

Name: _____

Count Your Colors

By Erin Horner

My mom always tells me to eat my veggies. Now she wants me to count their colors too. At first I thought that was silly. Now I think it's fun! Different colored vegetables contain different vitamins. My mom wants to make sure that I am eating different colored vegetables so that my body can be as healthy as possible.



The USDA wants me to eat a variety of veggies too. They've divided vegetables into subgroups. Dark green veggies, like romaine lettuce and broccoli, are in one group. Red and orange vegetables, like carrots and red peppers, are in another. Beans and peas make up the third group. Starchy vegetables, such as corn and potatoes, are also in a group. All other vegetables, like mushrooms, are in a group of their own.

MyPlate, the USDA's nutrition guide, suggests that girls ages nine to thirteen eat 1 1/2 cups of dark green veggies, 4 cups of red and orange vegetables, and 1 cup of beans and peas each week. They also recommend that girls eat 4 cups of starchy vegetables and 3 1/2 cups of other vegetables over the course of a week. That's a lot of veggies, but between meals and snacks, you have plenty of time to eat them all.

Boys ages nine to thirteen should actually eat even more veggies each week. The USDA recommends they consume the same amount of dark green vegetables as girls but wants them to eat 5 1/2 cups of red and orange veggies and 1 1/2 cups of beans and peas. They would also like boys to eat 5 cups of starchy vegetables and 4 cups of all the others.

You don't have to eat vegetables from each group every day, but with so many tasty (and colorful!) choices, why wouldn't you? Now when my mom says it's dinner time, I don't just ask what we're having; I ask what colors we're eating. I've got one week to eat a lot of different veggies. You do too! So pick a color and start snacking.

Count Your Colors

Questions

1. Why did the USDA divide vegetables into subgroups?

2. What is the tone of this passage?

A. lighthearted
B. sad
C. serious
D. humorous

3. Which of the following is an antonym for *variety*?

A. assortment
B. diversity
C. likeness
D. array

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4. Which of these is a fact?

- A. The USDA wants boys and girls aged 9-13 to eat the same amount of dark green veggies each week.
- B. All vegetables taste great.
- C. Orange vegetables are better than green.
- D. Vegetables are not an important part of your diet.

$$0.1 (0.6 (0.1 + 4)) =$$

$$(14 + 15 + 10 + 5) =$$

If $j = -4$ and $m = 45$ then
what is $12j - 11m + 4m = ?$

$$18v - 20.7 = 36.9$$

$$v =$$

$$5 + (99 \div 9) - 80 \div 10 =$$

$$0.8 (0.2 (0.8 \times 7)) =$$

The letter p is used to represent power points in a game, which can range from 459 to 1,454 points. Express this as an inequality.

The unknown value x is a multiple of 6, is greater than 170, and it is divisible by 16. What can be the lowest possible value of x ?

Sara climbed 9 meters in only 30.3 seconds. How many meters did she climb per second?

What is the remainder of 68 divided by 15?

$$2 \times 2 \times 2 \times 2 = x^4$$

What is the value of x ?

If $a = 3$ and $b = 78.7$,
then
 $3a + 78.7 - a =$

Name: _____

ornament • disability • excesses • prey • knead • manipulate
--

Each row, column, and box must have all the words from the word list. Write in the missing words.

					manipulate
	disability		excesses		
	ornament				
prey					
		disability			excesses
	knead	manipulate			prey

$9 \times 6 =$

$40 \div 10 =$

Which is the better buy?
Nine bags of candy for \$45
or three bags of candy for
\$27?

$1 \text{ km} = 1,000 \text{ m}$

$10 \text{ km} = \underline{\hspace{2cm}} \text{ m}$

$6 \text{ lb} = \underline{\hspace{2cm}} \text{ oz}$

Rewrite these in increasing order of length:

936 km, 137 mm, 41 cm, 6 dm, 348 m

$7 \times 9 = \underline{\hspace{2cm}}$

$8 \div 2 = \underline{\hspace{2cm}}$



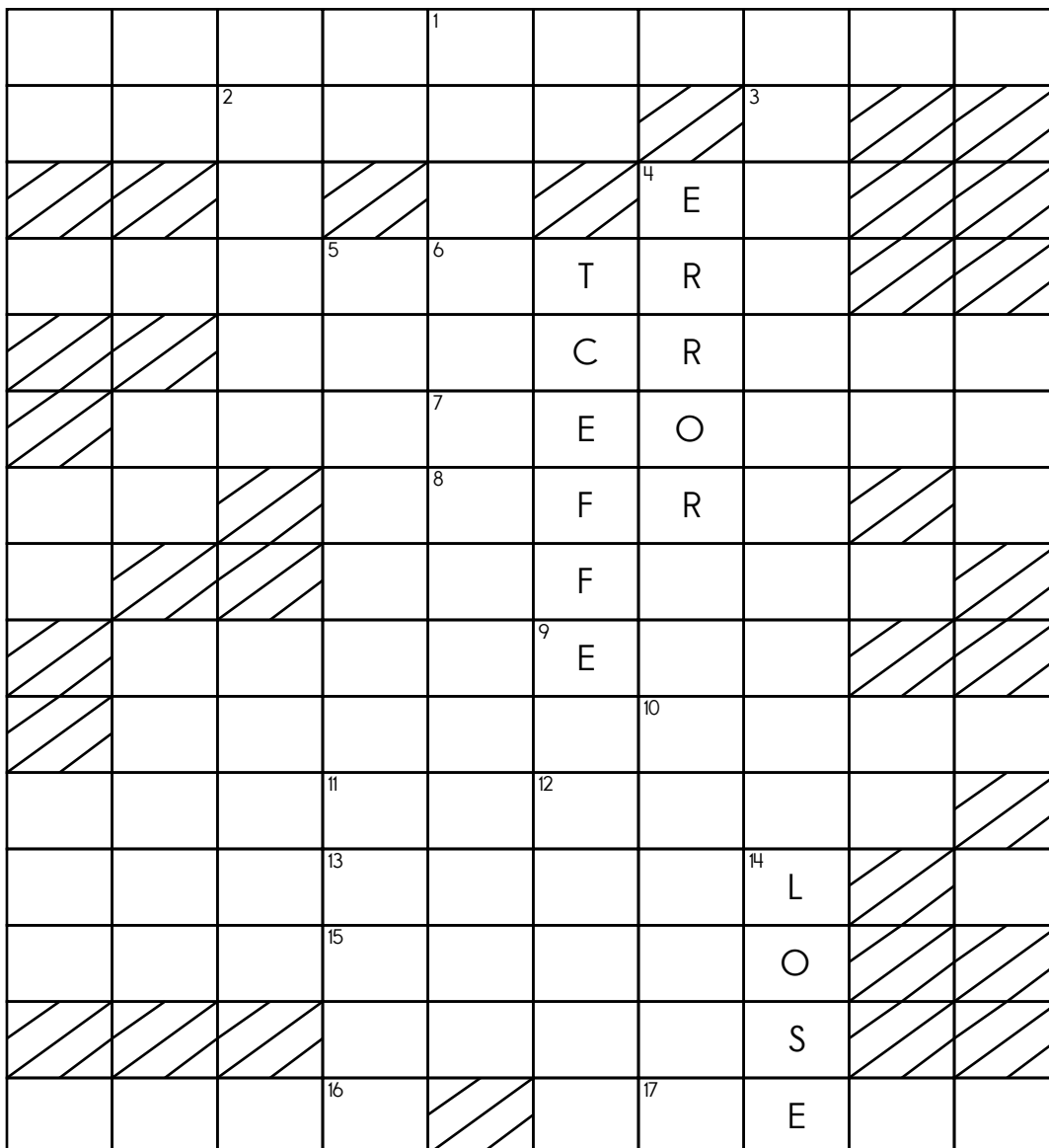
$958 + 485 = \underline{\hspace{2cm}}$

For 38,821,578,034, write the
digit that is in the hundred
thousands place.

Name: _____

Each of the words below starts on the number shown. A word can go up, down, left (backwards), right, or in any of the diagonal directions starting from the numbered box.

- | | | | |
|---|-------------------------------|-------------------------------|------------------|
| 1. EDIBLE
ENJOYMENT
EDIT
EXACT
ENERGY | 5. ACHE
ALTO
ANTICIPATE | 9. EXHIBIT
EFFECT
EASEL | 13. TRIO |
| 2. WIT | 6. ONCE | 10. SILO
SENSOR
SOLO | 14. LOSE |
| 3. PERMISSION | 7. MENTIONED | 11. AUNT | 15. EVEN |
| 4. ERROR | 8. EFFORT
ECHO | 12. HOARSE | 16. DUET
DOES |
| | | | 17. RELY |



Name: _____

Prickly Daddy!

By Colleen Messina

Daddy came to breakfast. He went to the kitchen. Becky was at the table already. He gave Becky a hug. He pressed his cheek onto Becky's. Ouch! Daddy was prickly. Becky told Daddy that his cheek was rough. She told him that his cheeks looked like they had been sprinkled with pepper. Daddy laughed loudly. He said that he forgot to do something. He went back to his bathroom. He was gone for a few minutes. Becky kept on eating breakfast. She ate a sausage. She ate toast with butter and jam. She drank orange juice. Then Daddy came back, and his face looked shiny. He smelled good. Daddy was not prickly any more! Becky gave Daddy a kiss on his smooth cheek.

Prickly Daddy!

Questions

- _____ 1. Where was Becky in this story?
- A. in the dining room
 - B. in the living room
 - C. in the kitchen
 - D. in her bedroom
- _____ 2. What did Becky drink at breakfast?
- A. grape juice
 - B. apple juice
 - C. orange juice
 - D. lemonade
- _____ 3. At the end of the story, Daddy was not prickly.
- A. True
 - B. False
4. What did Daddy go and do?

$$\begin{array}{r} 85 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 25 \\ \times 56 \\ \hline \end{array}$$

$$\begin{array}{r} 93 \\ \times 19 \\ \hline \end{array}$$

$$79,439 + 28,128 = \underline{\hspace{2cm}}$$



Name: _____

Rose bought $1\frac{1}{2}$ pints of blueberries. She used $\frac{2}{3}$ of the blueberries to make muffins. How many pints of blueberries does she have left?

There are two hundred students at edHelper Middle School in Brain City. If 54% of the students are female, what is the ratio of female students to male students? Make sure your answer is in lowest terms!

Put one line under the smallest number. Put two lines under the next smallest, and so on. The largest number should have 4 lines under it.

-7.6

9.4

9.2

-7.5

Amy can't wait for her friend to visit.

"As soon as you leave the airport, drive 49 miles to exit 5," says Amy.

"I don't think you mean miles. They use kilometers here," says Sarah.

Help Amy tell Sarah how many kilometers to drive. Use 1 mile = 1.6 kilometers.



Name: _____

Get a fidget spinner! Spin it.

I needed to spin _____ time(s) to finish.

$$9 - 5 + 5 + 9$$

Write a 2-digit even number.

$$\text{triple } 41 =$$

$$12 \times 6 =$$

Is 35 a composite or a prime number?

How many total legs are on 70 dogs.

R, K, P, J, N, I, L,
_____, J, G

Write the missing family fact.

$$98 \div 14 = 7$$

$$98 \div 7 = 14$$

$$14 \times 7 = 98$$

What is the area of a rectangle with sides 3 cm and 9 cm?

Know how many inches in a foot? Okay, smarty pants, how many inches in 5 feet?

The diameter of a circle is 1,378 cm. What is the radius of this circle?

64, 75, _____, 97, 108,
119



Name: _____

Spin again.

I needed to spin _____ time(s) to finish.

$$45 \div 9 =$$

Write the least possible
4-digit number using only 3
different numbers.

Find the product of 6 and 4.

What is the sum of 8 and
78?

Write the number that is
one hundred more than
7,125.

$$4 + 1 \times 3$$

29, 32, 37, 44, 53, 64,
77, 92, 109, 128,
_____, 172, 197

Write the first 5 multiples of
6.

Sarah gave out a survey.
The answers she got back
were 31, 20, and 29. What
is the range of these
numbers?

H, _____, I, G, J, H,
K, I, L, J, M, K

What is the area of a
rectangle with sides 2 cm
and 7 cm?

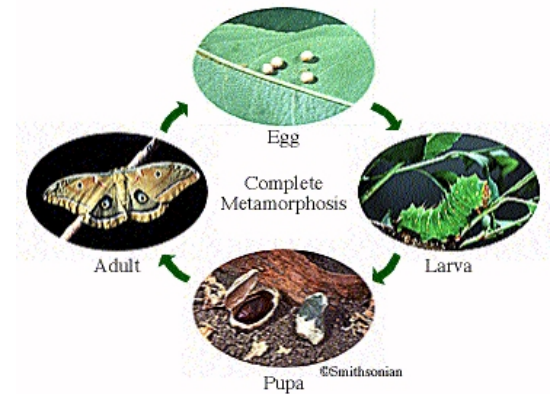
$$9 \div \frac{1}{3}$$

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Metamorphosis of Insects

Insects are cold-blooded animals with three pairs of legs. They have three segments in their bodies (head, thorax, and abdomen). Most insects have two pairs of wings. A hard, external skeleton covers an insect's body to protect it from its predators. This natural shield is called an exoskeleton. Beetles, butterflies, ladybugs, and grasshoppers are all insects.

Adult insects may look quite different from their childhood appearance. That is because insects go through a stage called metamorphosis. Metamorphosis is a change of body form, appearance, and, sometimes, even diet. All insects undergo one of the two types of metamorphosis - complete or incomplete.



Butterflies experience complete metamorphosis. After hatching from eggs, caterpillars look very different from their beautiful butterfly parents! Caterpillars always have a good appetite - they spend most of their time chewing leaves. As they keep eating and growing, their skin becomes too tight! So they shed their skin to reveal a new, soft one beneath with extra space inside for growing. The process of shedding their skin is called molting. Caterpillars molt several times until they grow to their full size. Then, caterpillars produce a pupa, also called chrysalis, and seal themselves inside. Inside the pupa the whole body is reorganized, and a butterfly emerges. Ladybugs, bees, ants, flies, and moths all go through complete metamorphosis.

Dragonflies experience incomplete metamorphosis. Young dragonflies, called nymphs, look very much like their parents, except that nymphs have no obvious wings. Nymphs have "wing buds" outside their bodies. Wing buds grow longer at each molt, and they become fully functional wings after the final molt. Dragonflies and other insects that undergo incomplete metamorphosis do not produce a pupa. They only shed their exoskeletons until they reach their adult size. Other than dragonflies, cockroaches, grasshoppers, and termites all go through incomplete metamorphosis.

Are insects the only animals experiencing metamorphosis? No! Amphibians also go through this change. For amphibians like frogs, their young are called larvae or tadpoles. Tadpoles have a tail, have no legs, and live in water. After metamorphosis, however, frogs have no tail, have four legs, and can live both in water and on land.

Metamorphosis of Insects

Questions

- _____ 1. Both amphibians and insects go through metamorphosis.
 - A. true
 - B. false
- _____ 2. Bees experience _____ metamorphosis.
 - A. complete
 - B. incomplete
- _____ 3. A caterpillar looks just like a butterfly except that it only has wing buds.
 - A. true
 - B. false

Name: _____

_____ 4. Which of the following insects go through complete metamorphosis?

- A. ladybugs
- B. termites
- C. dragonflies
- D. grasshoppers

_____ 5. Which of the following insects go through incomplete metamorphosis?

- A. butterflies
- B. ladybugs
- C. termites
- D. beetles

_____ 6. Which of the following animals do NOT go through metamorphosis?

- A. cockroaches
- B. penguins
- C. butterflies
- D. frogs

_____ 7. If an insect makes a pupa, it is going through incomplete metamorphosis.

- A. false
- B. true

Circle the percentage that is closest to 35 out of 62:

93%
48%
15%

If $a = 4$ and $b = 80.2$,
then
 $3a + 80.2 - a =$

$p - \$54 = \38
What is the value of p ?

$0.8 \cdot 4 =$

$|-75| \times |48| =$

Simplify.

$\frac{33}{55} =$

$\frac{1}{5} \times \frac{8}{10}$

$6 \times 6 \times 6 \times 6 \times 6 = x^5$

What is the value of x ?

$(0.4)(0.12)$

Name: _____

Write an equation for the following word sentence: The number of "Dear Santa" letters written, less 15 letters, is 28 letters.

Hunter wrote an essay of 3.5 pages on the meaning of freedom. Alex wrote an essay on the same topic. Together, their essays were 8.1 pages. Write an equation to find out how many pages Alex wrote. Solve the equation.

Show the steps to solve $6(36 + 7 + 11) \times 11 - 92 - 65 \div 5$

Parentheses

Exponents

Multiplication & Division (or Division & Multiplication!)

Addition & Subtraction (or Subtraction & Division!)

Rewrite this mixed number as an improper fraction.

$$5 \frac{2}{3}$$

Name: _____

Paul's axe was getting old and was not cutting very well. He paid \$9,369.20 for a new one. (Such big axes are very expensive!) He paid for the axe with 94 \$100-bills. How much change did he get?

The parade began at 3:30 p.m. It lasted for 48 minutes. What time was it over?

At the National Rivers Month celebration, Kevin spent \$18.91 on a book about rivers and \$2.25 each on five sets of postcards. How much did he spend in all?

$$2 \times (96 \div 8) - 36 \div 12 =$$

Simplify.

$$\frac{24}{30} =$$

$$13c - 28.4 = 52.2$$

$$c =$$

It costs \$0.008 per hour to run a 100-watt light bulb. It costs \$0.017 per hour to run a small radio. How much more does it cost to run a radio for 16 hours than it costs to run a 100-watt light bulb for the same amount of time?

A roll of $\frac{1}{2}$ -inch wide masking tape costs \$0.61 per yard. A roll of $\frac{3}{4}$ -inch wide masking tape costs \$0.89 per yard. How much more does a 60 yard roll of $\frac{3}{4}$ -inch wide masking tape cost than a roll of $\frac{1}{2}$ -inch wide tape?

Wendy planted 13 tulip bulbs in a circular flowerbed next to the front door to her house. The diameter of the flowerbed is 4 feet. What is its area? Round your answer to the nearest hundredth. (Note: Use 3.14 for pi.)

$$8 \times 11 =$$

How many pounds are in 112 ounces?

_____ pounds

$$24 \div 8 = \underline{\hspace{2cm}}$$

Name: _____

Emily likes milk. She is the only one in her family to drink milk, and she drinks exactly one cup a day.

"That makes no sense," says her brother, Jack. "Is this another weird math problem? At least it doesn't involve baseball cards like my math books! How about I give YOU a question. We only buy milk in gallon containers. We ran out of milk for Emily today, so my mom bought two gallons of milk. How long do you think that will last?"

"Think you are so smart in answering my first question?" asked Jack. "Did you consider expiration dates? Well, one of the gallons of milk expires in 12 days. The other, for some weird reason, doesn't expire for 45 days. Strange! Based on this new information, does that change your answer to my first question?"

It might be helpful to know that 4 quarts is equal to 1 gallon. Also, 1 quart is equal to 4 cups. Can you figure out how many cups are in a gallon?

Name: _____

Thanksgiving Day Parade

By Cindy Grigg

What do you do on Thanksgiving morning? You might watch Macy's Parade. It is in New York City. This parade has floating, helium filled balloons. Snoopy will be there. You might see Dora. Kermit will be there. You might see Buzz or Shrek. There are giant floats. There are funny clowns. There are marching bands, too. The parade route is two miles long. Every year, about three million people are there. They watch it live. More than forty million Americans see it on TV. This parade began in 1924. There were no balloons or floats that year. It had live animals from the zoo. In 1969, the first floats were made. They are built in New Jersey. Some of them may be forty feet tall! They must be folded when they come into the city. The balloons are inflated the night before. Workers toil all night! They must be ready for the parade's nine o'clock start. More than four thousand volunteers help along the parade route. Macy's Parade is a tradition for many people.



Thanksgiving Day Parade

Questions

_____ 1. Macy's Parade does NOT have _____.

- A. marching bands
- B. helium balloons
- C. floats
- D. food

2. More than _____ million people watch the parade on TV every year.

_____ 3. The first year, the parade had which of these?

- A. zoo animals
- B. helium filled balloons
- C. circus performers
- D. floats

_____ 4. The author most likely wrote this story to _____.

- A. entertain the reader by describing a humorous situation
- B. teach readers how to build a parade float
- C. persuade the reader to go see the parade live in New York City
- D. inform the reader about the Macy's parade

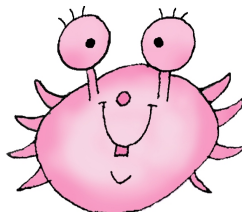
Name: _____

Gavin has one hundred seventeen square stickers of different colors that each measure three inches on a side. He wants to use them to cover the fronts of some notebooks he has. If his notebooks measure nine inches by twelve inches, how many whole notebook fronts can he completely cover with the stickers?

The world's largest pizza was made in South Africa. Its area was $11837 \frac{3}{5}$ square feet. If the pizza were cut into $1 \frac{1}{2}$ square foot pieces, how many pieces could be cut from the pizza?

Miss Walker will teach her students to make friendship bracelets tomorrow. She wants to organize all the materials today. Each student will need 6 pieces of thread. If each piece is $1 \frac{1}{3}$ feet long, how many feet of thread will each student get?

The melting point of trifluoroacetophenone is -40°C .
The melting point of nitroacetophenone is 81°C .
Another similar compound melts at -60°C .
What is the average melting point of the compounds?



Name: _____

$$2 \overline{) 48}$$

$$40 \overline{) 328}$$

$$45 \overline{) 1469}$$

$$33 \overline{) 924}$$

$$48 \overline{) 3168}$$

$$22 \overline{) 1024}$$

$$25 \overline{) 200}$$

$$40 \overline{) 2670}$$

$$36 \overline{) 72}$$

$$2 \overline{) 60}$$

$$6 \overline{) 244}$$

$$30 \overline{) 900}$$

Rewrite $\frac{7}{100}$ as a decimal.

$$\frac{2}{5} \times \frac{4}{5}$$

$$\frac{10}{11} \div \frac{7}{44} =$$

$$3 \times 70 \div 10$$

$$|-11| - d = 14$$

$$d =$$

90, 100, 110, 120,
_____, 140, 150



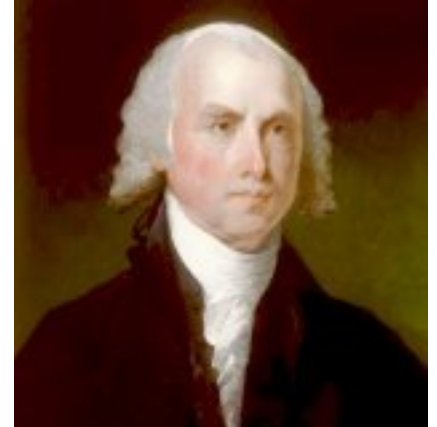
Name: _____

James Madison

By Jane Runyon

If you could have met James Madison and his wife, Dolley, you might have been surprised. You might have thought that he could not have been president of the United States. He was just 5 feet 4 inches tall and weighed 100 pounds. He was sickly and frail. He didn't feel comfortable in the company of other people. Dolley, on the other hand, was an attractive woman who was full of life. She was always considered to be the "life of the party." What kind of president could a man like Madison be?

James Madison was born in King George, Virginia. The year was 1751 and the date, March 16. His father was a wealthy man. He owned a tobacco plantation in Orange County, Virginia. Madison grew up on that plantation. When the time came for James to go to college, he chose to leave Virginia and attend the College of New Jersey. Today that college is known by the name of Princeton. Madison completed four years of work in just two years. He worked himself to the point of exhaustion to accomplish this feat.



James returned home to recuperate. It didn't take him long to jump into a political career. He served in the Virginia legislature from 1776 to 1779. He learned from Thomas Jefferson about politics.

In 1780, Madison became a member of the Constitutional Convention. He made a name for himself as a hard worker. He knew the rules of debate, and he insisted that everyone follow those rules. He was happy with what the first Constitutional Convention had been able to accomplish until he got home. When the new government was put into place, he found it to be weak. He campaigned long and hard for a new Continental Congress. He wanted a constitution to be written that would give new strength and backbone to the government the colonies had fought for.

Madison joined forces with John Jay and Alexander Hamilton to write a series of essays which became the springboard for the Constitution. These essays were called *The Federalist Papers*. Madison's philosophy of what a government should be is evident in one of his essays. He says, "*If men were angels, no government would be necessary. If angels were to govern men, neither external nor internal controls on government would be necessary. In framing a government which is to be administered by men over men, the great difficulty lies in this: you must first enable government to control the governed; and in the next place oblige it to control itself.*"

Madison's hard work was recognized with the ratification of the Constitution. Many called him the "Father of the Constitution." Madison dismissed this title by saying that the Constitution was "not the offspring of a single brain," but "the work of many heads and many hands."

When Thomas Jefferson became president in 1800, James Madison became the Secretary of State in Jefferson's administration. When Jefferson prepared to leave office in 1808, Madison decided to run for election himself. Madison soon found that this was not a good time for any president. Both England and France were threatening to go to war with the United States. France and England each set up blockades to keep goods from being shipped to the United States or for goods from the US to be sent to either of those countries. These blockades threatened the economy of the new country. Madison proposed a deal to England and France. The US would do business with whichever of the two countries dropped the blockade. They would cease to do business with the other. England refused the offer. Napoleon of France said he would drop the blockade, but he didn't.

England became angered by the US decision. They invaded the United States, took over Washington, D. C., and forced Madison to flee the nation's capital. The war that ensued was called the War of 1812. The United States was really not prepared for such a war. They were able to hang on against the attack by the English. Eventually, a peace was agreed to, and the Treaty of Ghent was signed in 1814. One of the most significant battles of the War of 1812 was fought in New Orleans. General Andrew Jackson and his troops were able to defeat the British regulars and send them on their way. The ironic thing about this battle is that it was fought fifteen days after the peace treaty was signed. It took that long for news of the end of the war to reach Jackson and his men.

Name: _____

Madison served eight years as president. When he retired from office, he and his wife returned to his tobacco plantation in Virginia. The last ten years of his life were spent as the head of the University of Virginia. The volumes of notes that Madison kept while working on the Constitution for the United States were not, at his request, published until every signer of the Constitution had died. It is thought that he did not want any of the thoughts expressed during these meetings to be used in the interpretation of the Constitution. He believed that the words of the Constitution, not the thoughts of its creators, should be used to form government.

James Madison died on June 28, 1836. He may have been short in stature and short on words, but his influence on the founding of the United States has been strong and lasting.

James Madison

Questions

_____ 1. James Madison was a native of New York.

- A. true
- B. false

_____ 2. What educational feat did Madison accomplish as a young man?

- A. He didn't miss a single day of school his whole life.
- B. He received straight As all through school.
- C. He majored in law, medicine, and religion.
- D. He finished four years of college in two years.

_____ 3. Whom did Madison model himself after in his political life?

- A. John Jay
- B. James Monroe
- C. George Washington
- D. Thomas Jefferson

4. Why did Madison feel that a second Constitutional Convention was needed?

5. There is a quote written by Madison in one of his essays in this reading passage. In your own words, what do you think this quote is saying?

_____ 6. What war occurred during Madison's term as president?

- A. War of Ghent
- B. Revolutionary War
- C. War of 1812
- D. French and Indian War

Name: _____

_____ 7. Whom did Madison work with on the Federalist Papers?

- A. John Jay and Alexander Hamilton
- B. Thomas Jefferson and James Monroe
- C. Thomas Jefferson and Alexander Hamilton
- D. John Jay and James Monroe

_____ 8. How did James Madison record the proceedings of the Constitutional Convention?

- A. He recorded all of the proceedings on tape.
- B. He wrote a book about the convention.
- C. He took notes that were published after every signer had died.
- D. He published a report in the newspaper every day during the Convention of the day's discussions.

Rewrite $13 - 9$

____ + ____ = ____

What is the number that is
5 less than 3?

$$2 - 3 - 1 =$$

$$0.8 \times 0.4$$

$$5 + 11 \times 8 - 5 - 10$$

$$(10 + 15 + 13 + 7) =$$

$$18.9818 \times 10^4 =$$

If $m = 7$ and $x = -18$ then
what is $6m + 13x + 3x = ?$

Use $>$, $<$, or $=$ to complete.

$$10\% \text{ — } \frac{2}{7}$$

$$\frac{1}{12} \text{ — } 53\%$$

$$\frac{1}{2} \text{ — } 77\%$$

What is the mode of the
following number set?

63, 65, 68, 70, 72, 75, 74, 66,
62, 60, 61, 71, 69

H, L, J, _____, L, N, N,
O, P, P

What is the remainder of
159 divided by 18?

Name: _____

Ready to make equations? There is a missing equation in each box.

Circle the numbers once you find it!

A

<u>72</u>	85	17
-	50	26
	40	88
		20

Find a subtraction fact.

B

56	31	42
-	74	52
	84	76
		58

Find a subtraction fact.

C

44	39	51
-	53	97
	42	56
		27

Find a subtraction fact.

Equations:

Write the equation facts you found.

A	72	-		=	
B		-		=	
C		-		=	

$y = x + 17$

$y = 25$

What is the value of x ?

$|-8| + t = 4$

$t =$

In what quadrant would you find the point $(-6, 14)$?

$18 - t + 6 = 8$

What is the value of t ?If $p = -8$ and $m = 51$ then what is $5p + 9m - 4m = ?$

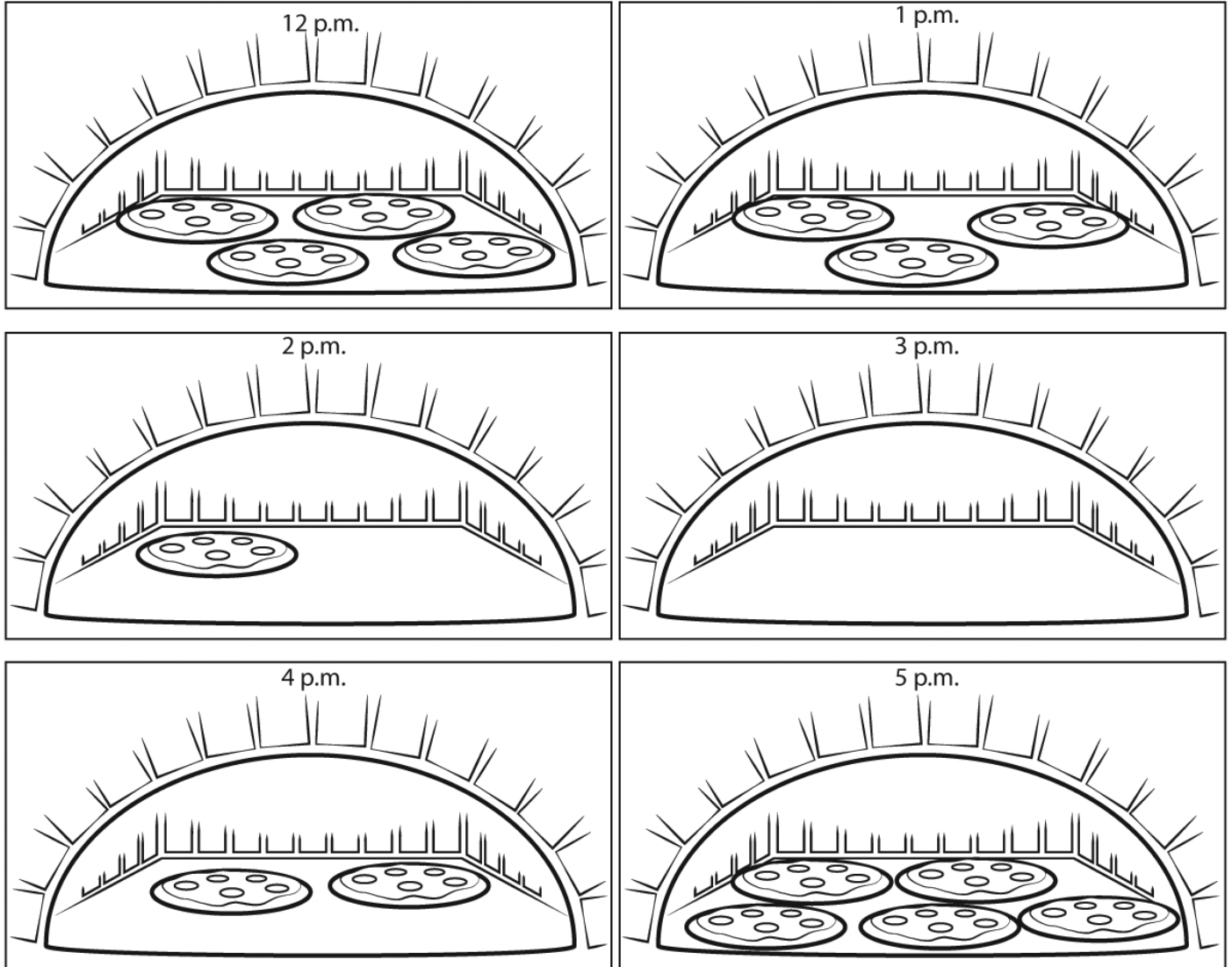
Circle the least amount:

24%

0.38

 $\frac{12}{25}$

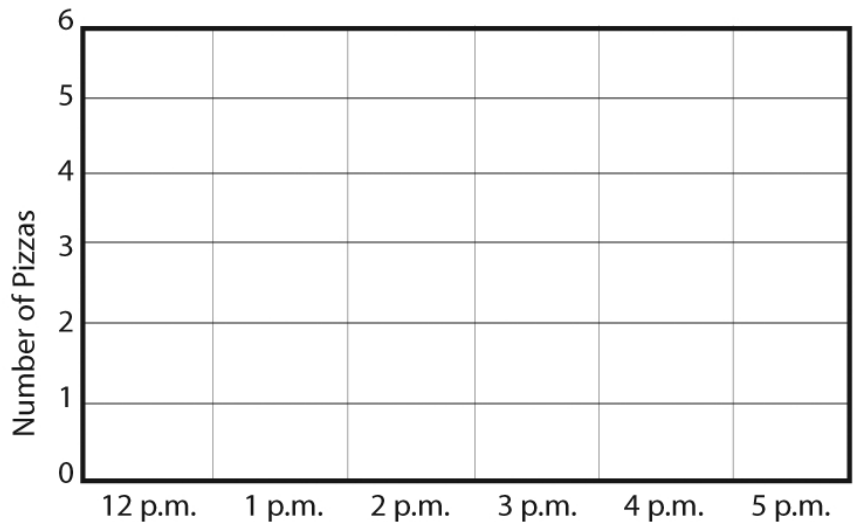
Name: _____



How many pizzas are cooking at 12 p.m., 1 p.m., 2 p.m., 3 p.m., 4 p.m., and 5 p.m.? Put a dot on the graph to coordinate with each picture. Connect the dots to complete the line graph.

At what time were the most pizzas cooking?

At what time were the least pizzas cooking?



Name: _____

Soils with a lot of clay hold more water than soils that have less clay. Let's say you have two soil samples of equal mass (15 grams each) that are composed mostly of sand and clay. Sample one is found to be 18% water, and sample two is found to be 20% water. If you had to make a choice, which one do you think had the most clay in it?

Anna whined, "I don't understand all this technical stuff. The instructions say I should compress my files. How do I do that?" The instruction manual that came with the software had very clear instructions, but Anna liked being contrary, so she never read instructions. The software will compress a file to one-ninth of its uncompressed size. If it is used to compress a file of 182,789 bytes, how many bytes will the new file take up?

Wendy bought a box of stickers that looked like little white doughnuts to reinforce the pages in her notebook. There were two thousand, six hundred stickers in the box, but she could not use some of them. One-fourth of them were stuck so tightly together that she could not detach them from each other. Eighty-six of them had no holes in the center. One-tenth of them had no glue. How many were left that she could use?

A crate of petrified wood recently sold at the local auction. There were about forty-four pieces and the total weight of the pieces was 210.62 pounds. What was the average weight per piece? Round your answer to two decimal places. _____ pounds

April is a good scorer for her soccer team. She scored 10 goals during regular play, and she scored 3 on penalty kicks. What percent of her goals did not result from penalty kicks? Round your answer to the nearest tenth of a percent.

Let's say that a certain force exerts a pressure of 27 Pascals on a square area. If the force is slowly increased until the pressure is 144% of the original pressure, what is the new pressure?

Name: _____

Sugar Substitutes

By Jennifer Kenny

So many people...so much sugar. Look around at what people are eating. Much of it includes sugar-coated breakfast cereals, soda, ice cream, and candy. As a result, while it may not be coming directly out of the sugar bowl, people are consuming a tremendous amount of sugar. In fact, the average American eats 22 teaspoons of added sugar a day from his food choices. The average teenager eats 34 teaspoons! This doesn't include the sugars found naturally in fruit or dairy products. Forty percent of the daily amount consumed is table sugar, sixty percent is corn sweetener used in sodas and other sweet drinks, and a minute amount is from things like honey.

When people eat all of that sugar, they are bound to gain weight from all the extra calories. Then many will decide to lose or maintain weight. However, they haven't lost their sweet tooth. That's where sugar substitutes, or artificial sweeteners, come in.

Sugar substitutes allow people to enjoy the taste of their favorite sweet foods but with fewer calories. Although the Food and Drug Administration is constantly evaluating new products, there are currently six sugar substitutes that are approved. They are saccharin, aspartame, acesulfame-K, sucralose, neotame, and stevia. More than one hundred forty million Americans use these all the time.

Sugar substitutes, or artificial sweeteners, have been around a long time. In 1879, saccharin was first discovered and used to sweeten food products. It became especially popular when there was a shortage of sugar during the world wars. Saccharin is considered three hundred times sweeter than sugar. It is relatively inexpensive and can last a long time. It can be used for baking. It is very commonly used in sodas, baked goods, jams, chewing gum, canned fruit, candy, dessert toppings, and salad dressings, as well as cosmetic products, vitamins, and pharmaceuticals. It is also called Sweet n Low. In the past, saccharin's safety has been questioned off and on as it has been linked to some cancers in animal studies. However, researchers insist that humans would have to drink 850 cans of diet soda a day in order to equal the same amount of saccharin the rats consumed in the study.

Another sugar substitute is aspartame. It is one hundred eighty times sweeter than sugar. It is frequently found in drinks, cereals, desserts, gum, and right on the table in packs of NutraSweet or Equal. Questions about its link to brain tumors have been raised, but the FDA stands by aspartame. It also says that headaches and mood swings are not related to aspartame either. The FDA does agree, though, that those who are sensitive to phenylalanine may wish to avoid it.

Acesulfame-K is two hundred times sweeter than sugar. It is calorie free. It can be found in gelatin, baked items, candy, drinks, and frozen desserts.

Sucralose, as seen in Splenda, is six hundred times sweeter than sugar. It, too, is considered a no calorie sweetener because it is not digested by the body. It actually is made from table sugar. It can be used basically anywhere sugar is - in desserts, drinks, gums, juice, gelatins, and added right into coffee or tea. It has no warning labels on it and is considered safe for all people. It can be used in cooking and baking and people often comment that it tastes like sugar.

Hundreds of foods on the market are currently sweetened with sugar substitutes. People typically seek out these products for one of three main reasons. The first reason is to save calories. A teaspoon of sugar contains sixteen calories. A teaspoon of a sugar substitute contains four calories or less. Another reason people choose sugar substitutes is because they don't cause cavities. Therefore, sugar substitutes can be better for dental health than sugar. The third main reason is to prevent health problems. Most commonly, diabetics benefit from foods prepared with sugar substitutes. These sugar substitutes are not considered carbohydrates so they don't raise blood glucose levels. If a diabetic is watching carbohydrates and utilizing sugar substitutes, they can make good choices while enjoying a sweet taste. In fact, the American Diabetes Association calls these artificial sweeteners free foods.

That's the scoop on sugar substitutes. With low or no calories plus a sweet taste, they may be helpful to diabetics or those attempting to lose weight. That's why the American Heart Association and the American Diabetes Association endorse using sugar substitutes.

Name: _____

Sugar Substitutes

Questions

- _____ 1. The average American eats around _____ teaspoons of sugar through foods each day.
- A. 5
 - B. 50
 - C. 20
 - D. 10
- _____ 2. Artificial sweeteners are _____.
- A. also called sugar substitutes
 - B. low or no calorie
 - C. sweet in taste
 - D. all of the above
- _____ 3. Which is NOT an approved sugar substitute in the eyes of the FDA?
- A. honeylite
 - B. saccharin
 - C. sucralose
 - D. aspartame
- _____ 4. Which sugar substitute has been linked to cancer in rats?
- A. acesulfame-K
 - B. saccharin
 - C. aspartame
 - D. sucralose
- _____ 5. Those people who are sensitive to phenylalanine should choose aspartame.
- A. false
 - B. true
- _____ 6. Sucralose is considered six hundred times sweeter than sugar.
- A. false
 - B. true
- _____ 7. Which is NOT a reason people use sugar substitutes?
- A. to take risks
 - B. to avoid cavities
 - C. to save calories
 - D. to prevent health problems

$\begin{array}{r} 292 \\ + 251 \\ \hline \end{array}$	$\begin{array}{r} 26 \\ + 42 \\ \hline \end{array}$	$7 \times 5 = \underline{\hspace{2cm}}$	$\begin{array}{r} 507 \\ - 252 \\ \hline \end{array}$	$\begin{array}{r} 90 \\ - 23 \\ \hline \end{array}$
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Name: _____

Jason was getting a new carpet for his room. He was happy because his parents let him have just the color he wanted — bright red! His room was made up of two rectangles. The first one was 5.5 feet long and 8.4 feet wide. The other rectangle was 10 feet long and 13.5 feet wide. How many square yards of carpet will be needed? (Hint: 9 square feet = 1 square yard)

Ava made a calendar to organize her life. She used her computer and entered all her plans on the appropriate days. She had to be careful, though, because the squares were so small. Each square was 1.05 inches on each side. What was the total area of 30 squares? Round your answer to the nearest hundredth.

$$0.7 (0.5 (0.7 \times 2)) =$$

$$0.4 (0.3 (0.4 + 2)) =$$

Simplify.

$$\begin{array}{r} 2,400 \\ 4,800 \end{array} =$$

Connor works at Tulips and More after school. He is paid \$6.50 per hour. He worked $3\frac{3}{4}$ hours on Monday, $2\frac{1}{2}$ hours on Tuesday, 3 hours on Wednesday, $2\frac{1}{2}$ hours on Thursday, and 30 minutes on Friday. How much will he be paid this week?

Anne is making small gift bags of tea. Each bag holds $1\frac{1}{2}$ ounces of tea and sells for \$3. She buys the tea for \$10.60 per pound. Her other supplies cost \$0.40 per bag. How much profit (or loss) will she make per pound of tea?

Mr. Young works for a company that makes all kinds of pretzels. He works 40 hours each week. If he gets paid \$14.35 per hour, how much will he be paid for working for 2 weeks?

Name: _____

Nathan was keeping score at a local basket-shooting contest. Each contestant took 10 shots from a specified distance, and Nathan recorded the results. He wrote the results as a fraction. For example, if a contestant made 2 out of 10, he wrote down $\frac{2}{10}$. When the contest was over, he had to convert each score into a percent. The first score on his sheet was $\frac{5}{10}$. What percent should he write down?

Maria tried to evaluate all parts of her life by answering several sets of questions. The first day she spent $2\frac{1}{3}$ hours working on the questions. The second day she spent $1\frac{1}{2}$ hours answering them. How much time did she spend answering questions?

$$16g - 24.5 = 71.5$$

$$g =$$

What is the greatest common factor of the numbers 112 and 32?

Rewrite $\frac{22}{25}$ as a decimal.

Robert ran a mile in 5:05.21 and this week he improved to 4:46.48. How many seconds better was his time this week?

Ms. Floop earned a 3% commission on every flower arrangement she sold. If she sold an arrangement for \$69.34, how much was her commission on the sale?

$$(8 + 8) \times 1$$

$$7 + 30 \div 3 - 40 \div 10 =$$

$$9 + 8 \cdot 11 + 4$$

Name: _____

edHelper

Rainforest Plants

By Sharon Fabian

The rainforest is green and growing and lively. There is lots of rain, over 100 inches of rain per year. In tropical rainforests, it is warm and sunny all year long. Since sunshine and rain are two of the things that plants need to grow, you can see why tropical rainforests are home to many, many plants. In fact, more than half of the world's different species of plants live in tropical rainforests.



The major plants in a tropical rainforest are trees. There are more types of trees in the rainforest than there are anywhere else. Rainforest trees have tall straight trunks and smooth bark. The taller ones have a canopy of leaves up to 100 feet above the forest floor.

Another type of rainforest plant is the epiphyte. Epiphytes are plants that grow on trees instead of on the ground. Orchids, bromeliads, and ferns are rainforest epiphytes. Bromeliads are interesting plants that have leaves that form a holding tank for water. These leaf tanks can hold from less than a pint to more than ten gallons of water. These little tanks of water are home to whole communities of small creatures, including bacteria, mosquitoes, and tadpoles. There are also epiphytes that live on other plants, including mosses, liverworts, and lichens. Epiphytes get water and nutrients they need from the rain and air.

Vines are also important rainforest plants. Lianas are woody climbing vines. They start as a ground plant and grow up the trees to the canopy. There are around 2,500 species of rainforest vines. The pitcher plant is a climbing carnivorous plant that traps bugs in its pitcher for dinner.

There are large tropical rainforests in South America, Africa, Australia, and Asia. At one time, rainforests covered fourteen percent of the Earth's surface. Now the area has been reduced to less than 5 percent. This is because large areas of rainforest have been cleared to build farms and ranches and to harvest the trees for lumber. This is the same thing that happened to most of our North American forests many years ago.

Many people hope to find better ways for people in tropical rainforest countries to earn a living than by cutting down their rainforests. The rainforest is home to many valuable plants. In the future, people in rainforest countries may earn a better living by harvesting rainforest products while leaving the trees standing. This way the products will be available year after year.

Rainforest plants, especially trees, produce many valuable food items. Brazil nuts come from a rainforest tree. Bananas, oranges, grapefruit, figs, lemons, avocados, tomatoes, and many other fruits and vegetables originated in the rainforest. At one time, rainforest Indians used about 2,000 species of fruits and nuts for their food. Today we only use about 200. Spices that give good flavor to cakes and other foods are also rainforest products. Some of these are nutmeg, ginger, vanilla, and allspice. Coffee and cacao (chocolate) are major products of the South American and African rainforests.

Ingredients for medicines are another valuable group of products from the rainforests. The U.S. National Cancer Institute estimated that there are about 2,000 cancer fighting ingredients from rainforest plants. A plant that is now extinct in the wild, the Madagascar rosy periwinkle, has improved the survival rate for children with leukemia. At one time, only two out of every ten children survived this disease. Now the survival rate is eight out of every ten, thanks to the rosy periwinkle. Twenty-five percent of the ingredients in all cancer fighting drugs come from the rainforest.

The rainforest has another very valuable product. In fact, this one is too valuable to even measure. It is oxygen. The large Amazon rainforest is estimated to produce about one-fifth of the world's oxygen. That is why it is called the "lungs of our planet." Let's hope our beautiful, green rainforests keep living and growing for a long, long time.

Name: _____

Rainforest Plants

Questions

- _____ 1. This article is mainly about:
- A. rainforest plants
 - B. Brazil nuts
 - C. rainforest trees
 - D. the Amazon rainforest
- _____ 2. A plant that is helping to cure leukemia is:
- A. bromeliad
 - B. Brazil nut
 - C. pitcher plant
 - D. rosy periwinkle
- _____ 3. The Amazon rainforest produces one-fifth of the world's:
- A. nitrogen
 - B. hydrogen
 - C. potassium
 - D. oxygen
- _____ 4. The leaves of tall rainforest trees make up the:
- A. canopy
 - B. epiphyte
 - C. trunk
 - D. forest floor
- _____ 5. Today, rainforests cover less than _____ of the Earth's surface.
- A. 1%
 - B. 200%
 - C. 14%
 - D. 5%
- _____ 6. Epiphytes are:
- A. plants that need little water
 - B. pitcher plants
 - C. vines
 - D. plants that grow on other plants
- _____ 7. Since it is warm and rainy in tropical rainforests, we can tell that these rainforests are probably located near which part of the world?
- A. the Great Plains
 - B. Europe
 - C. the equator
 - D. the Arctic
- _____ 8. Today we use _____ types of fruits, nuts, and vegetables from the rainforest than rainforest Indians used in the past.
- A. about the same
 - B. more
 - C. fewer
 - D. can't tell from the article

Name: _____

A weird new bowling game has been invented at the local bowling alley. Each player gets one roll of the ball. Before the roll, the pin machine places ten pins at the end of the alley, with each pin having an integer written on it. The pins are selected randomly and set in the normal arrangement of ten pins (4 in the back row, 3 in the next row, 2 in the next, and 1 in the front). Before rolling, the players look through binoculars to see what numbers are written on the pins. The players must knock down at least one pin or they automatically lose. After the roll, the player who knocked down pins resulting in the greatest integer sum wins. Player one knocked down pins with the numbers -4, -9, 7, 4, 9, and -5. Player 2 knocked down pins with the numbers 1, -7, 3, -8, 0, and 2. Which player won the roll?

Justin is putting marbles in bags. The bags of marbles are prizes for the weird contests that will be held today. He has 1,236 marbles. If he puts more than five marbles in each bag, what is the smallest number of marbles he can put in each bag and have no marbles left over?

$8 \times 3 = \underline{\hspace{2cm}}$



Here is a pattern of letters:

F B B F B B F B B F ...

What letter will be the 37th term in the pattern?

$12 \times 12 = \underline{\hspace{2cm}}$

$15 \div 3 = \underline{\hspace{2cm}}$

What time is 14 hours after 3:00 a.m.?

$554 + 491 = \underline{\hspace{2cm}}$

word root **brev** can mean **short**

abbreviation, brevity

Name: _____

Ready to make equations? There is a missing equation in each box.
Circle the numbers once you find it!

A

85	26	68
-	19	67
	39	74
	2	92
		27

Find a
subtraction fact.

B

77	75	12
-	95	41
	10	55
	71	18
		46

Find a
subtraction fact.

C

20	40	86
-	45	87
	10	95
	66	12
		69

Find a
subtraction fact.

Equations:

Write the equation facts you found.

A	92	-	90	=	2
B		-	77	=	
C		-		=	20

Write as a decimal.
Eleven and five tenths

Write as a decimal.

$$\frac{1}{10}$$

Write as a decimal.

$$13\frac{5}{100}$$

96 divided by 12 equals

$$5\frac{5}{6} + 3\frac{2}{6}$$

What is the area of a
rectangle with sides 2 cm
and 10 cm?

Name: _____

$$\begin{array}{r} 1,832 \\ - 19 \\ \hline \end{array}$$

$$\begin{array}{r} 3,782,457 \\ - 1,006 \\ \hline \end{array}$$

$688 + 22 =$

Write the reciprocal.

$\frac{19}{20}$

Write the reciprocal.

$\frac{1}{5}$

Write the reciprocal.

15

Change $\frac{19}{25}$ to a decimal.

Find 4% of 100.

Change 9% to a decimal.

Change 40% to a decimal and a fraction expressed in its lowest terms.

Change $\frac{50}{100}$ to a percent.

306 is what percent of 360?

Find 75% of 260.

Find 30% of 138.

Change 0.96 to a percent.