\circ - 40^\circ$$

$$z = 140^\circ$$

Now, add all the exterior angle measures.

$$\begin{aligned} x + y + z &= 115^\circ + 105^\circ + 140^\circ \\ &= 360^\circ \end{aligned}$$

Therefore, the sum of the exterior angles of triangle LMN is  **$360^\circ$** .

Name: \_\_\_\_\_

# Angles in Triangles

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

1. If  $m\angle 1 = 40^\circ$  and  $m\angle 2 = 80^\circ$ , what is  $m\angle 3$ ?
2. If  $m\angle 1 = 50^\circ$  and  $m\angle 2 = 75^\circ$ , what is  $m\angle 3$ ?
3. If  $m\angle 1 = 50^\circ$  and  $m\angle 2 = 80^\circ$ , what is  $m\angle 3$ ?
4. If the complement of  $\angle 1$  is  $80^\circ$  and  $m\angle 2 = 80^\circ$ , what is  $m\angle 3$ ?
5. If the supplement of  $\angle 2$  is  $110^\circ$  and the complement of  $\angle 3$  is  $60^\circ$ , what is  $m\angle 1$ ?
6. If the supplement of  $\angle 1$  is  $80^\circ$  and  $m\angle 2 = 70^\circ$ , what is  $m\angle 3$ ?
7. If the supplement of  $\angle 1 = 40^\circ$  and  $m\angle 2 = 30^\circ$ , what is  $m\angle 3$ ?
8. If the complement of  $\angle 1 = 60^\circ$  and  $m\angle 2 = 80^\circ$ , what is  $m\angle 3$ ?
9. If  $m\angle 1 = 80^\circ$  and the complement of  $m\angle 2 = 70^\circ$ , what is  $m\angle 3$ ?
10. If the supplement of  $\angle 2$  is  $70^\circ$  and  $m\angle 3 = 30^\circ$ , what is  $m\angle 1$ ?

Name: \_\_\_\_\_

# Exponents, Squares & Cubes

Write an equivalent expression for each of these expressions.

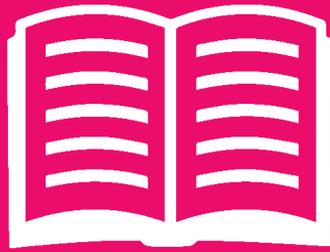
1.  $2x + 4y + 7x^2 - 6y$  \_\_\_\_\_
2.  $2x^2(4x^2 + 2x)$  \_\_\_\_\_
3.  $x(x^2 + x - 1) - x^2$  \_\_\_\_\_
4.  $y^2(x^2 + 1)$  \_\_\_\_\_
5.  $x^2(x^2 + 1)$  \_\_\_\_\_

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 \_\_\_\_\_



# 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.

Archaeologists have discovered other remains from Ice Age mammals in the United States. The skull of a *Bison Antiquitus* 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**.

Name: \_\_\_\_\_

# Spelling

Circle the letter of the correct answer.

- Which of the following words is spelled correctly?  
A. Golden      B. Dampnen      C. Followwer      D. Paintte
- Which of the following words is spelled correctly?  
A. Comfortable      B. Succesful      C. Believeable      D. Saden
- Which of the following words is spelled correctly?  
A. Shortten      B. Beleiveed      C. Shopper      D. Invadder
- Which of the following words is spelled correctly?  
A. Wooden      B. Likeable      C. Ruler      D. Looseen
- Which of the following words is spelled correctly?  
A. Faten      B. Golfer      C. Believeable      D. Succesful
- Which of the following words is spelled correctly?  
A. Collapseible      B. Trapper      C. Rober      D. Whiteen
- Which of the following words is spelled correctly?  
A. Carfull      B. Peaceful      C. Reversible      D. Pleasureable
- Which of the following words is spelled correctly?  
A. Beautiful      B. Guilless      C. Exciteable      D. Clearley
- Which of the following words is spelled correctly?  
A. Agreeable      B. Allowwance      C. Assistent      D. Carelessness
- Which of the following words is spelled correctly?  
A. Sunny      B. Guned      C. Stoping      D. Steped

# The Orchid's Secret

by Josh Adler



Deep in the jungles of Colombia there is a kind of flower that attracts bees with its unique perfume. The male bees store as much scent as possible from this particular flower on their hind legs. The male bees that collect the most scent attract the female bees to mate with them. In Venezuela there is a flower people collect for its large white or yellow petals. Few people ever find it, though, since it only blooms for a few days. There is a small pink and yellow flower that only grows in a very specific part of the state of Florida. It also only grows on trees, and wind or birds may spread its seeds. These flowers are some of the most rare and delicate species in all of nature. They are all types of orchids.

For hundreds of years orchids have been prized discoveries of collectors and adventurers hoping to find new and exotic breeds of the flower. In her book *The Orchid Thief*, author Susan Orlean tells how in the 1800s orchids became popular in Europe, which made them very valuable. Many "orchid hunters" set out to find and bring back new types of orchids to sell. However, many of the men who went looking for the mysterious orchids met with tragedy instead. Orlean relates that "dozens of hunters were killed by fever or accidents or malaria or foul play. Others became trophies for headhunters or prey for horrible creatures . . ." Sometimes orchid hunters even were injured or killed by other people.

On one trip to find orchids in 1901, eight hunters ventured to the Philippines, which is a group of islands in the Pacific Ocean. A tiger ate one hunter, another was badly burned, and five more completely disappeared. The trip's only survivor brought back 7,000 orchids. Even modern-day orchid hunters, like Tom Hart Dyke, still face incredible dangers to collect the flowers. He and his partner, Paul Winder, were held as prisoners for over nine months after they were captured on an orchid hunt in Central America.

While the plants have long been valued for their beauty, they may be even more important to science and our understanding of co-evolution. Unlike plants that can self-pollinate, orchids need very specific insects or birds to spread their pollen. The process by which insects, the wind, or birds spread the pollen of different flowers is called pollination. Pollen is a powder produced by plants that contains their genetic material. In order for the plants to reproduce, the pollen must be physically moved to the flower's stigma, which contains an egg. Now the fertilized egg can become a seed. Birds and insects can pollinate plants by touching many different flowers and spreading the pollen around.

Orchids evolved to attract insects and birds. Because there are many different species of orchid, there are also many different ways the orchids attract their pollinators. Orlean explains that "many species look so much like their favorite insects that the insect mistakes them for kin [other insects], and when it lands on the flower to visit, pollen sticks to its body.... Another orchid imitates the shape of something that a pollinating insect likes to kill.... Other species look like the mate of their pollinator, so the bug tries to mate with one orchid and then another... and spreads pollen from flower to flower each hopeless time."

Other orchids don't use their shape at all, but rather produce specialized scents to attract specific insects, such as bees, beetles or flies. Some orchids smell like cake, some like chocolate, and some like rotting meat. All these smells may seem weird or gross, but they exist to lure creatures to their pollen and help the orchids survive. The strategies to attract insects and spread their flowers' pollen go on and on. Each family of orchids has a unique kind of insect or bird that visits their flowers, as well as its own way of attracting them. It has worked, too. According to NOVA, a science television series on PBS, "orchid species number more than 25,000 worldwide." That is more kinds of species than any other flower on the planet, and new ones are still being found.

Orchids and the insects that pollinate them are one of the most amazing examples of evolution. Though their degree of co-dependence varies, as it is apparent that at least some orchids are more reliant on their pollinators than the pollinators are on the orchids, the degree of evolutionary specialization is still very impressive. Research by Harvard scientists suggests that certain species of orchid evolved specifically to attract orchid bees, which collect a wide variety of scents from various plants in preparation for mating. In another case, an orchid mimics a female's smell and appearance -and the male pollinator gets nothing out of the bargain whatsoever. By tricking the insects that collect its pollen, the orchid has survived since the time of the dinosaurs. Shh! It's a secret.

# attract                      at        ·        tract

## Definition

### verb

1. to cause people or animals to want to be near.

*The restaurant's bright colors attract many customers.*

*Light attracts insects.*

## Advanced Definition

### transitive verb

1. to cause to come near, as by some special quality or action.

*Magnets attract anything made of iron or steel.*

2. to gain the attention or admiration of.

*The fight in the hallway attracted a crowd of onlookers.*

### intransitive verb

1. to have or use the power of attraction.

*Perfume can either attract or repel.*

## Spanish cognate

*atraer.* The Spanish word *atraer* means attract.

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## These are some examples of how the word or forms of the word are used:

1. To make things worse, space junk can **attract** more space junk to itself - like a magnet. When the space junk snowballs into a larger clump it becomes even more dangerous to other objects looping around the planet.
2. When they live close to human habitations, pythons eat rats, mice, and rabbits that are **attracted** to human dwellings and farms.
3. If you're lucky, you might be able to spot some stars that look bigger than others-they shine brighter and **attract** our attention more than their smaller neighbors do.
4. The reason that cicadas are so noisy is the male bugs call out to the females to **attract** a mate. It's a competition where each male tries to call louder than the next.
5. Since opening in July 2012, the market has **attracted** a lot of attention from local residents who live in the area. Many people are excited that there is now a fresh produce market nearby.
6. You feel how the fridge is pushing at the magnet when it's flipped around? That's because all magnets have two sides. One side is **attracted** to other magnets; the other side is repelled by them. Think of magnets like Legos - they only stick together in one direction.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. What is an orchid?

- A. an insect that spreads pollen
- B. a scent from a flower that attracts insects
- C. a hunter in the Philippines
- D. a rare and valuable flower

2. What does this passage describe?

- A. This passage describes the Europeans who collected orchids in the 1800s.
- B. This passage describes what being a prisoner in Central America is like.
- C. This passage describes the life of Susan Orlean.
- D. This passage describes orchids and orchid hunting.

3. Read the following sentence: "Unlike plants that can self-pollinate, orchids need very specific insects or birds to spread their pollen."

What evidence from the passage supports this statement?

- A. In Venezuela there is a flower people collect for its large white or yellow petals.
- B. There are more than 25,000 species of orchids worldwide.
- C. Many orchids use their scent to lure insects to their pollen.
- D. Many people who went looking for orchids met with tragedy instead.

4. Why might orchid hunters be willing to face dangerous challenges in order to get orchids?

- A. Orchids are worth a lot of money.
- B. Some orchids use their scent to attract insects.
- C. Some orchids look like insects.
- D. The orchid has survived since the time of the dinosaurs.

5. What is this passage mainly about?

- A. the Philippines and the dangers of hunting orchids there
- B. orchids, orchid hunting, and orchid pollination
- C. an orchid hunt that Tom Hart Dyke and Paul Winder went on
- D. a species of orchids that lives deep in the jungles of Colombia

6. Read the following sentence: "Other orchids don't use their shape at all, but rather **produce** specialized scents to attract specific insects, such as bees, beetles or flies. Some orchids smell like cake, some like chocolate, and some like rotting meat."

What does the word **produce** mean in the sentence above?

- A. remove
- B. deliver
- C. change
- D. make

7. Choose the answer that best completes the sentence below.

Many orchids attract insects with smells, \_\_\_\_\_ cake, chocolate, and rotting meat.

- A. such as
- B. although
- C. meanwhile
- D. but

8. What is pollination?

9. What are three ways orchids attract insects to spread their flowers' pollen?

10. The title of the passage is "The Orchid's Secret." Based on the information in the passage, what secret may the title be referring to? Use information from the passage to support your answer.

# Respecting the Flag

This text has been provided courtesy of the Department of Veterans Affairs, Office of Public Affairs.

*"I pledge allegiance to the flag of the United States of America and to the Republic for which it stands, one Nation under God, indivisible, with liberty and justice for all."*

## Important Things to Remember

The Pledge of Allegiance to the Flag should be rendered by standing at attention facing the flag with the right hand over the heart. If not in uniform, a person should remove his or her hat with the right hand and hold it at the left shoulder, with the hand over the heart. Persons in uniform should remain silent, face the flag, and render the military salute.

Display the U.S. flag every day, but especially on national and state holidays. On Memorial Day, the flag should be flown at half-staff in the forenoon (sunrise until noon), then raised to its normal position at the top of the staff. When raising the flag to half-staff, first raise it to the top of the staff, then lower it half-way. When lowering a flag that has been flying at half-staff, first raise it to the top of the staff, then lower it all the way. The U.S. flag should be displayed on or near the main building of every public institution, in or near every school on school days, and in or near every polling place on election days. Always hoist the U.S. flag briskly. Lower it slowly and ceremoniously.

## Things Not to Do

Never show disrespect to the U.S. flag. Never dip (lower quickly and then raise) the U.S. flag to any person or thing. Regimental colors, state flags and organization or institutional flags are dipped as a mark of honor. Never display the U.S. flag with the field of stars at the bottom, except as a distress signal. Never let the U.S. flag touch anything beneath it - ground, floor, water or merchandise. Never carry the U.S. flag horizontally, but always aloft and free.

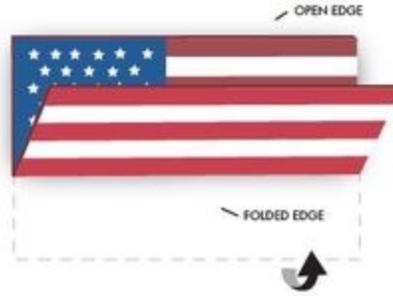
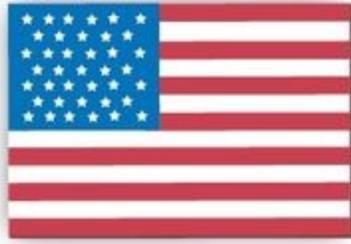
Always allow the U.S. flag to fall free - never use the U.S. flag as drapery, festooned, drawn back or up in folds. For draping platforms and decoration in general, use blue, white and red bunting. Always arrange the bunting with blue above, the white in the middle and the red below. Never fasten, display, use or store the U.S. flag in a manner that will permit it to be easily torn, soiled or damaged in any way. Never use the U.S. flag as a covering or drape for a ceiling. Never place anything on the U.S. flag and never have placed upon it, or on any part of it, or attached to it, any mark, insignia, letter, word, figure, design, picture or drawing of any nature.

The U.S. flag should not be embroidered on such articles as cushions, handkerchiefs, and the like; printed or otherwise impressed on paper napkins or boxes or anything that is designed for temporary use and discarded; or used as any portion of a costume or athletic uniform. However, a flag patch may be affixed to the uniform of military personnel, fire fighters, police officers and members of patriotic organizations. Advertising signs should not be fastened to a staff from which the flag is flown.

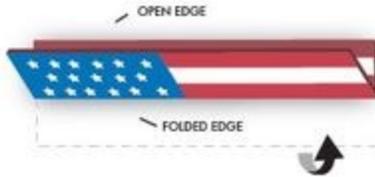


## Folding the Flag

*Many Marines gave their lives to raise the American flag on Mt. Suribachi on the island of Iwo Jima in 1945. Based on a photograph by Joseph Rosenthal, the Marine Corps War Memorial depicts this sacrifice. Located near Arlington National Cemetery, it is a tribute to all the Marines who have fallen in combat.*



(a) Fold the lower striped section of the flag over the blue field.



(b) Folded edge is then folded over to meet the open edge.



(c) A triangular fold is then started by bringing the striped corner of the folded edge to the open edge.



(d) Outer point is then turned inward parallel with the open edge to form a second triangle.



(e) Triangular folding is continued until the entire length of the flag is folded in the triangular shape with only the blue field visible.



*When the U.S. flag is no longer in suitable condition for display, it should be destroyed in a dignified way, preferably by burning. Many Veterans groups perform this service with dignified, respectful flag retirement ceremonies.*

Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. According to the article, what should be displayed on or near the main building of every public institution?

- A. blue, white, and red bunting
- B. regimental colors
- C. an institutional flag
- D. the U.S. flag

2. What does the author enumerate and describe in "Respecting the Flag"?

- A. things to do and not do to the U.S. flag
- B. occupations of people who work in public institutions
- C. the uniforms worn by officers of the U.S. military
- D. the wars in which American veterans have fought

3. Read these sentences from the text:

"Never show disrespect to the U.S. flag. Never dip (lower quickly and then raise) the U.S. flag to any person or thing. Regimental colors, state flags and organization or institutional flags are dipped as a mark of honor. Never display the U.S. flag with the field of stars at the bottom, except as a distress signal. Never let the U.S. flag touch anything beneath it - ground, floor, water or merchandise."

Based on this information, what can you conclude about letting the U.S. flag touch the ground?

- A. Letting the flag touch the ground shows respect to the flag.
- B. Letting the flag touch the ground shows disrespect to the flag.
- C. Letting the flag touch the ground shows neither respect nor disrespect to the flag.
- D. Letting the flag touch the ground shows more respect to the flag than letting it touch water.

4. Review the "Folding the Flag" section of the article. What can you infer about the folding method described there?

- A. The folding method described there shows respect to the flag.
- B. The folding method described there shows disrespect to the flag.
- C. The folding method described there shows neither respect nor disrespect to the flag.
- D. The folding method described there shows less respect to the flag than drawing the flag up in folds.

5. What is the main idea of this text?

- A. The U.S. flag should be displayed in or near every polling place on election days.
- B. The U.S. flag should never have a picture or drawing attached to it.
- C. The U.S. flag should always be treated in a manner that shows respect.
- D. Many Marines gave their lives to raise the American flag on Iwo Jima in 1945.

6. Read these sentences from the text:

"When the U.S. flag is no longer in suitable condition for display, it should be destroyed in a **dignified** way, preferably by burning. Many Veterans groups perform this service with **dignified**, respectful flag retirement ceremonies."

Based on these sentences, what does the word "**dignified**" probably mean?

- A. wild, noisy, and causing a disturbance
- B. silly, fun, and likely to make people laugh
- C. violent, scary, and likely to cause harm
- D. calm, serious, and deserving respect

7. Read this sentence from the text:

"The U.S. flag should not be embroidered on such articles as cushions, handkerchiefs, and the like; printed or otherwise impressed on paper napkins or boxes or anything that is designed for temporary use and discarded; or used as any portion of a costume or athletic uniform."

How could this sentence best be broken in two?

- A. The U.S. flag should not be embroidered. It should not be on such articles as cushions, handkerchiefs, and the like; printed or otherwise impressed on paper napkins or boxes or anything that is designed for temporary use and discarded; or used as any portion of a costume or athletic uniform.
- B. The U.S. flag should not be embroidered on such articles as cushions, handkerchiefs, and the like. It should not be printed or otherwise impressed on paper napkins or boxes or anything that is designed for temporary use and discarded, or used as any portion of a costume or athletic uniform.
- C. The U.S. flag should not be embroidered on such articles as cushions, handkerchiefs, and the like; printed. It should not be otherwise impressed on paper napkins or boxes or anything that is designed for temporary use and discarded; or used as any portion of a costume or athletic uniform.
- D. The U.S. flag should not be embroidered on such articles as cushions, handkerchiefs, and the like; printed or otherwise impressed on paper napkins or boxes or anything that is designed for temporary use and discarded; or used as any portion of a costume. It should not be used as any portion of an athletic uniform.

8. What did many Marines give their lives to raise on Mt. Suribachi in 1945?

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**9.** Explain whether the Marines on Mt. Suribachi in 1945 showed respect to the American flag. Support your answer with evidence from the text.

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**10.** Explain why respecting the American flag is important. Support your answer with evidence from the text.

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Name: \_\_\_\_\_

## 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.

- Lack of money **drove** Sally to sell her house.
  - The blizzard drove Debbie to decide to stay home from work.
  - Dad drove us to the mall, but Mom said she would take us home.
  - The family drove three hours to see the ocean.
  - My older sister drove me to the movies.
- Matt **stroked** his dog's back to calm him down.
  - The stroke left her paralyzed on the right side of her body.
  - The man had a stroke and was not able to walk.
  - The girl stroked her doll's hair.
  - A stroke affects a person's brain functions.
- Frank gave his wife **roses** for their anniversary.
  - We watched as the balloons rose to the ceiling.
  - Janet planted a rose garden.
  - The sun rose slowly in the sky.
  - The airplane rose off into the distance.
- He tried with his **might** to lift the heavy desk, but it wouldn't budge.
  - It took all her might to pry open the stuck window.
  - An accident might happen if you're not paying attention to what you're doing.
  - According to the weatherman, it might rain tomorrow.
  - My mom said that she might take us to the movies this weekend.
- The duck stuck his **bill** in the water.
  - Our phone bill was due on the last day of the month.
  - The eagle had a fish in its bill.
  - Grandpa paid the bill at the restaurant.
  - 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 Keys

## Answers: Math - Scatter Plots

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

# Explanations

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 be 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**.

## Answer Key

1.  $[180^\circ - (80^\circ + 40^\circ) = \mathbf{60^\circ}]$
2.  $[180^\circ - (50^\circ + 75^\circ) = \mathbf{55^\circ}]$
3.  $[180^\circ - (50^\circ + 80^\circ) = \mathbf{50^\circ}]$
4.  $[m\angle 1 = 90^\circ - 80^\circ = 10^\circ; m\angle 3 = 180^\circ - (10^\circ + 80^\circ) = \mathbf{90^\circ}]$
5.  $[m\angle 2 = 180^\circ - 110^\circ = 70^\circ; m\angle 3 = 90^\circ - 60^\circ = 30^\circ; m\angle 1 = 180^\circ - (70^\circ + 30^\circ) = \mathbf{80^\circ}]$
6.  $[m\angle 1 = 180^\circ - 80^\circ = 100^\circ; m\angle 3 = 180^\circ - (100^\circ + 70^\circ) = \mathbf{10^\circ}]$
7.  $[m\angle 1 = 180^\circ - 40^\circ = 140^\circ; m\angle 3 = 180^\circ - (140^\circ + 30^\circ) = \mathbf{10^\circ}]$
8.  $[m\angle 1 = 90^\circ - 60^\circ = 30^\circ; m\angle 3 = 180^\circ - (30^\circ + 80^\circ) = \mathbf{70^\circ}]$
9.  $[m\angle 2 = 90^\circ - 70^\circ = 20^\circ; m\angle 3 = 180^\circ - (80^\circ + 20^\circ) = \mathbf{80^\circ}]$
10.  $[m\angle 2 = 180^\circ - 70^\circ = 110^\circ; m\angle 1 = 180^\circ - (110^\circ + 30^\circ) = \mathbf{40^\circ}]$

## 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

## 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.

## Answer Key   Spelling

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

1. What is an orchid?

- A. an insect that spreads pollen
- B. a scent from a flower that attracts insects
- C. a hunter in the Philippines
- D. a rare and valuable flower**

2. What does this passage describe?

- A. This passage describes the Europeans who collected orchids in the 1800s.
- B. This passage describes what being a prisoner in Central America is like.
- C. This passage describes the life of Susan Orlean.
- D. This passage describes orchids and orchid hunting.**

3. Read the following sentence: "Unlike plants that can self-pollinate, orchids need very specific insects or birds to spread their pollen."

What evidence from the passage supports this statement?

- A. In Venezuela there is a flower people collect for its large white or yellow petals.
- B. There are more than 25,000 species of orchids worldwide.
- C. Many orchids use their scent to lure insects to their pollen.**
- D. Many people who went looking for orchids met with tragedy instead.

4. Why might orchid hunters be willing to face dangerous challenges in order to get orchids?

- A. Orchids are worth a lot of money.**
- B. Some orchids use their scent to attract insects.
- C. Some orchids look like insects.
- D. The orchid has survived since the time of the dinosaurs.

5. What is this passage mainly about?

- A. the Philippines and the dangers of hunting orchids there
- B. orchids, orchid hunting, and orchid pollination**
- C. an orchid hunt that Tom Hart Dyke and Paul Winder went on
- D. a species of orchids that lives deep in the jungles of Colombia

6. Read the following sentence: "Other orchids don't use their shape at all, but rather **produce** specialized scents to attract specific insects, such as bees, beetles or flies. Some orchids smell like cake, some like chocolate, and some like rotting meat."

What does the word **produce** mean in the sentence above?

- A. remove
- B. deliver
- C. change
- D. make**

7. Choose the answer that best completes the sentence below.

Many orchids attract insects with smells, \_\_\_\_\_ cake, chocolate, and rotting meat.

- A. such as**
- B. although
- C. meanwhile
- D. but

8. What is pollination?

Pollination is the process by which insects, the wind, or birds spread the pollen of different flowers.

9. What are three ways orchids attract insects to spread their flowers' pollen?

Students may name any three of the four mentioned in the passage:1)

Some orchids look so much like insects that real insects land on them to

visit.2) Some orchids look like something the insects like to kill, which

lures the insects over.3) Some orchids look like insects' mates, so insects

try to mate with the orchids.4) Some orchids use their scent to attract

insects.

**10.** The title of the passage is "The Orchid's Secret." Based on the information in the passage, what secret may the title be referring to? Use information from the passage to support your answer.

Answers may vary and should be supported by the passage. Students may explain that the secret referenced in the title may refer to the manner in which orchids attract pollinators by resembling other species or releasing different scents in order to have their pollen spread. These deceptive evolutionary tactics have been the orchids' secret to survival.

1. According to the article, what should be displayed on or near the main building of every public institution?

- A. blue, white, and red bunting
- B. regimental colors
- C. an institutional flag
- D. the U.S. flag**

2. What does the author enumerate and describe in "Respecting the Flag"?

- A. things to do and not do to the U.S. flag**
- B. occupations of people who work in public institutions
- C. the uniforms worn by officers of the U.S. military
- D. the wars in which American veterans have fought

3. Read these sentences from the text:

"Never show disrespect to the U.S. flag. Never dip (lower quickly and then raise) the U.S. flag to any person or thing. Regimental colors, state flags and organization or institutional flags are dipped as a mark of honor. Never display the U.S. flag with the field of stars at the bottom, except as a distress signal. Never let the U.S. flag touch anything beneath it - ground, floor, water or merchandise."

Based on this information, what can you conclude about letting the U.S. flag touch the ground?

- A. Letting the flag touch the ground shows respect to the flag.
- B. Letting the flag touch the ground shows disrespect to the flag.**
- C. Letting the flag touch the ground shows neither respect nor disrespect to the flag.
- D. Letting the flag touch the ground shows more respect to the flag than letting it touch water.

4. Review the "Folding the Flag" section of the article. What can you infer about the folding method described there?

- A. **The folding method described there shows respect to the flag.**
- B. The folding method described there shows disrespect to the flag.
- C. The folding method described there shows neither respect nor disrespect to the flag.
- D. The folding method described there shows less respect to the flag than drawing the flag up in folds.

5. What is the main idea of this text?

- A. The U.S. flag should be displayed in or near every polling place on election days.
- B. The U.S. flag should never have a picture or drawing attached to it.
- C. **The U.S. flag should always be treated in a manner that shows respect.**
- D. Many Marines gave their lives to raise the American flag on Iwo Jima in 1945.

6. Read these sentences from the text:

"When the U.S. flag is no longer in suitable condition for display, it should be destroyed in a **dignified** way, preferably by burning. Many Veterans groups perform this service with **dignified**, respectful flag retirement ceremonies."

Based on these sentences, what does the word "**dignified**" probably mean?

- A. wild, noisy, and causing a disturbance
- B. silly, fun, and likely to make people laugh
- C. violent, scary, and likely to cause harm
- D. **calm, serious, and deserving respect**

7. Read this sentence from the text:

"The U.S. flag should not be embroidered on such articles as cushions, handkerchiefs, and the like; printed or otherwise impressed on paper napkins or boxes or anything that is designed for temporary use and discarded; or used as any portion of a costume or athletic uniform."

How could this sentence best be broken in two?

A. The U.S. flag should not be embroidered. It should not be on such articles as cushions, handkerchiefs, and the like; printed or otherwise impressed on paper napkins or boxes or anything that is designed for temporary use and discarded; or used as any portion of a costume or athletic uniform.

**B. The U.S. flag should not be embroidered on such articles as cushions, handkerchiefs, and the like. It should not be printed or otherwise impressed on paper napkins or boxes or anything that is designed for temporary use and discarded, or used as any portion of a costume or athletic uniform.**

C. The U.S. flag should not be embroidered on such articles as cushions, handkerchiefs, and the like; printed. It should not be otherwise impressed on paper napkins or boxes or anything that is designed for temporary use and discarded; or used as any portion of a costume or athletic uniform.

D. The U.S. flag should not be embroidered on such articles as cushions, handkerchiefs, and the like; printed or otherwise impressed on paper napkins or boxes or anything that is designed for temporary use and discarded; or used as any portion of a costume. It should not be used as any portion of an athletic uniform.

8. What did many Marines give their lives to raise on Mt. Suribachi in 1945?

**Suggested answer:** Many Marines gave their lives to raise the American flag on Mt. Suribachi in 1945.

**9.** Explain whether the Marines on Mt. Suribachi in 1945 showed respect to the American flag. Support your answer with evidence from the text.

**Suggested answer:** Students should recognize that the Marines on Mt. Suribachi in 1945 showed respect to the American flag. First of all, they were raising the flag. "Displaying the U.S. flag" is one way of showing respect to it. Also, many of those Marines gave their lives to raise the flag. Making such a sacrifice is another form of respect to the flag.

**10.** Explain why respecting the American flag is important. Support your answer with evidence from the text.

**Suggested answer:** Answers may vary but should be supported by the text. For example: Respecting the American flag is important because of the sacrifices others have made for it. Take the Marines who gave their lives to raise the American flag on Mt. Suribachi in 1945. They were showing respect to the flag and sacrificing themselves for it. Respecting the American flag is therefore a tribute. It is a tribute to those who have died for it.

## Answer Key Multiple Meaning Words

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