

## **Week of March 25 – March 31 (8<sup>th</sup> grade)**

**Mooneyham – Leaf Shapes**

**Marcy – Study Sync Grammar Practice**

**Ault – Probability Notes/Worksheet & Logic Puzzle**

**Woehrle – RI.8.5**

**Szczepaniak – Topic 5 (5-1, 5-2, 5-3, 5-4)**

**Slupsky – Civics Practice Test**

**If you can, check your google classroom. Also, please put your name on each teacher's assignment.**

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Hello Student.

School is closed until April 10 at this time, but that can change. However, learning must continue as knowledge is something that cannot be taken from you.

I have set up Google Classroom for each class hour. All students have been added, but you will need to login to your parker gmail account and accept the invite. The code for each class hour is below (just in case I missed someone and some students had two accounts):

1st hour: ctau3vh  
2nd hour: gqde3lp  
3rd hour: sbrcdx7  
5th hour: s7nj4w2  
6th hour: lpwwd6y

I will be assigning Zoom to all classes which is a video conference. This is just going to be office hours so if any student has any questions about their math assignment(s), they may log in at the scheduled times to get help. This is optional. It is NOT required.

Monday 6-6:45 pm. Tuesday 9-9:45 am. and Thursday 9-9:45 am.

I will also be uploading the assignments into the google classroom. Students may do the work on a separate sheet of paper and upload their work into the classroom to receive credit or they may do the work on the printed assignments and turn them back into Wallace Junior High Office between the hours of 8 am and 2 pm.

Stay Safe and I look forward to seeing you soon.

Kellee Szczepaniak, M.Ed.  
Wallace Junior High School  
Mathematics  
928-669-2141 ext 1254

## Review What You Know!

## Vocabulary

Choose the best term from the box to complete each definition.

- The value of  $m$  in the equation  $y = mx + b$  represents the \_\_\_\_\_.
- When lines are the same distance apart over their entire lengths, they are \_\_\_\_\_.
- The \_\_\_\_\_ is the value  $b$  in the equation  $y = mx + b$ .
- A \_\_\_\_\_ is a relationship between two variables that gives a straight line when graphed.

linear equation  
parallel  
slope  
y-intercept

## Identifying Slope and y-Intercept

Identify the slope and the y-intercept of the equation.

5.  $y = 2x - 3$

slope = \_\_\_\_\_

y-intercept = \_\_\_\_\_

6.  $y = -0.5x + 2.5$

slope = \_\_\_\_\_

y-intercept = \_\_\_\_\_

7.  $y - 1 = -x$

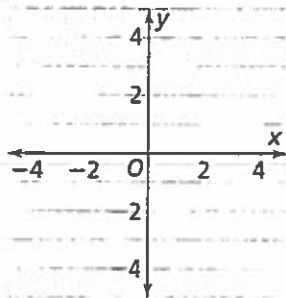
slope = \_\_\_\_\_

y-intercept = \_\_\_\_\_

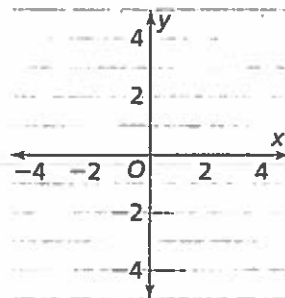
## Graphing Linear Equations

Graph the equation.

8.  $y = \frac{2}{3}x - 2$



9.  $y = -2x + 1$



## Solving Equations for Variables

Solve the equation for  $y$ .

10.  $y - x = 5$

11.  $y + 0.2x = -4$

12.  $-\frac{2}{3}x + y = 8$



How many solutions does the system of linear equations have?

$$y = x - 3$$

$$y = -x + 1$$

For  $y = x - 3$ , the slope is 1.

For  $y = -x + 1$ , the slope is  $-1$ .

Because the slopes are different, the equations represent lines that intersect at one point. So the system has one solution.

At a farmers' market, Karen and Alice each bought some bread that cost \$2 per loaf. Then Karen spent \$3 to purchase other items, while Alice spent \$1. Could the girls have bought the same number of loaves of bread and spent the same total amount?

1. Let  $x$  represent the number of loaves of bread. Fill in the boxes to write a system of equations for the total amounts spent.

Karen:  $y = \square x + \square$

Alice:  $y = \square x + \square$

2. What are the slopes of the lines represented by the equations?
3. What are the  $y$ -intercepts of the lines represented by the equations?
4. Do the lines intersect?
5. How many solutions are there to this system of equations?
6. Can Karen and Alice have bought the same number of loaves of bread and spent the same total amount?

### On the Back!

7. How many solutions does the system of linear equations have?

$$y = 6x + 4$$

$$y = 3x - 2$$

What is the solution of the system?

$$y = 2x + 2$$

$$y = 4x - 4$$

Graph the lines. The point of intersection is (3, 8).

$$y = 2x + 2$$

$$y = 4x - 4$$

$$8 \stackrel{?}{=} 2(3) + 2$$

$$8 \stackrel{?}{=} 4(3) - 4$$

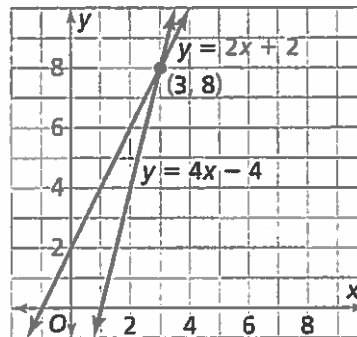
$$8 \stackrel{?}{=} 6 + 2$$

$$8 \stackrel{?}{=} 12 - 4$$

$$8 = 8 \checkmark$$

$$8 = 8 \checkmark$$

The solution is  $x = 3$  and  $y = 8$ .

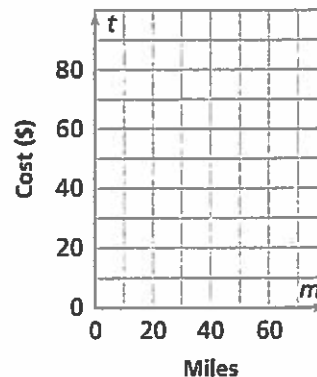


A rental car company charges a one time fee of \$50 plus \$1 per mile. Another rental car company charges a one time fee of \$10 plus \$2 per mile. The equations at right represent the total cost,  $t$ , for renting a car for  $m$  miles at each company. For how many miles is the cost the same at both companies?

$$t = m + 50$$

$$t = 2m + 10$$

Rental Car Costs



- Graph the lines represented by the equations.
- What is the point of intersection?
- Substitute the coordinates of the intersection point in each equation. Do the coordinates represent a solution to both equations?

$$t = m + 50$$

$$\underline{\quad} \stackrel{?}{=} \underline{\quad} + 50$$

$$= \underline{\quad}$$

$$t = 2m + 10$$

$$\underline{\quad} \stackrel{?}{=} 2(\underline{\quad}) + 10$$

$$\underline{\quad} \stackrel{?}{=} \underline{\quad} + 10$$

$$= \underline{\quad}$$

- For how many miles is the cost the same at both companies?

**On the Back!**

- Manny has 85 cents in nickels and dimes. He has 10 coins altogether. The equations at right relate the number of nickels,  $x$ , and the number of dimes,  $y$ . Graph each equation. How many nickels and how many dimes does Manny have?

$$x + y = 10$$

$$5x + 10y = 85$$

Together, Amy and Mai have saved \$490 for a trip this summer. Amy has saved \$54 more than Mai. How much has each person saved?

Let  $a$  = the amount Amy has saved. Let  $m$  = the amount Mai has saved.

Write a system of linear equations to represent the situation.

$$a + m = 490$$

$$a = m + 54$$

Use substitution to find the value of  $m$ .

$$(m + 54) + m = 490$$

$$2m + 54 = 490$$

$$m = 218$$

Substitute to find the value of  $a$ .

$$a = 218 + 54$$

$$a = 272$$

Amy has saved \$272. Mai has saved \$218.

A parking lot charges \$7 per day to park on weekdays and \$12 per day on weekends. Jamal parked his car in this lot on 6 days last week and spent a total of \$52. How many weekdays and weekend days did Jamal park?

1. Let  $x$  = the number of weekdays and let  $y$  = the number of weekend days. Fill in the boxes to write a system of equations.

$$x + y = \underline{\quad}$$

$$\underline{\quad}x + \underline{\quad}y = 52$$

2. Solve the equation for  $y$  in terms of  $x$ .

$$y = \underline{\quad} - \underline{\quad}$$

3. Rewrite the second equation by substituting your value for  $y$  in terms of  $x$  found in Exercise 2.

$$7x + 12(\underline{\quad}) = 52$$

4. Solve your equation in Exercise 3. What is the value of  $x$ ?
5. How can you find the value of  $y$ ? What is the value of  $y$ ?

6. How many weekdays and weekend days did Jamal park?

### On the Back!

7. Krysta bought 24 notebooks and spent \$104. The large notebooks cost \$6 each and the small notebooks cost \$2 each. How many of each type of notebook did she buy?

Use elimination to solve the system of equations.

$$3x + 2y = 17$$

$$6x - 2y = 28$$

Add the equations to eliminate  $y$ .

$$\begin{array}{r} 3x + 2y = 17 \\ + 6x - 2y = 28 \\ \hline 9x \quad = 45 \\ x = 5 \end{array}$$

Substitute the value of  $x$  and solve for  $y$ :

$$\begin{array}{r} 3x + 2y = 17 \\ 3(5) + 2y = 17 \\ 15 + 2y = 17 \\ y = 1 \end{array}$$

The solution is  $x = 5, y = 1$ .

The sum of Bobbi's and Dan's heights is 130 inches. Dan's height subtracted from 3 times Bobbi's height is 118 inches. What are Bobbi's and Dan's heights in inches?

- Let  $b$  = Bobbi's height and let  $d$  = Dan's height.  
Fill in the boxes to write a system of equations.
- Add the equations to eliminate  $d$ . What is the value of  $b$ ?
- How can you find the value of  $d$ ? What is the value of  $d$ ?

$$b + d = \underline{\hspace{2cm}}$$

$$b - d = \underline{\hspace{2cm}}$$

$$b = \underline{\hspace{2cm}}$$

$$b = \underline{\hspace{2cm}}$$

- What are Bobbi's and Dan's heights in inches?

### On the Back!

- A football team scored a total of 37 points in a game. The team scored some field goals worth 3 points each and some touchdowns with extra points, each together worth 7 points. The team made 19 more points in touchdowns with extra points than in field goals. How many field goals and how many touchdowns with extra points did the team score?

Objective- I can explain how the structure of a paragraph and specific sentences help to develop key concepts.

You should be able to answer these questions with a reading

- What is the role of particular sentences in a paragraph?
- How do these sentences develop and refine key concepts?

## Notes

### Topic Sentence

Most paragraphs begin with a topic sentence. It is usually the first sentence in the paragraph. The topic sentence introduces the main idea of the paragraph (what it is all about). Basically, the topic sentence summarizes the main idea of the paragraph.

### Supporting Details

Supporting details come after the topic sentence and give more information on the main idea. If you are writing a paragraph about how disappointed you are that professional sports were cancelled, your supporting details could be reasons why you are disappointed. The supporting details could also be facts, examples, and details about the sports. These details make up the majority of the body of the paragraph.

### Closing (Concluding) Sentence

When you are only writing one paragraph, the closing, or concluding sentence is the last sentence of the paragraph. The closing sentence restates, or summarizes, the main idea in different words than the topic sentence.

### Transitions Sentences

When there is more than one paragraph, the transition sentence helps the reader move from one paragraph to the other without getting confused. It is the last sentence of the paragraph before moving on to the next one. The transition sentence summarizes the paragraph that it is in and give a hint (foreshadows) what the next paragraph is about.



## RI.8.5

Read each question carefully.

### "Air Force One" (excerpted)

In 1944, President Franklin D. Roosevelt called for the creation of the Presidential Pilot's Office. It was asked to provide air transportation to the President and his staff.

For most of the next 20 years, various airplanes were used for presidential air travel. They were propeller-powered aircraft. In 1962, the first jet aircraft, a Boeing 707, was purchased for use as Air Force One.

The President currently uses two Boeing 747-200B aircraft. Their tail numbers are 28000 and 29000. In addition, they have the Air Force designation VC-25A. When the President is aboard either craft, or any other Air Force aircraft, the radio call sign is "Air Force One."

While on the aircraft, the President and staff have access to a full range of services. These include secure and non-secure voice and data communications. The President is also able to use photocopying, fax, printing, and word processing.

These aircraft are maintained and operated by the Presidential Airlift Group. This unit is part of the Air Mobility Command's 89th Aircraft Wing, based at Andrews Air Force Base in Suitland, Maryland. The VC-25A is capable of flying halfway around the world without refueling. It can hold more than 70 passengers.

"Air Force One." White House Military Office. The White House, n.d. Web. 23 Dec. 2004.

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**RI.8.5**

1) from "Air Force One"

Read the sentence.

"While on the aircraft, the President and staff have access to a full range of services."

What is the function of this sentence in the fourth paragraph?

- A) It is the topic sentence.
  - B) It provides supporting detail.
  - C) It is the concluding sentence.
  - D) It is a transitional sentence.
- 

2) from "Air Force One"

Read the statement.

"While on the aircraft, the President and staff have access to a full range of services."

What evidence from the text supports this statement?

- A) "When the President is aboard either craft, or any other Air Force aircraft, the radio call sign is 'Air Force One.'"
  - B) "The President is also able to use photocopying, fax, printing, and word processing."
  - C) "The VC-25A is capable of flying halfway around the world without refueling. It can hold more than 70 passengers."
  - D) "In 1962, the first jet aircraft, a Boeing 707, was purchased for use as Air Force One."
-

## RI.8.5

### "Cell Phones"

One of the most widespread technologies is the **cellular phone**, or cell phone for short. There were an estimated 6 billion cell phone subscribers globally in 2011, representing 87 percent of the world's population. While many people use them, few know much about cell phones. How do they work? How long have they been around? And is it true that cell phones are a health hazard?

#### *How They Work*

Fixed (that is, non-cellular) phones are connected to telephone networks through a physical medium, often metal wires or fiber-optic cables. By contrast, cell phones connect to networks through the use of invisible **radio waves**. This is why cell phones do not need to be plugged into telephone line jacks.

Radio waves are controlled by the federal government, which licenses certain radio **frequencies** for use by cell phone companies (called **providers**). Cell phone providers build computerized **base stations** (the cell phone towers you see around town) to broadcast radio waves and coordinate cell phone calls. However, there are far more cell phone subscribers than there are radio frequencies with which to transmit their calls. How do cell phone providers solve this problem?

Simply put, they recycle frequencies. The frequency used to carry the cell phone call you made this morning was probably being used by many other people in your city. The reason why their calls did not interfere with yours is because those people were not in your **cell**. Think of your city as being divided into many small hexagonal chunks of space called cells, as in the diagram below. They may be small, around a mile across, or large, up to 12 miles across. Each cell has a set of frequencies assigned to it (F1-F3 in the diagram), and those frequencies are further divided among the base stations within the cells. To reduce the risk of radio interference, cells that share the same set of frequencies may not be contiguous.

When a phone enters a cell's area of coverage, it sends a message to the nearest base station. This message contains the identity and location of the cell phone's owner. When someone dials the cell phone's number, a signal is routed through the base station to the phone, causing it to ring. Answering the phone causes the base station to assign a small segment of its available frequencies (called a **circuit**) to handle the call.

Cell phone users may move from one cell to another during a call, perhaps while riding on a bus. The result is a procedure called a **handoff**. As the name suggests, a handoff involves the old base station (the **source**) passing the call to a base station in the new cell (the **target**). When a handoff is successful, the transition happens so quickly that users do not even notice it. However, a handoff may fail, resulting in a temporary interruption in the conversation or even the termination of the call. Thus, the freedom of movement afforded by a cell phone also leads to one of the most common and irritating problems experienced by cell phone users.

## RI.8.5

### *History*

Surprisingly, the concept of the portable phone is almost as old as the telephone itself. In 1906, a mere 30 years after Alexander Graham Bell secured a patent for the telephone, Charles E. Alden claimed to have invented a "vest pocket telephone." While Alden's phone was probably nothing more than speculation, it demonstrates that inventors saw the potential for cell phones long before the technology had advanced enough to make them possible.

The first true mobile telephone call was made from a car in 1946. It was routed through Bell System's Mobile Telephone Service, an ancestor of today's cellular networks. The telephone equipment used in the system was not hand-held since the phones weighed 80 pounds each. They used bulky, unreliable vacuum tubes rather than the tiny microcircuits in today's cell phones.

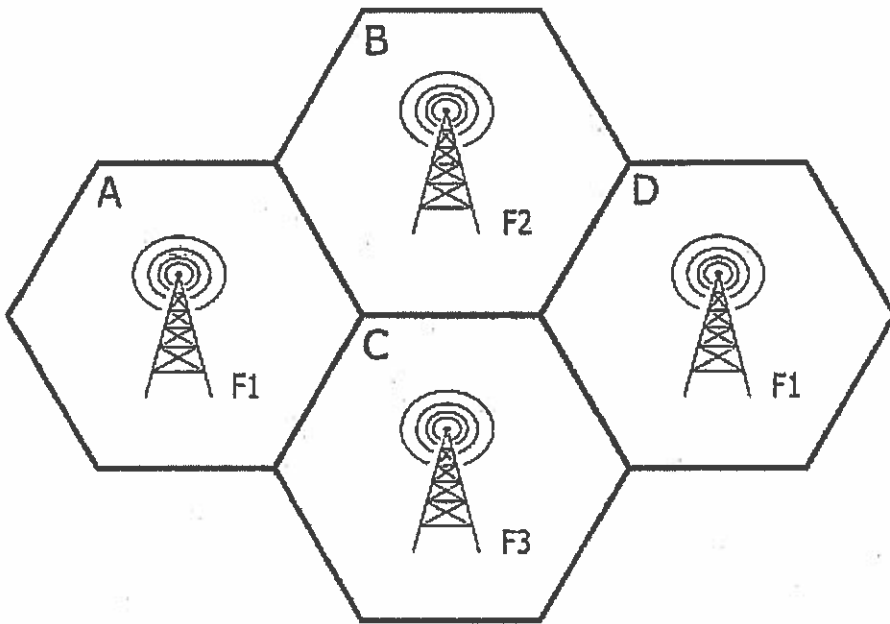
In 1973, Motorola developed the first hand-held mobile phone. The initial calls on this phone were made by a lead researcher on the project, Martin Cooper, as he walked around the streets of New York City. Cooper's calls must have been somewhat uncomfortable, however, since the phone weighed two pounds. Imagine holding a two-pound weight up to your ear for more than a few minutes at a time! Appropriately enough, this first cell phone was nicknamed "the brick." It sold for an astonishing \$3,995.

Since the 1970s, cell phone technology has substantially improved. Cell phones are now small enough to fit in the palm of one's hand and weigh only a few ounces. Moreover, they cost much less than Motorola's brick. Even better, today's smartphones are essentially hand-held computers capable of running all manner of sophisticated software applications. It is possible to surf the Web and even watch entire movies on a smartphone.

### *Risks*

Given cell phones' convenience and multitude of uses, it is no wonder that most of the world's population uses them. Nevertheless, cell phones are not without their detractors. Some critics charge that cell phones cause cancer. A few studies indicate that heavy cell phone users (i.e., over 30 minutes a day) are at a higher risk of developing brain tumors over a 10-year period. However, other researchers cast doubt on these findings by noting that the dramatic increase in cell phone use in recent decades has not been accompanied by increasing occurrence of brain tumors.

While it is unclear if cell phones cause cancer, it is clear that they cause car accidents. According to the United States Department of Transportation, drivers who use cell phones are four times as likely to be involved in a car crash that results in physical injury. Worse, drivers who send or receive text messages are 23 times as likely to be involved in a serious car accident. As a result, states have passed laws restricting cell phone use in cars. Texting while driving is against the law in 39 states, while 10 states ban talking on a cell phone while driving.



3) from "Cell Phones"

Which sentence provides evidence to support the author's claim that talking on a cell phone while driving increases one's chances of having a car accident?

- A) "Nevertheless, cell phones are not without their detractors."
- B) "While it is unclear if cell phones cause cancer, it is clear that they cause car accidents."
- C) "According to the United States Department of Transportation, drivers who use cell phones are four times as likely to be involved in a car crash that results in physical injury."
- D) "Worse, drivers who send or receive text messages are 23 times as likely to be involved in a serious car accident."

**RI.8.5**

4) from "Cell Phones"

Read the sentence.

"Surprisingly, the concept of the portable phone is almost as old as the telephone itself."

What is the function of this sentence in the seventh paragraph?

- A) It is a topic sentence.
  - B) It is a concluding sentence.
  - C) It provides supporting detail.
  - D) It is a transitional sentence.
- 

5) from "Cell Phones"

Read the sentence.

"Cell phones are now small enough to fit in the palm of one's hand and weigh only a few ounces."

What is the function of this sentence in the tenth paragraph?

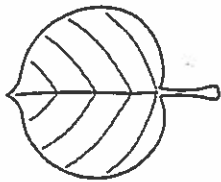
- A) It is a topic sentence.
  - B) It is a concluding sentence.
  - C) It provides supporting detail.
  - D) It is a transitional sentence.
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\*Get 1 ruler and 1 pencil

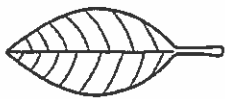
# Leaf Shapes

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

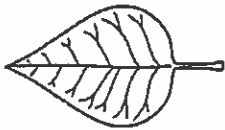
Date: \_\_\_\_\_



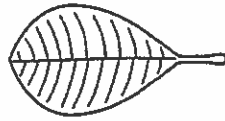
Orbicular



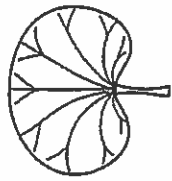
Elliptic



Ovate



Obovate



Reniform

Instructions: Find two leaves that are different shapes. Draw a detailed illustration of the leaves in the boxes below, then write a description of each leaf and answer the questions.

Use your thumb as a measuring tool!

Leaf width: \_\_\_\_\_

Leaf length: \_\_\_\_\_

Leaf shape: \_\_\_\_\_

Leaf texture: \_\_\_\_\_

Leaf color: \_\_\_\_\_

Description: \_\_\_\_\_

Leaf width: \_\_\_\_\_

Leaf length: \_\_\_\_\_

Leaf shape: \_\_\_\_\_

Leaf texture: \_\_\_\_\_

Leaf color: \_\_\_\_\_

Description: \_\_\_\_\_

# Nature Walk Observations

Name:	Date:
Time:	Weather:

## Plants

1. What types of plants do you see? List at least 4.

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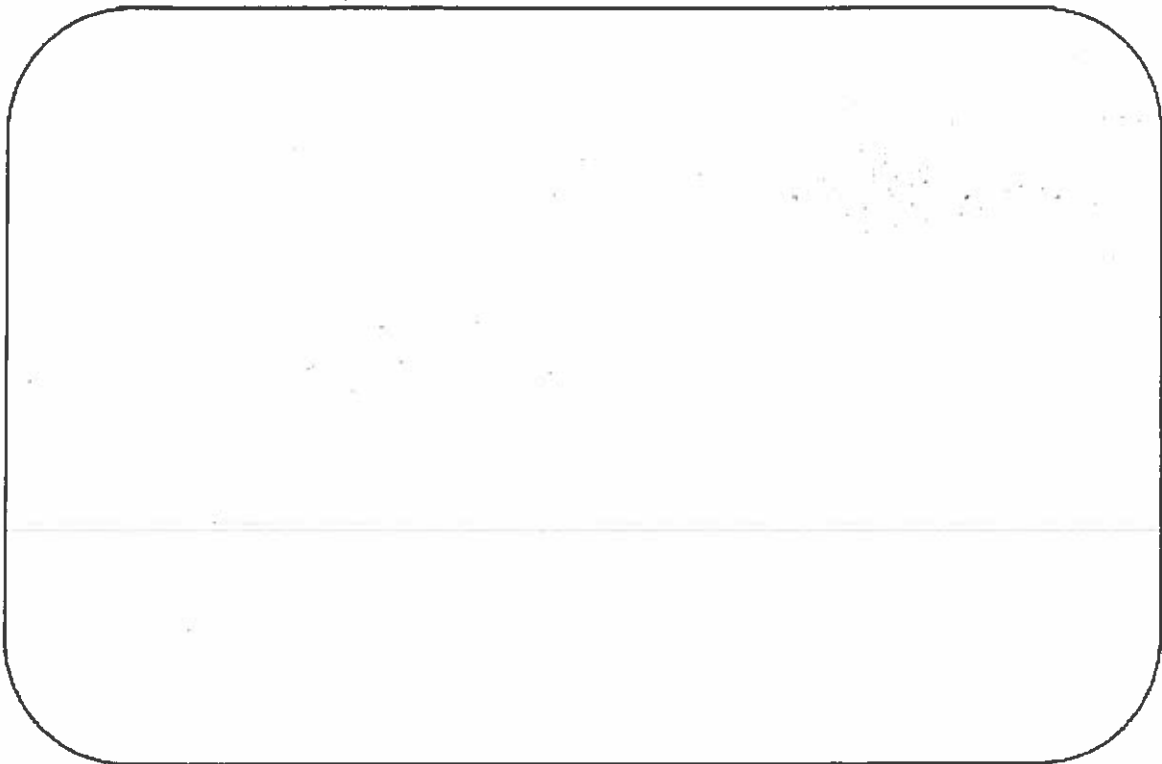
2. Choose one plant you see and describe it in detail.

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3. Choose a different plant and draw it here.





### Review of Simple Probability

- The probability of a *simple event* is a ratio of the number of favorable outcomes for the event to the total number of possible outcomes of the event.
- The probability of an event  $a$  can be expressed as:

$$P(a) = \frac{\text{number of favorable outcomes}}{\text{total number of possible outcomes}}$$

### Find Outcomes of simple events

- For Simple Events – count the outcomes
- Examples:
  - One Die- 6 outcomes
  - One coin- 2 outcomes
  - One deck of cards- 52 outcomes
  - One fair number cube- 6 outcomes

### Finding Outcomes of more than one event

- The total outcomes of each event are found by using a tree diagram or by using the fundamental counting principle.
- Example:
 

At football games, a student concession stand sells sandwiches on either wheat or rye bread. The sandwiches come with salami, turkey, or ham, and either chips, a brownie, or fruit.

Use a tree diagram to determine the number of possible sandwich combinations.

### Tree diagram with sample space

Bread	Meat	Side	Outcomes
Wheat	Salami	Chips	WCS
Wheat	Salami	Brownie	WCB
Wheat	Salami	Fruit	WCF
Wheat	Turkey	Chips	WTC
Wheat	Turkey	Brownie	WTB
Wheat	Turkey	Fruit	WTF
Wheat	Ham	Chips	WHC
Wheat	Ham	Brownie	WHB
Wheat	Ham	Fruit	WHF
Rye	Salami	Chips	RCS
Rye	Salami	Brownie	RCB
Rye	Salami	Fruit	RCF
Rye	Turkey	Chips	RTC
Rye	Turkey	Brownie	RTB
Rye	Turkey	Fruit	RTF
Rye	Ham	Chips	RHC
Rye	Ham	Brownie	RHB
Rye	Ham	Fruit	RHF

### Answer

- Using the fundamental counting principle

bread x meat x side

$$2 \times 3 \times 3 = 18 \text{ outcomes}$$

### More on the fundamental counting principle

- Sometimes the number of outcomes changes after each event depending upon the situation
- Example:
 

There are 8 students in the Algebra Club at Central High School. The students want to stand in a line for their yearbook picture. How many different ways could the 8 students stand for their picture?

ADULT

### Counting principle cont'

The number of ways to arrange the students can be found by multiplying the number of choices for each position.

There are eight people from which to choose for the first position.

After choosing a person for the first position, there are seven people left from which to choose for the second position.

### Counting Principle

- There are now six choices for the third position.
- This process continues until there is only one choice left for the last position.

Let  $n$  represent the number of arrangements.

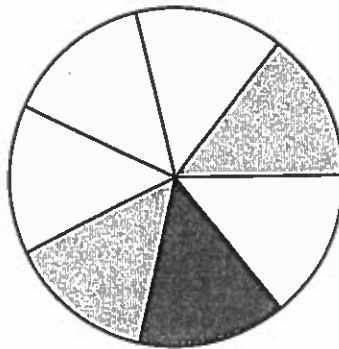
$$n = 8 \times 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1 = 40,320$$

Answer: There are 40,320 different ways they could stand.

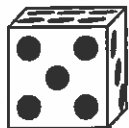


Use each diagram to solve the problems.

- How many pieces are there total in the spinner?
- If you spun the spinner 1 time, what is the probability it would land on a gray piece?
- If you spun the spinner 1 time, what is the probability it would land on a black piece?
- If you spun the spinner 1 time, what is the probability it would land on a white piece?
- If you spun the spinner 1 time, what is the probability of landing on either a white piece or a black piece?



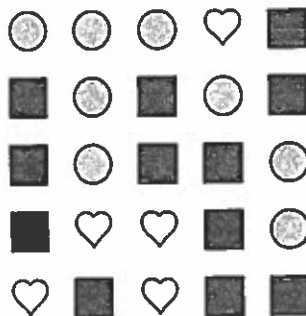
- Answers
- \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_
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  - \_\_\_\_\_
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  - \_\_\_\_\_
  - \_\_\_\_\_



- If you were to roll the dice one time what is the probability it will land on a 3?
- If you were to roll the dice one time what is the probability it will NOT land on a 2?
- If you were to roll the dice one time, what is the probability of it landing on an even number?



- How many shapes are there total in the array?
- If you were to select 1 shape at random from the array, what is the probability it will be a circle?
- If you were to select 1 shape at random from the array, what shape do you have the greatest probability of selecting?
- Which shape has a 32% chance (8 out of 25) of being selected?



1724

### Probability Worksheet #9 (All)

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

Period: \_\_\_\_\_

Do the work on a separate piece of paper and show all your work.

Find the probability for each problem below.

1. You roll a single die numbered from 1 to 6. What is the probability of rolling an odd number, expressed as a fraction?	2. A jar contains 12 caramels, 7 mints and 16 dark chocolates. What is the probability of selecting a mint expressed as a fraction?
3. The numbers 4 through 14 are placed in a bowl and drawn at random then replaced after being drawn. Is it likely or unlikely you will draw a number less than 7?	4. In a deck of 52 playing cards, what is the probability of drawing a spade expressed as a decimal?
5. The letters that form the word MISSISSIPPI are placed in a bowl. What are the odds of choosing a "P"?	6. In a deck of 52 playing cards, are the odds favorable that you will draw a heart or a diamond?
7. There is a jar of jelly beans with the following flavors: 12 are grape, 17 are blueberry, 5 are pineapple and 13 are coconut. What is the probability, expressed as a percent, of selecting either a grape or blueberry replacing it and then a coconut or pineapple?	8. There are 29 students available to represent the upperclassmen at a fair. 13 are juniors and 16 are seniors. What is the probability, as a percent that a senior and junior will be chosen?
9. In a deck of 52 playing cards what is the probability, as a fraction, of drawing a picture card (A,K,Q,J) replacing it and then drawing either a heart or a diamond?	10. There are 12 men on the basketball team. 2 are centers, 5 are guards, the rest a forwards. What is the probability, as a percent, that out of two players chosen at random they would be a guard and a forward?
11. You have a jar of marbles in front of you with the following colors: 7 - red, 12 - blue, 6 - yellow and 9 - white. What are the odds of selecting a marble that is not blue, replacing it and then one that is blue?	12. There are 15 men on the roster of the baseball team. 2 are catchers, 8 are infielders, 4 are outfielders and the remainder are pitchers. What is the probability that out of two players chosen at random they would be a pitcher and an infielder?

Find the probability for each problem below.

13. You roll a single die numbered from 1 to 6. Is it likely you will roll a number greater than 4 the first time and a number less than 2 the 2nd?	14. You have the following coins in your pocket: 5 quarters, 6 dimes, 2 nickels and 12 pennies. What is the probability, as a decimal, you will draw a dime and then a penny?
15. The letters that form the word ALGEBRA are placed in a bowl. What is the probability, as a percent, of choosing a letter other than "A" and then choosing an "A"?	16. In a deck of 52 playing cards, what is the probability, as a fraction, of drawing either a heart or a diamond than a spade or a club if each card is returned to the deck before drawing the next one?
17. You have a jar of jelly beans in front of you with 12 - lime, 17 - papaya, 5 - mango and 13 - bubble gum. What is the probability, as a fraction, of selecting either a lime or bubble gum followed by a papaya?	18. You roll a die and then flip a coin. What is the probability, as a percent, of getting an even number on the die and then a head on the coin?
19. In a deck of 52 playing cards what is the probability, as a fraction, of drawing a picture card (A, K, Q, and J) that is also a diamond then a card numbered 2-9?	20. You flip a coin three times in a row. What is the probability you will get three heads?
21. You have a jar of marbles in front of you. 2 are red, 9 are yellow, 3 are white and 7 are blue. What is the probability, as a percent, of selecting a marble that is white or yellow, followed by a marble that is red?	22. In your wallet you have the following paper money: 7 singles, 3 fives, 2 tens and 6 twenties. What is the probability, as a percent, you will draw a 5 and then a 20?
23. After shooting foul shots for 5 minutes, the player had made 35 shots out of 60. Is it likely or unlikely that if he needs to make two free throws to win the game in a row he will do so?	24. The letters that form the word MATHEMATICS are placed in a bowl. Are the odds favorable or unfavorable that he will choose a letter that is a vowel followed by a vowel?

ADULT Due 3/31  
 \*EXTRA CREDIT\*  
**Spring Time Showers!**

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

April showers bring May flowers- and there are some cities in the United States that get a lot of rain! The following cities (Long Beach, Mt. Washington, Otis, and Snowshoe Mt.) have either 204, 207, 210, or 213 rainy days a year. This is based on getting 0.01 inches or more of rain in a day, and averaged from 1981 – 2010. Use the clues to find out how many rainy days each city has per year, and what state the city is located in.

Source = [www.currentresults.com/weather-extremesv](http://www.currentresults.com/weather-extremesv)

	Days of Rain Each Year				State			
	204 Days	207 Days	210 Days	213 Days	New Hampshire	Oregon	Washington	West Virginia
Long Beach								
Mt. Washington								
Otis								
Snowshoe Mt.								
New Hampshire								
Oregon								
Washington								
West Virginia								



**CLUES**

- Otis is not in an eastern state.
- New Hampshire had more rainy days than Oregon and Snowshoe Mt, but fewer rainy days than Long Beach.
- West Virginia had an odd number of rainy days; Otis had an even number.
- Long Beach had 213 rainy days. It is not in West Virginia, but Snowshoe Mt. is.

**ANSWER GRID**

City	Days of Rain Each Year	State
Long Beach		
Mt. Washington		
Otis		
Snowshoe Mt.		

# NUMBER SEARCH

DIRECTIONS: SOLVE THE PROBLEMS. THEN FIND AND CIRCLE THE PROBLEMS HIDDEN IN THE PUZZLE. YOU WILL ADD THE ÷ AND =.

$1 \div 1 = 1$	36	5	64	121	7	7	18	54	5	16		
2	6	3	0	5	8	56	3	5	16	4	4	12
2	121	11	11	1	8	12	121	36	16	12	46	5
8	5	4	81	6	6	5	18	8	2	12	2	10
11	87	2	1	9	9	24	9	49	79	7	49	4
11	42	2	9	0	8	2	9	3	3	8	12	8
15	100	7	6	6	5	2	8	4	49	7	7	5
5	8	4	8	18	25	144	12	81	21	1	87	12
36	74	6	14	5	25	5	5	8	144	8	2	9
6	15	81	8	25	8	2	16	4	12	3	81	8
6	8	12	14	6	5	121	10	16	12	6	9	5
8	7	16	100	10	10	6	10	8	16	64	9	100

## DOUBLES FACTS

$1 \div 1 = \underline{\quad}$

$49 \div 7 = \underline{\quad}$

$4 \div 2 = \underline{\quad}$

$64 \div 8 = \underline{\quad}$

$9 \div 3 = \underline{\quad}$

$81 \div 9 = \underline{\quad}$

$16 \div 4 = \underline{\quad}$

$100 \div 10 = \underline{\quad}$

$25 \div 5 = \underline{\quad}$

$121 \div 11 = \underline{\quad}$

$36 \div 6 = \underline{\quad}$

$144 \div 12 = \underline{\quad}$

NAME: \_\_\_\_\_

Name ..... Class ..... Date .....

Grammar Practice

L.8.1.C VERB MOODS  
L.8.1.D

The mood of a verb refers to the manner in which a thought is expressed. The form of a verb used can vary, depending on its mood. There are three main verb moods: indicative, subjunctive (including conditional), and imperative.

**Indicative Mood**

The indicative mood is the most common mood used in English. A verb is in the indicative mood when it is part of a simple statement or question.

**Examples:** Johannes Gutenberg invented the printing press.  
Publishing technology allows people to read books, magazines, and newspapers.  
Publishing methods will change as technology improves.

When an indicative verb is interrogative (part of a question), the subject and verb order is usually reversed, with the helping verb coming before the subject.

**Examples:** Will we like the movie?  
How good will the movie be?  
Why do people love action movies?

**Subjunctive Mood**

The subjunctive mood expresses an idea that is contrary to fact, is doubtful or uncertain, or is an assumption or a wish. One way the subjunctive verb form is used is in a conditional mood. A verb is said to be conditional when it is in a sentence that expresses uncertainty or how things might have been under certain conditions. The conditional mood often uses a verbal phrase containing *could*, *should*, *would*, or *might*.

**Indicative:** If Jorgé is my science partner, I will be glad.  
**Subjunctive:** If Jorgé were my science partner, I would be glad.  
**Indicative:** If Raina studies hard, she might pass the test.  
**Subjunctive:** If Raina had studied more, she might have passed the test.

The subjunctive is also used for suggestions, recommendations, commands, or expressions of urgency, when *could*, *should*, *would*, or *might* do not appear.

**Indicative:** Kelly made sure that her sister studied hard.  
**Subjunctive:** Kelly suggested that her sister study hard.  
**Indicative:** It is clear that Kelly is a good student.

Name ..... Class ..... Date .....

**Grammar Practice**

- Subjunctive:** It is important that Kelly be a good student.
- Indicative:** Kelly's sister sometimes slept instead of studying.
- Subjunctive:** Kelly demanded that her sister not sleep rather than study.

**Imperative Mood**

A verb is in the imperative mood when it is part of a command or request. In an imperative sentence, the subject is always *you*. The word *you* may appear in the sentence, but it is usually just implied.

- Examples:** Empty the garbage.
- You be careful to do it right.
- Please, do it now and be careful.

**EXERCISE A**

Fill in each blank with the correct form of the verb. The verb you should use is given in parentheses. Add any helping verbs you think you need.

**Example:** If Wendy arrives on time, she will get (get) the job.

1. Henry wonders if Jake \_\_\_\_\_ (help) him do his chores.
2. Henry and Jake \_\_\_\_\_ (finish) the chores this afternoon.
3. It is necessary that Carla \_\_\_\_\_ (read) the book before the test.
4. If Carla reads the book, she \_\_\_\_\_ (be) prepared for the test.
5. Min promised that if Patty helped, she \_\_\_\_\_ (make) a cake for the party.
6. Min says to Patty, "\_\_\_\_\_ (break) the eggs over the bowl."
7. Patty watches as Min \_\_\_\_\_ (stir) the batter until it is smooth.
8. Patty thinks, "If I \_\_\_\_\_ (be) Min, would I be would I be as talented at baking as she is?"
9. Raymond \_\_\_\_\_ (be) taller than most of the kids in his class.
10. However, if Gabe grows another inch, he \_\_\_\_\_ (be) taller than Raymond



Name ..... Class ..... Date .....

## Grammar Practice

## L.8.1.A VERBALS

Verbals are words that are formed from verbs but function as other parts of speech. There are three kinds of verbals: participles, gerunds, and infinitives.

**Participles**

A **present participle** is formed by adding *-ing* to a verb. A **past participle** is usually formed by adding *-ed* to a verb. Sometimes a participle acts as the main verb in a verb phrase. As a verb, the present participle is used with forms of the helping verb to be, and the past participle is used with forms of the helping verb to have. A participle can also act as an adjective to describe, or modify, a noun or a pronoun.

**Examples:** The robin was **singing** in the tree. (present participle as a main verb)  
 Our cat stared at the **singing** robin. (present participle as an adjective)  
 Tammy has **tossed** the water balloon. (past participle as a main verb)  
 The **tossed** water balloon hit the sidewalk. (past participle as an adjective)

**EXERCISE A**

Underline each participle. Write in the blank *pres.* if it is a present participle and *past* if it is a past participle.

**Example:** pres. The running guard caught the pass from Troy.

- \_\_\_\_\_ 1. The nervous bird was pecking at the girl.
- \_\_\_\_\_ 2. A printout of the results has been taped to the door.
- \_\_\_\_\_ 3. The freezing lady put on her sweater.
- \_\_\_\_\_ 4. The spilled oil spread over the floor.
- \_\_\_\_\_ 5. By evening, they will have finished their assignment.
- \_\_\_\_\_ 6. Everyone has wondered what the great detective was thinking.
- \_\_\_\_\_ 7. Carol has rescued the trembling cat.
- \_\_\_\_\_ 8. The elected chairperson must work hard.
- \_\_\_\_\_ 9. David is throwing the rings at the milk bottles.
- \_\_\_\_\_ 10. They found out too late that they had entered by the wrong door.
- \_\_\_\_\_ 11. I made a running leap to clear the last hurdle.
- \_\_\_\_\_ 12. The engaging film star has smiled and posed for pictures.

Name ..... Class ..... Date .....

## Grammar Practice

- \_\_\_\_\_ 13. We were unable to keep warm in the blistering wind.
- \_\_\_\_\_ 14. Allan should have looked at the price tag first.
- \_\_\_\_\_ 15. We had recycled our discarded newspapers.
- \_\_\_\_\_ 16. The new video store had a limited number of foreign films.
- \_\_\_\_\_ 17. Do you see the antique car that is passing the new car?
- \_\_\_\_\_ 18. Have you ever watched Rain Man?
- \_\_\_\_\_ 19. I had noticed the necklace on the table.
- \_\_\_\_\_ 20. The bucket was rapidly filling with water.

**Gerunds**

In addition to being used as an adjective (as in participles), a verb form ending in *-ing* may also serve as a noun. A gerund is a verb form that ends in *-ing* and is used as a noun. It can be the subject of a sentence, the direct object, or the object of a preposition.

- Examples:**      **Flying** is a skill birds must learn. (subject)  
                          Young birds practice **flying**. (direct object)  
                          They can escape from dangers by **flying**. (object of a preposition)

**EXERCISE B: Circle each gerund.**

**Example:**      One way people share good times is by observing holidays together.

1. Some people keep Valentine's Day by sending heart-shaped cards to friends.
2. Sharing valentines with others can brighten a wintry February day.
3. The custom of celebrating Valentine's Day stretches back a long way.
4. Many historians believe the holiday sprang from an ancient Roman custom of honoring two brothers by the name of Valentine.
5. Coloring eggs is an activity that belongs to another holiday.
6. Easter is often associated with the blooming of spring flowers.
7. In Christian traditions, Easter marks the rising of Jesus from the dead.
8. At the same time as Easter, Jews observe Passover by preparing a special meal, a seder.
9. By eating the special foods at the seder, Jews remember the flight of their ancestors from slavery in Egypt.

Name ..... Class ..... Date .....

Grammar Practice

10. Playing jokes on people seems a strange way to celebrate a holiday.
11. However, exchanging gag gifts was a custom in France that grew into our April Fool's Day.
12. A lesser-known spring holiday is dedicated to planting trees—Arbor Day.
13. Various states enjoy observing Arbor Day any time from December to May.
14. Most people would agree that respecting mothers is important every day of the year.
15. In 1914 Congress approved reserving a specific day for mothers.
16. The second Sunday in May is the day set aside for remembering Mom.
17. Remembering our patriotic dead is the purpose of another May holiday, Memorial Day.
18. By decorating the graves of soldiers, we honor their memories.
19. In celebrating Memorial Day at the end of May, we pay tribute to those who died for their country.
20. Honoring all members of the armed services is the purpose of Veterans Day, celebrated in November.

**Infinitives**

An infinitive is another verb form that may function as a noun. It may also function as an adjective or an adverb. An infinitive is formed from the word *to* followed by the base form of a verb. The word *to* is not a preposition when it is used immediately before a verb.

- Examples:** Jenny is always looking for a chance **to read**. (infinitive)  
 She goes **to the library** at least once a week. (not an infinitive; the word *to* is used as a preposition)

An infinitive used as a noun can be the subject of a sentence or the direct object of a verb.

- Examples:** **To read** is enjoyable. (subject)  
 Jenny tries **to read** every day. (direct object)

**EXERCISE C: Circle each infinitive.**

**Example:** My sister is teaching me to play chess.

1. Do you like to eat Chinese food?
2. It's hard to choose a video because the selection here is so large.
3. I'm lucky to go to such a good school.

Name ..... Class ..... Date .....

## Grammar Practice

4. My little brother finds it almost impossible to wait until his birthday.
5. To ignore a sore throat is not a very good idea.
6. We have to leave immediately to go to the meeting at the recreation center.
7. To win the last three games of the season will not be easy.
8. To get a B on the next test is her objective.
9. To grow a moustache in time for the play became my dad's plan.
10. Let's get together to watch old Laurel and Hardy movies.
11. I know how to fix the glitch in your computer program.
12. To take a cruise in the Caribbean would be wonderful.
13. We love to wander around the old-fashioned shops at the history museum.
14. I don't want to argue about it now.
15. She said she'd love to hear from us.
16. The hospital chaplain stopped to say hello to Maggie after her operation.
17. Does Jordan like to sing in the Glee Club?
18. Did you ever want to go to a Broadway musical?
19. To wait for dinner doesn't bother me at all.
20. On her family's trip to the ocean, Megan is going to try scuba diving.



## Civics (History and Government) Questions for the Naturalization Test

The 100 civics (history and government) questions and answers for the naturalization test are listed below. The civics test is an oral test and the USCIS Officer will ask the applicant up to 10 of the 100 civics questions. An applicant must answer 6 out of 10 questions correctly to pass the civics portion of the naturalization test.

On the naturalization test, some answers may change because of elections or appointments. As you study for the test, make sure that you know the most current answers to these questions. Answer these questions with the name of the official who is serving at the time of your eligibility interview with USCIS. The USCIS Officer will not accept an incorrect answer.

Although USCIS is aware that there may be additional correct answers to the 100 civics questions, applicants are encouraged to respond to the civics questions using the answers provided below.

### AMERICAN GOVERNMENT

#### A: Principles of American Democracy

1. What is the supreme law of the land?
2. What does the Constitution do?
3. The idea of self-government is in the first three words of the Constitution. What are these words?
4. What is an amendment?
5. What do we call the first ten amendments to the Constitution?
6. What is one right or freedom from the First Amendment?\*
7. How many amendments does the Constitution have?

\* If you are 65 years old or older and have been a legal permanent resident of the United States for 20 or more years, you may study just the questions that have been marked with an asterisk.

8. What did the Declaration of Independence do?
9. What are two rights in the Declaration of Independence?
10. What is freedom of religion?
11. What is the economic system in the United States?\*
12. What is the “rule of law”?

**B: System of Government**

13. Name one branch or part of the government.\*
14. What stops one branch of government from becoming too powerful?
15. Who is in charge of the executive branch?
16. Who makes federal laws?
17. What are the two parts of the U.S. Congress?\*
18. How many U.S. Senators are there?

\* If you are 65 years old or older and have been a legal permanent resident of the United States for 20 or more years, you may study just the questions that have been marked with an asterisk.