

# REMEMBER WHEN POEM

## Last Questions

I remember when you used to smile  
at me. You had the best smile.  
It was a warm sunny day.  
But why, why did you stop?

I remember when you went away.  
My mother said you went to  
a nursing home for the elderly.  
But granny, why did you go?

I remember when I came to visit you.  
You had questions in your eyes,  
didn't know me anymore.  
Don't you remember your grandson?

I remember when you left.  
You looked so sad lying there.  
You were still and wouldn't move.  
What ever happened to you?

I remember when I realized  
you were gone. I was always glad  
I said goodbye.  
But granny, did you want to go?

- Eighth Grader

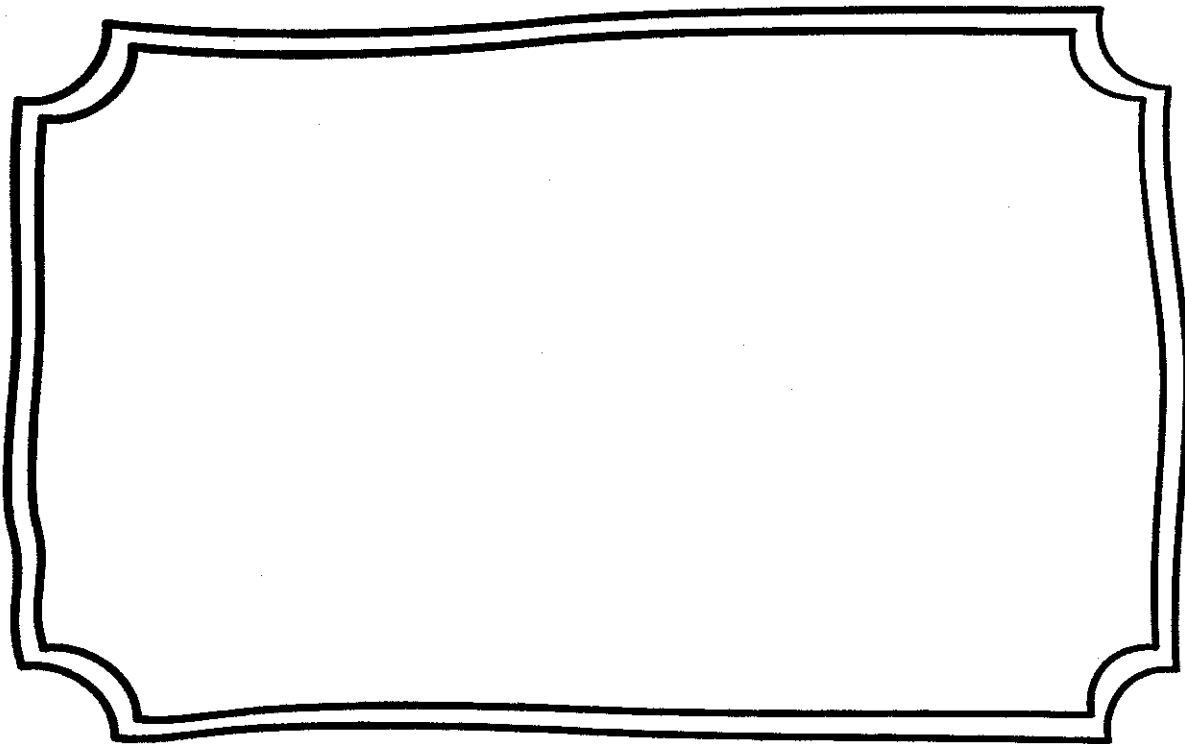
# REMEMBER WHEN POEM

## REMEMBER WHEN POEM

- Each stanza has four lines.
- The first line of each stanza must begin, "I remember when"
- The last line of each stanza will be a question.
- Vary the question starters (why, when, how...) at the end of each stanza.
- Incorporate figurative language.
- Write at least three stanzas.

### 1. BRAINSTORM

- Think about significant events, people, places, or animals in your life.
- What do you remember about the place, person, or event?
- Create a list of topic ideas in the box.



### 2. SELECT A TOPIC

- Review your brainstorm. Then, choose a topic for your Remember When poem.

TOPIC: \_\_\_\_\_

# REMEMBER WHEN POEM



## 3. WRITE A DRAFT OF YOUR POEM

- Write a first draft of your Remember When poem.
- Remember that each stanza starts "I remember when..." and ends with a question. (Try to ask a different type of question each time.)
- Add details, figurative language, sensory details, and descriptions to make your poem more interesting and unique.

## 4. IMPROVE YOUR DRAFT

- Review your poem.
- Consider how you can improve your writing. You might add descriptions, change common words to more powerful words, rearrange the order of your stanzas, and/or add figurative language.

When you are happy with your poem,  
rewrite it on a separate piece of paper for a grade.

# PERSONIFICATION POEM

## At the Window

By D.H. Lawrence

The pine-trees bend to listen to the autumn wind as it mutters  
Something which sets the black poplars ashake with hysterical laughter;  
While slowly the house of day is closing its eastern shutters.

Further down the valley the clustered tombstones recede,  
Winding about their dimness the mist's grey cerements, after  
The street lamps in the darkness have suddenly started to bleed.

The leaves fly over the window and utter a word as they pass  
To the face that leans from the darkness, intent, with two dark-filled eyes  
That watch for ever earnestly from behind the window glass.

# PERSONIFICATION POEM

## PERSONIFICATION POEM

- Includes examples of personification where the poet describes an abstraction, thing, or object as if it were a person.
- 9 or more lines in the poem
- 2 or more stanzas

### 1. SELECT AN OBJECT & AN ACTION

- Use the two lists to write a poem about nature.
- To get started, choose a word from LIST A.
- Then, choose a word from LIST B.

#### LIST A

- SUN
- MOON
- STARS
- SKY
- WIND
- SEA
- STONE
- NIGHT
- MOUNTAIN
- DAWN
- MORNING

#### LIST B

- TELLS
- SHOWS
- REMINDS
- TEACHES
- LISTENS
- REMEMBERS
- BRINGS
- LOOKS
- DANCES
- DREAMS
- GUIDES
- TAKES
- HIDES

### 2. PERSONIFY THE OBJECT OR MOMENT

- Expand the words you selected to create a line of poetry.

*EXAMPLE: Stone and Listens*

*EXAMPLE POETRY: The stone listens carefully to nature's tales.*

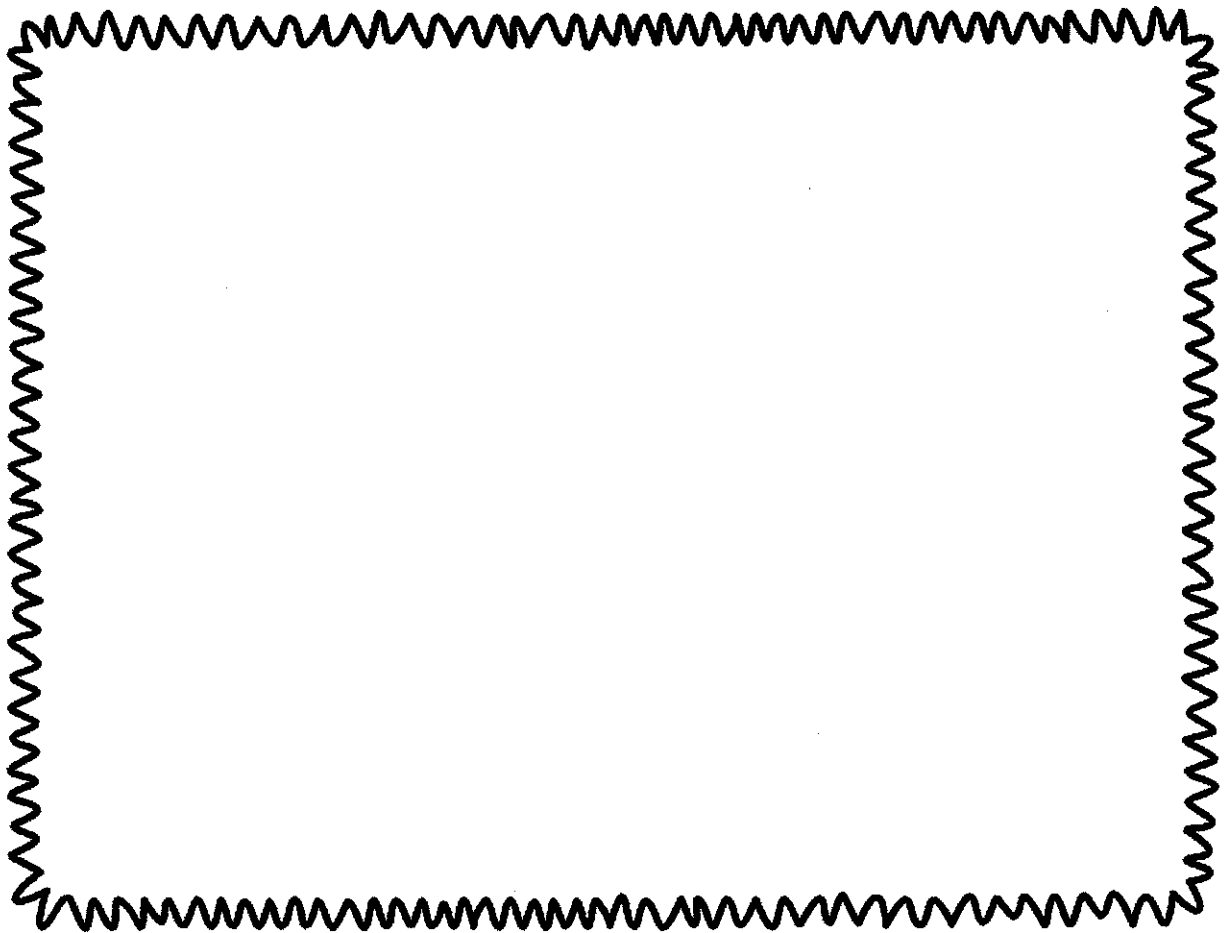
WORDS: \_\_\_\_\_ and \_\_\_\_\_

POETRY:

# PERSONIFICATION POEM

## 3. WRITE A 1<sup>ST</sup> DRAFT OF YOUR POEM

- Let the line of poetry you wrote in STEP 2 inspire a poem.
- Write a draft of the poem in the box.
- Remember to include multiple stanzas.
- Title your poem.



## 4. IMPROVE YOUR POEM

- Review your poem. Add images, colors, and descriptions.
- Eliminate words or phrases to make your message meaningful.
- Add other types of figurative language.
- Then, write a final copy of your poem on a separate piece of paper for a grade.

# 5 SENSES POEM

## ANGER

terrifying body of evil on eight hairy legs  
smoldering knots  
a screaming, blinding orange  
paper made of rough, crushed pebbles  
slimy lettuce leaves on moldy milk cartons  
long nights working for nothing at all  
bitter sour taste like a twisted tongue  
high-pitched sounds of glass breaking

# 5 SENSES POEM

## 5 SENSES POEM

- In this poem, you will describe eight items. As you describe the items, you'll tap into the 5 senses.
- You can write your description in a word or phrase.
- Do not name the thing you are describing.
- When your readers read your completed poem, you want them to feel just as you feel about what you describe.

### 1. WRITE

- Write a phrase, list of words, or sentence for each line.
- Your goal is to write powerful, interesting, and strong descriptions.
- Include sensory details, figurative language, and vivid words.
- Try not to use the actual thing that you are describing in your response.



**Line 1:** Think of the ugliest insect in the world. Vividly describe what the insect LOOKS like. Do not use the insect's name.

---



**Line 2:** Describe how you feel inside when you are mad.

---



**Line 3:** Describe the color you intensely dislike. You may use the name of the color, but be sure to use descriptors that show why you feel as you do.

---



**Line 4:** Describe the TEXTURE of something you avoid touching. Describe what it feels like.

---



# 5 SENSES POEM



**Line 5:** Describe a garbage dump. Describe how it **SMELLS**.

---



**Line 6:** Describe an activity that really gets on your nerves. Describe it so your reader will understand why you dislike it.

---



**Line 7:** Describe the **TASTE** of a food you try to avoid eating. Compare the food to something else using a simile.

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**Line 8:** Describe some scene of violence. Choose a phrase or two that notes **SOUNDS** from the scene.

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## 2. COMBINE

Combine all of the lines from your descriptions above to create an 8-line poem.

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# 5 SENSES POEM



## 3. REVISE & IMPROVE YOUR POEM

- Be sure that you did not name the things you described.
- Title your poem.
- Re-word your poem until you are satisfied that your reader will have a strong reaction to your poem.
- Change words, add others, delete some.
- Re-write your poem for a grade.

# RHYME POEM

## APRIL

Ella Higginson

Ah, who is this with twinkling feet,  
With glad, young eyes and laughter sweet,  
Who tosses back her strong, wild hair,  
And saucy kisses flings to Care,  
The while she laughs at her? Beware—  
You who this winsome maiden meet!

She dances on a daisied throne,  
About her waist a slender zone  
Of dandelion's gold; her eyes  
Are softer than the summer skies,  
And blue as violets; and lies  
A tearful laughter in her tone.

She reaches dimpled arms and bare;  
Her breath is sweet as wild-rose air;  
She sighs, she smiles, she glances down,  
Her brows meet in a sudden frown;  
She laughs; then tears the violets down—  
If you should meet her—ah, beware!

# RHYME POEM

## RHYME

- Rhyming words are words with the same end sounds.
- When a poem has rhyming words at the end of its lines, these are called "end rhymes."
- A rhyme scheme is a pattern of end rhymes in a poem.
  - Each new sound at the end of a line is given a letter, starting with "A," then "B," and so on.
  - If an end sound repeats the end sound of an earlier line, it gets the same letter as the earlier line.

## 1. IDENTIFY THE RHYME SCHEME:

### Summer Break

The school bell rang out loud. \_\_\_\_\_  
We ran to the door, quite a crowd. \_\_\_\_\_  
Our summer days are ahead. \_\_\_\_\_  
Tomorrow we'll all stay in bed. \_\_\_\_\_  
Rhyme scheme: \_\_\_\_\_

### Driving Test

Do you think that I'll pass my driving test? \_\_\_\_\_  
I've only hit a mailbox or two. \_\_\_\_\_  
Maybe I'm not the very best. \_\_\_\_\_  
When it comes to driving, I haven't a clue. \_\_\_\_\_  
Rhyme scheme: \_\_\_\_\_

### Chores

She said I need to do my chore. \_\_\_\_\_  
It's putting all the dishes in a row. \_\_\_\_\_  
I'd like to skip it, but I know \_\_\_\_\_  
If I don't get started, she'll give me more. \_\_\_\_\_  
Rhyme scheme: \_\_\_\_\_

# RHYME POEM

## 2. WRITE A RHYMING POEM

- Write a poem with at least 10 lines.
- You may want to organize your poem in stanzas.
- Once you have determined what you'd like to write about, you'll need to decide on the rhyme scheme that you will be using in your poem.
- Write a first draft of your poem.

TOPIC IDEAS:

RHYME SCHEME:



RHYMING POEM:

## 3. REVISE & IMPROVE YOUR POEM

- Improve your poem by refining your word choice and improving the images in your poem.
- Try to be creative with your rhyming words; nothing too obvious.
- Review your draft to ensure that you followed the rhyme scheme.

When you are happy with your poem,  
rewrite it on a separate piece of paper for a grade.

# Lesson 8 Problem-Solving Practice

## Roots

<p><b>1. PLANNING</b> Rosy wants a large picture window put in the living room of her new house. The window is to be square with an area of 49 square feet. How long should each side of the window be?</p>	<p><b>2. GEOMETRY</b> If the area of a square is 81 square meters, how many meters long is each side?</p>
<p><b>3. ART</b> A miniature portrait of George Washington is square and has an area of 169 square centimeters. How long is each side of the portrait?</p>	<p><b>4. BAKING</b> Cody is baking a square cake for his friend's wedding. When served to the guests, the cake will be cut into square pieces 1 inch on a side. The cake should be large enough so that each of the 121 guests gets one piece. How long should he make each side of the cake?</p>
<p><b>5. ART</b> Cara has 196 marbles that she is using to make a square formation. How many marbles should be in each row?</p>	<p><b>6. GARDENING</b> Tate is planning to put a square garden with an area of 289 square feet in his back yard. What will be the length of each side of the garden?</p>
<p><b>7. HOME IMPROVEMENT</b> Basil has 324 square paving stones that he plans to use to construct a square patio. How many paving stones will make up the width of the patio?</p>	<p><b>8. GEOMETRY</b> If the volume of a cube is 12,167 cubic inches, what is the length of a side of the square?</p>

# Lesson 1 Homework Practice

## Constant Rate of Change

Determine whether the relationship between the two quantities described in each table is linear. If so, find the constant rate of change. If not, explain your reasoning.

### 1. Fabric Needed for Costumes

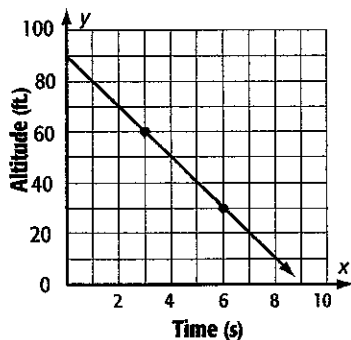
Number of Costumes	2	4	6	8
Fabric (yd)	7	14	21	28

### 2. Distance Traveled on Bike Trip

Day	1	2	3	4
Distance(mi)	21.8	43.6	68.8	90.6

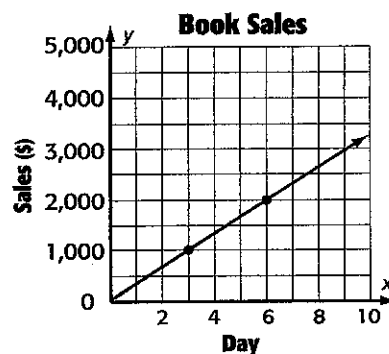
For Exercises 3 and 4, refer to the graphs below.

### 3. Hawk Diving Toward Prey



- Find the constant rate of change and interpret its meaning.
- Determine whether a proportional linear relationship exists between the two quantities shown in the graph. Explain your reasoning.

### 4.

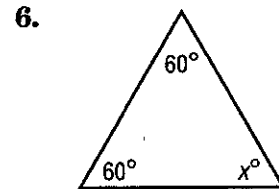
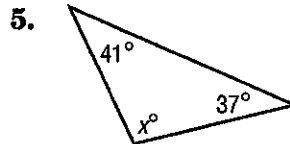
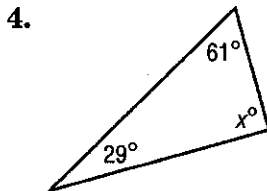
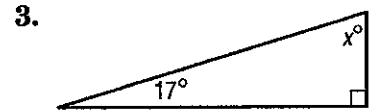
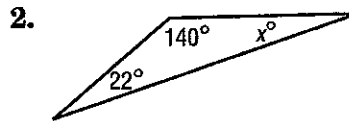
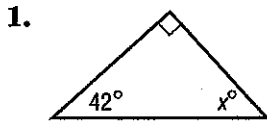


- Find the constant rate of change and interpret its meaning.
- Determine whether a proportional linear relationship exists between the two quantities shown in the graph. Explain your reasoning.

# Lesson 3 Homework Practice

## Angles of Triangles

Find the value of  $x$  in each triangle.



Find the missing measure in each triangle with the given angle measures.

7.  $45^\circ, 35^\circ, x^\circ$

8.  $100^\circ, x^\circ, 40^\circ$

9.  $x^\circ, 90^\circ, 16^\circ$

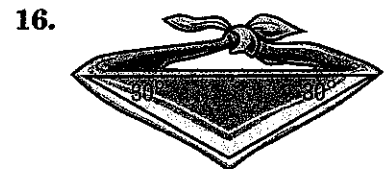
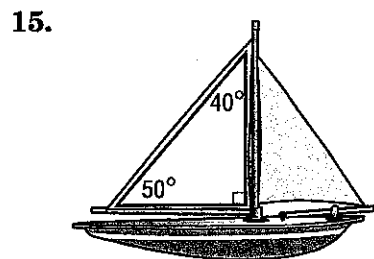
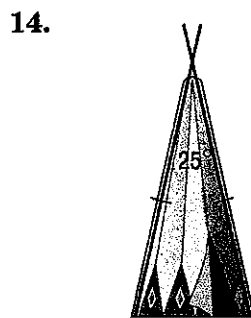
10. Find the third angle of a right triangle if one of the angles measures  $24^\circ$ .

11. What is the third angle of a right triangle if one of the angles measures  $51^\circ$ ?

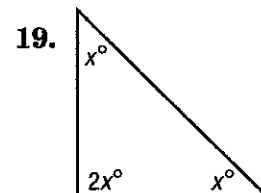
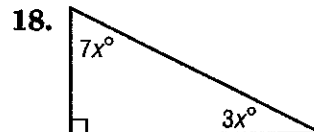
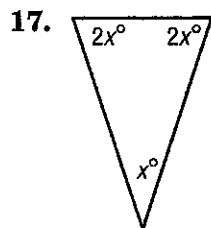
12. ALGEBRA Find  $m\angle A$  in  $ABC$  if  $m\angle B = 38^\circ$  and  $m\angle C = 38^\circ$ .

13. ALGEBRA In  $XYZ$ ,  $m\angle Z = 113^\circ$  and  $m\angle X = 28^\circ$ . What is  $m\angle Y$ ?

Classify the marked triangle in each object by its angles and by its sides.



ALGEBRA Find the value of  $x$  in each triangle.





# Lesson 8 Homework Practice

## Roots

Find each root.

1.  $\sqrt{36}$

2.  $-\sqrt{144}$

3.  $\sqrt[3]{\frac{27}{64}}$

4.  $\sqrt[3]{2,744}$

5.  $\pm\sqrt{2.25}$

6.  $\pm\sqrt{\frac{121}{289}}$

7.  $\sqrt{\frac{-81}{100}}$

8.  $\pm\sqrt{0.0025}$

9.  $-\sqrt{0.49}$

10.  $-\sqrt{3.24}$

11.  $-\sqrt{\frac{25}{441}}$

12.  $\pm\sqrt{361}$

**ALGEBRA** Solve each equation. Check your solution(s).

13.  $h^2 = 121$

14.  $324 = a^2$

15.  $x^2 = \frac{81}{169}$

16.  $0.0196 = m^2$

17.  $\sqrt{y} = 6$

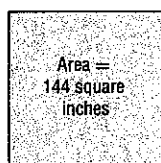
18.  $\sqrt{z} = 8.4$

**19. GARDENING** Moesha has 196 pepper plants that she wants to plant in square formation. How many pepper plants should she plant in each row?

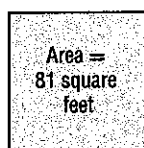
**20. RESTAURANTS** A new restaurant has ordered 64 tables for its outdoor patio. If the manager arranges the tables in a square formation, how many will be in each row?

**GEOMETRY** The formula for the perimeter of a square is  $P = 4s$ , where  $s$  is the length of a side. Find the perimeter of each square.

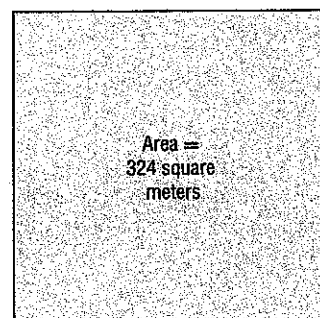
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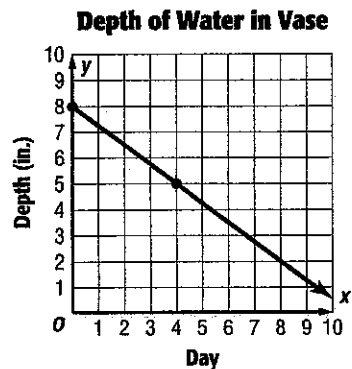
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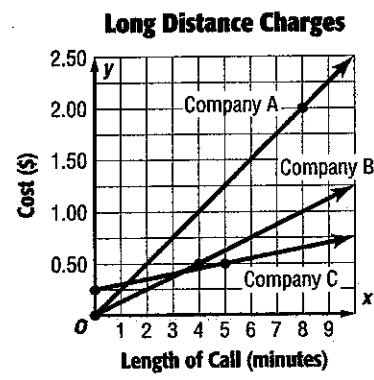
# Lesson 1 Problem-Solving Practice

## Constant Rate of Change

**FLOWERS** For Exercises 1 and 2, use the graph that shows the depth of the water in a vase of flowers over 8 days.



**LONG DISTANCE** For Exercises 3–6, use the graph that compares the costs of long distance phone calls with three different companies.

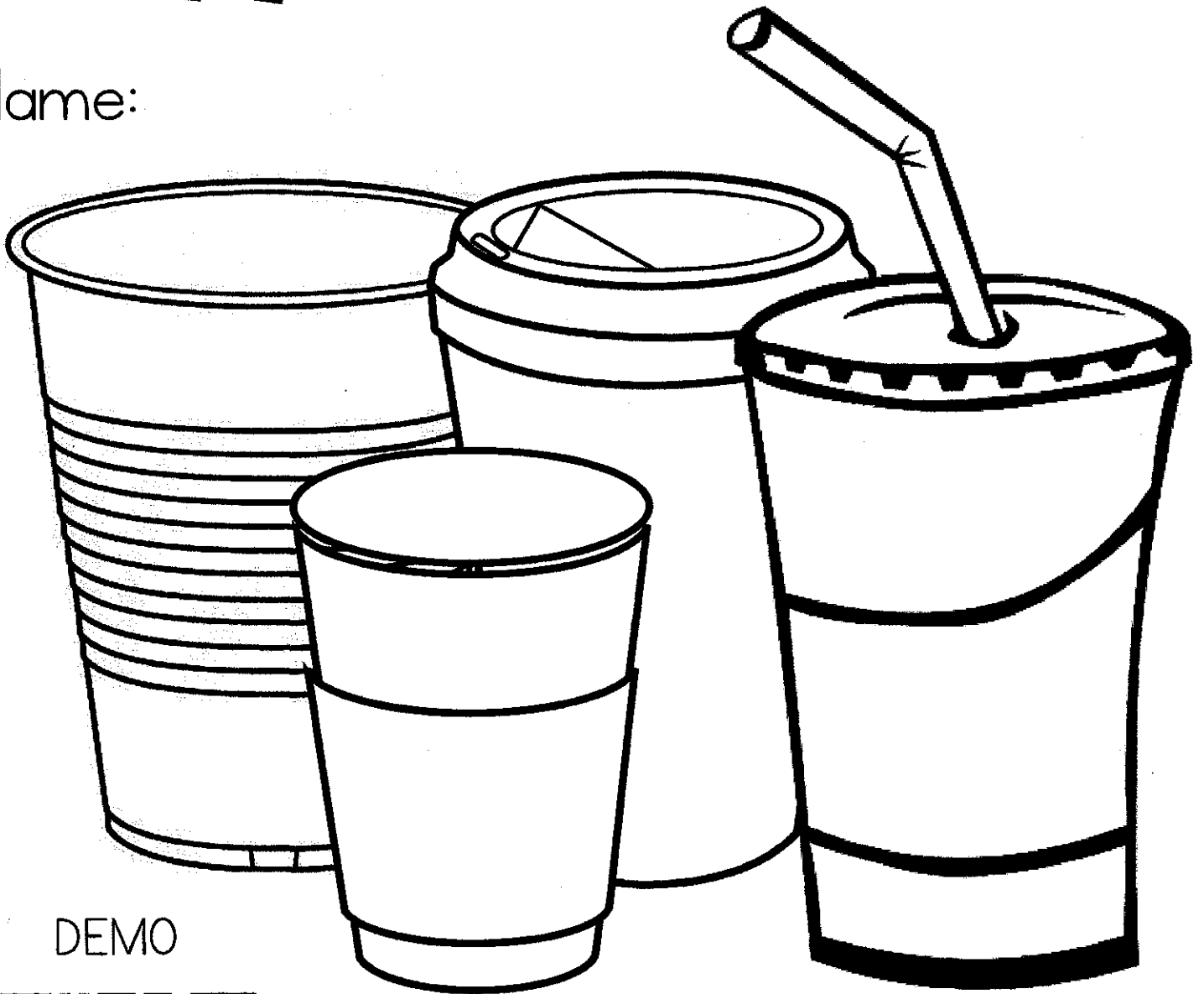


1. Find the rate of change for the line.	2. Interpret the difference between depth in inches and the day as a rate of change.
3. Interpret the difference between the cost in dollars and the length in minutes for Company A as a rate of change.	4. Interpret the difference between the cost in dollars and the length in minutes for Company B as a rate of change.
5. Interpret the difference between the cost in dollars and the length in minutes for Company C as a rate of change.	6. Which company charges the least for each additional minute? Explain your reasoning.

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# Blow Cup Challenge

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



DEMO



How does the amount of water, type of cup, and length between cups affect the success rate?

# THE VOCABULARY

**Variable:** The elements in an experiment that *vary* or can change. There are 3 types of variables – controlled, independent, and dependent.

**Controlled Variable (Controls):** Variables that are not changed during the experiment. The scientist designs the experiment so these elements are the same in all trials.

**Independent Variable:** A variable that is purposely changed or manipulated in the investigation. This is the variable that is being tested.

**Dependent Variable:** A variable that responds to or changes as a result of the changes in the independent variable. This is the variable that is being observed.

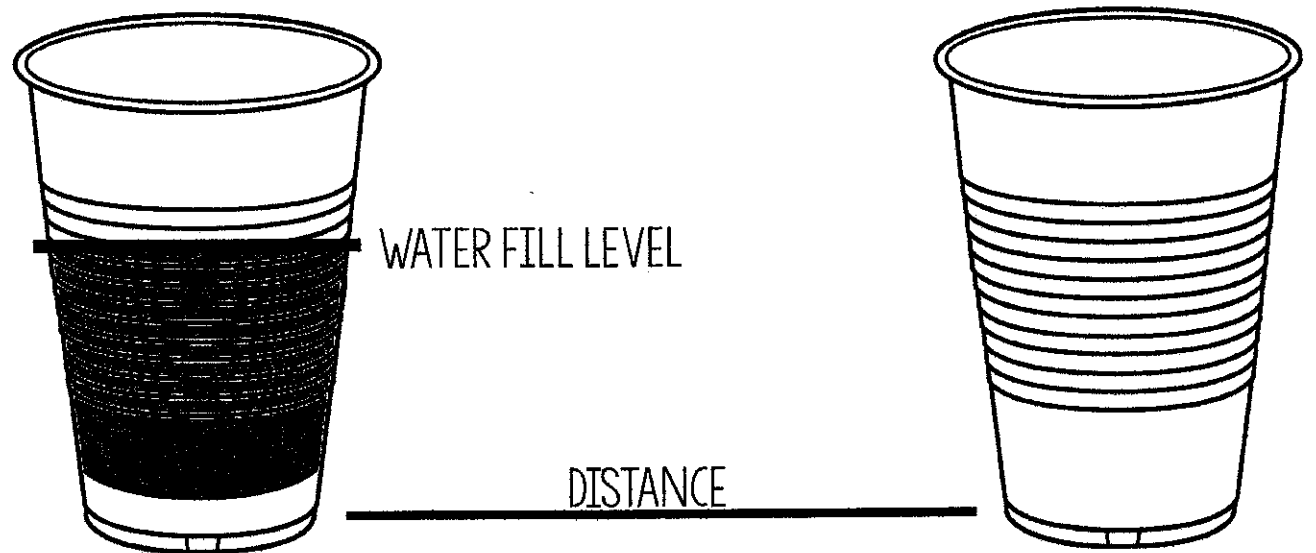
**Trial:** A particular performance of an experiment and the observed outcome.

# THE SET UP

## HOW DOES THE TYPE OF CUP AFFECT THE SUCCESS RATE?

For this test, you will **use 4 different types of cups** . The **water level , technique, and distance** **between the cups will stay the same** in each trial. The only thing that you will change is which cups you are using. You will do a set amount of trials with each group of 3 cups and will measure the success rate of each. Do not mix cups together in a trial - use the same type for each trial before switching to another type of cup. Use this diagram and the techniques page to determine the type of variables in this experiment.

TYPE OF CUPS USED



CONTROLLED VARIABLES	DEPENDENT VARIABLES	INDEPENDENT VARIABLES

# THE CUPS

For this challenge, you will need 4 different cups to test. They may be different brands, shapes, sizes, materials, and colors. Describe each cup. Be sure to indicate the unit you used to measure the height (inches or centimeters) - you will need to use a ruler. Illustrate your bottles. Be sure to show and label any specific features like curves, dents, ridges, etc.

BRAND

A

HEIGHT

MATERIAL

ILLUSTRATION

BRAND

B

HEIGHT

MATERIAL

ILLUSTRATION

BRAND

C

HEIGHT

MATERIAL

ILLUSTRATION

BRAND

D

HEIGHT

MATERIAL

ILLUSTRATION

PREDICTION:

Which cup type do you think will result in the highest success rate? Lowest success rate? Why?

# Part A.4 THE TECHNIQUE

First practice blowing the cups. Once you have developed a technique that you are comfortable with, fill out the checklist. You will need to use this same technique each time you take a turn when collecting data so write it all down.

## WATER FILL

How much water will the first cup have in it? You can use any unit, just be sure to write what you used.

## BODY POSITION

- ☐ STANDING
- ☐ SITTING
- ☐ SQUATTING
- ☐ ON KNEES
- ☐ OTHER: \_\_\_\_\_

## CUP SURFACE

- ☐ TABLE TOP
- ☐ DESK
- ☐ FLOOR
- ☐ CARPET
- ☐ OTHER: \_\_\_\_\_

## SPIN CUP?

- ☐ YES
- ☐ NO

## STRENGTH OF AIR

- ☐ LIGHT
- ☐ MEDIUM
- ☐ HARD

## BODY DISTANCE

- ☐ 1 FOOT
- ☐ 2 INCHES
- ☐ 6 INCHES
- ☐ OTHER: \_\_\_\_\_

## CUP DISTANCE

What will the distance between the cups be (in inches or centimeters)? Measure from the bottom and use the same distance for each trial.

*Anything  
ELSE?*



Part  
A.5

# THE CHALLENGE

Set up your three cups. You will do the same amount of trials for each cup type. Record if you were successful or not for each by putting a tally mark onto the chart.

Number of Trials for Each Cup Type:  
*Circle one or choose your own (realistic) number.*

3

5

8

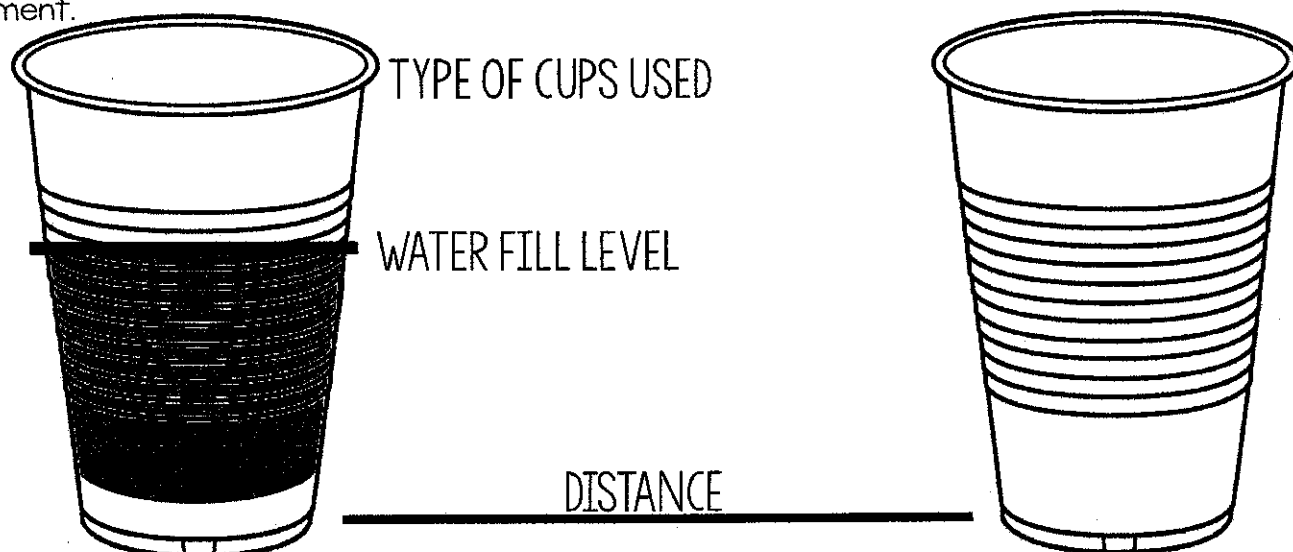
	Successful?	
CUP	YES	NO
A		
B		
C		
D		

# THE SET UP

HOW DOES THE WATER LEVEL IN THE STARTING CUP AFFECT THE SUCCESS RATE?

For this test, you will **test at least 3 different water levels**. The **cup type, technique, and distance between the cups will stay the same** in each trial. The only thing that you will change is how much water to add to the starting cup. You will do a set amount of trials with each water level and will measure the success rate of each. Water level can be measured in inches or centimeters from the bottom of the cup or you can measure the volume of the water before pouring it into the cup with a graduated cylinder or other liquid measuring device.

Use this diagram and the techniques page to determine the type of variables in this experiment.



CONTROLLED VARIABLES

DEPENDENT VARIABLES

INDEPENDENT VARIABLES

# Part B.2 THE TECHNIQUE

First practice blowing the cups. Once you have developed a technique that you are comfortable with, fill out the checklist. You will need to use this same technique each time you take a turn when collecting data so write it all down.

## CUP DISTANCE

What will the distance between the cups be (in inches or centimeters)? Measure from the bottom and use the same distance for each trial.

## BODY POSITION

- ☐ STANDING
- ☐ SITTING
- ☐ SQUATTING
- ☐ ON KNEES
- ☐ OTHER: \_\_\_\_\_

## CUP SURFACE

- ☐ TABLE TOP
- ☐ DESK
- ☐ FLOOR
- ☐ CARPET
- ☐ OTHER: \_\_\_\_\_

## SPIN CUP?

- ☐ YES
- ☐ NO

## STRENGTH OF AIR

- ☐ LIGHT
- ☐ MEDIUM
- ☐ HARD

## BODY DISTANCE

- ☐ 1 FOOT
- ☐ 2 INCHES
- ☐ 6 INCHES
- ☐ OTHER: \_\_\_\_\_

## CUP TYPE

Which cup are you using for this experiment each time?

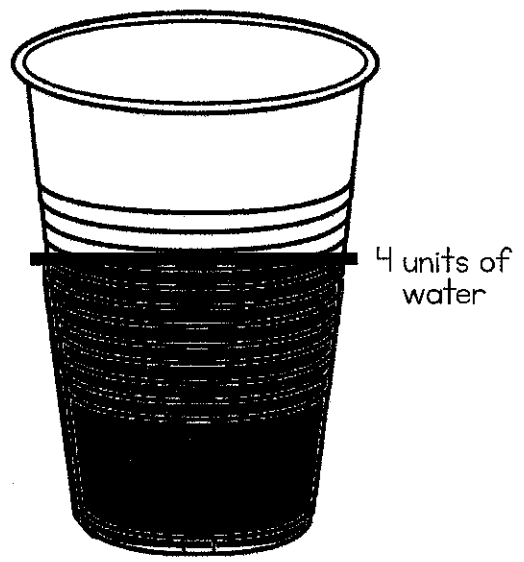
*Anything  
ELSE?*

Part  
B.3

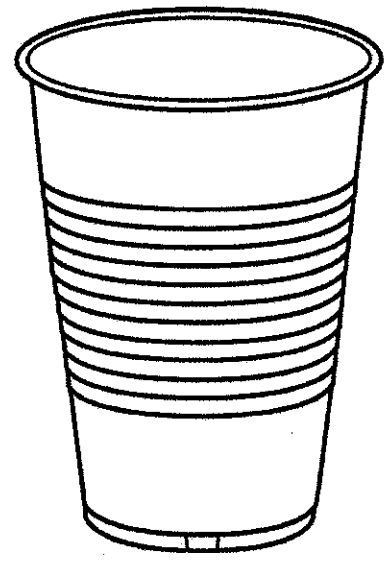
THE SET-UP

Show the fill levels you will use the starting cup. You will test 3 different fill levels. Shade and label each cup to show how much water you will add.

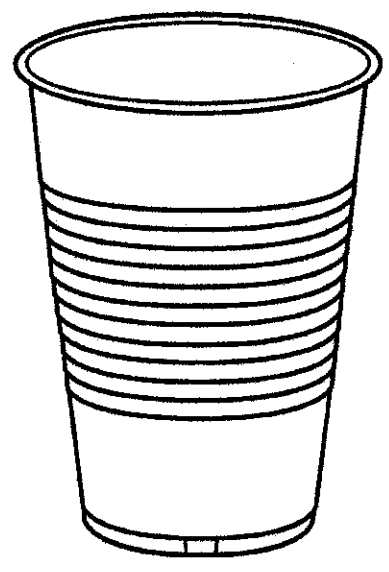
EXAMPLE



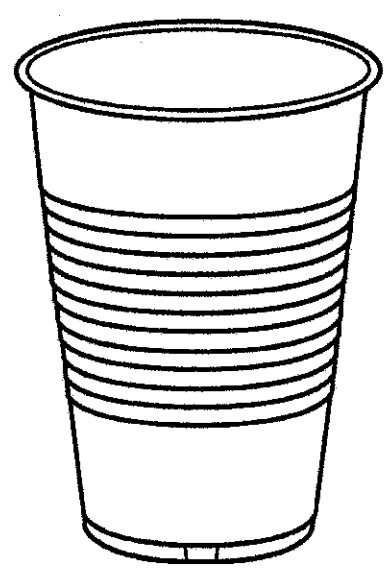
WATER LEVEL 1



WATER LEVEL 2



WATER LEVEL 3



PREDICTION

Which water level do you think will result in the highest success rate? Lowest success rate? Why?

# Part B.4 THE CHALLENGE

Set up your three cups. You will do the same amount of trials at each distance. Record if you were successful or not for each by putting a tally mark onto the chart.

**Number of Trials at Each Fill Level?**

*Circle one or choose your own (realistic) number.*

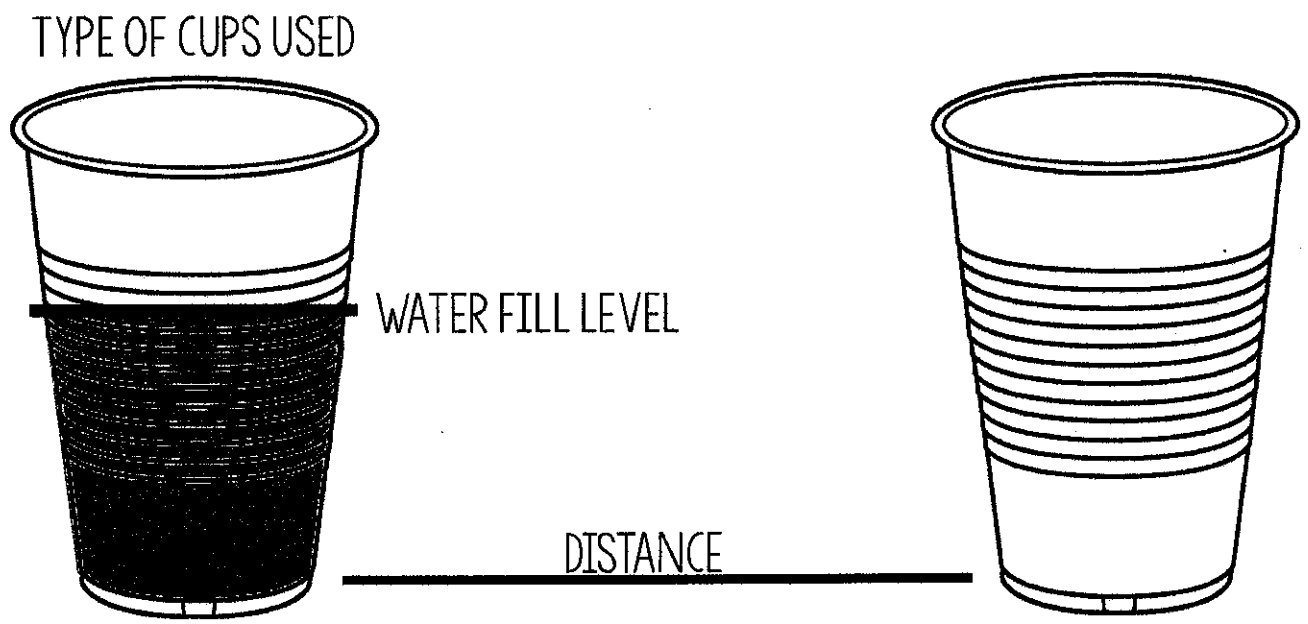
3 5 8

WATER LEVEL Include the unit you used	Successful?	
	YES	NO

# THE SET UP

HOW DOES THE DISTANCE BETWEEN THE TWO CUPS AFFECT THE SUCCESS RATE?

For this test, you will use the same type of cup and the same water level each time. You will also use the same technique. The only thing that you will change is the distance between the cups. You will do a set amount of trials at each distance and will measure the success rate of each. Use this diagram and the techniques page to determine the type of variables in this experiment.



CONTROLLED VARIABLES	DEPENDENT VARIABLES	INDEPENDENT VARIABLES

# Part C.2 THE TECHNIQUE

First practice blowing the cups. Once you have developed a technique that you are comfortable with, fill out the checklist. You will need to use this same technique each time you take a turn when collecting data so write it all down.

## WATER FILL

How much water will the first cup have in it? You can use any unit, just be sure to write what you used.

## BODY POSITION

- ☐ STANDING
- ☐ SITTING
- ☐ SQUATTING
- ☐ ON KNEES
- ☐ OTHER: \_\_\_\_\_

## CUP SURFACE

- ☐ TABLE TOP
- ☐ DESK
- ☐ FLOOR
- ☐ CARPET
- ☐ OTHER: \_\_\_\_\_

## SPIN CUP?

- ☐ YES
- ☐ NO

## STRENGTH OF AIR

- ☐ LIGHT
- ☐ MEDIUM
- ☐ HARD

## BODY DISTANCE

- ☐ 1 FOOT
- ☐ 2 INCHES
- ☐ 6 INCHES
- ☐ OTHER: \_\_\_\_\_

## CUP TYPE

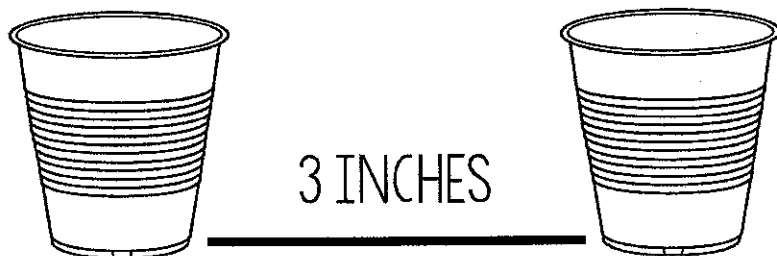
Which cup are you using for this experiment each time?

*Anything  
ELSE?*

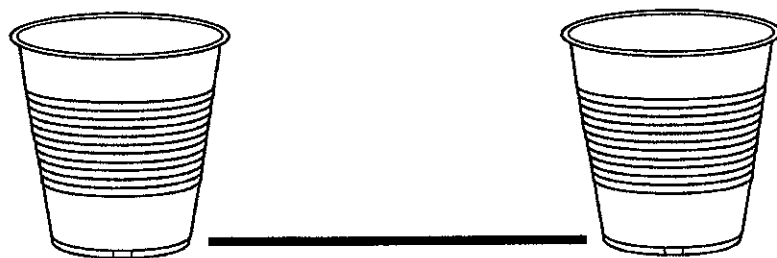
# THE SET-UP

Choose 3 distances to test. Use either inches or centimeters. Label your 3 set-ups below. Use a ruler to measure the distance between the cups. Measure from the bottom of one cup to the other cup each time.

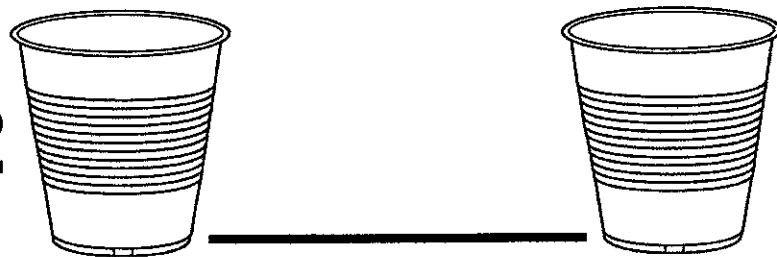
## EXAMPLE



## Set up #1



## Set up #2



## Set up #3



## PREDICTION

Which distance do you think will result in the highest success rate? Lowest success rate? Why?



# Part C.4 THE CHALLENGE

Set up your three cups. You will do the same amount of trials at each distance. Record if you were successful or not for each by putting a tally mark onto the chart. Double check the distance for each trial since the cups can shift.

**Number of Trials for Each Distance:**  
*Circle one or choose your own (realistic) number.*

3

5

8

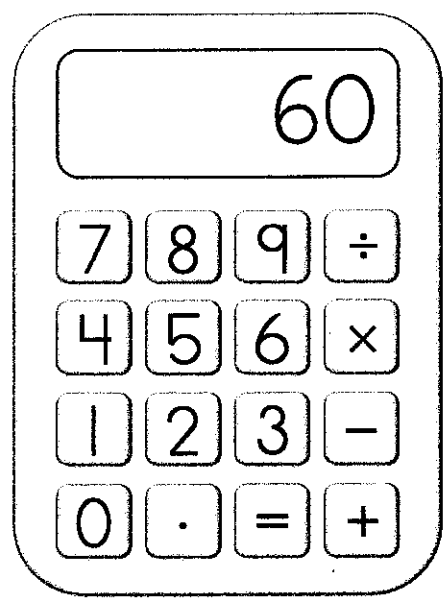
Successful?		
DISTANCE APART in inches or centimeters (circle one)	YES	NO

# THE DATA

Total up the number of successes. Write the total number. Next write the success rate as a fraction of total successful tries over total tries. For example, if you tried the challenge at a distance of 3 inches 5 times and 3 of those tries were successful, the success rate would be  $\frac{3}{5}$ .

TOTAL SUCCESSFUL CHALLENGES
_____
TOTAL NUMBER OF TIMES YOU TRIED

Use your calculator to figure out the success percentage by dividing the top number by the bottom number then multiplying by 100. In the above example  $\frac{3}{5}$  would become  $0.60 \times 100 = 60$ . Write the percent symbol after the 60 on the table.



That means that in our example, cups 3 inches apart have a 60% chance of landing successfully if completing the challenge with your technique.

DISTANCE APART	TOTAL SUCCESSFUL TRIES	SUCCESS RATE (Fraction of success/total tosses)	SUCCESS PERCENTAGE
3 inches	3	$\frac{3}{5}$	60%

# THE DATA *continued...*

CUP TYPE	TOTAL SUCCESSFUL TRIES	SUCCESS RATE (Fraction of success/total tosses)	SUCCESS PERCENTAGE

# THE DATA *continued...*




<b>WATER LEVEL</b> (indicate the units you used)	<b>TOTAL SUCCESSFUL TRIES</b>	<b>SUCCESS RATE</b> (Fraction of success/total tosses)	<b>SUCCESS PERCENTAGE</b>

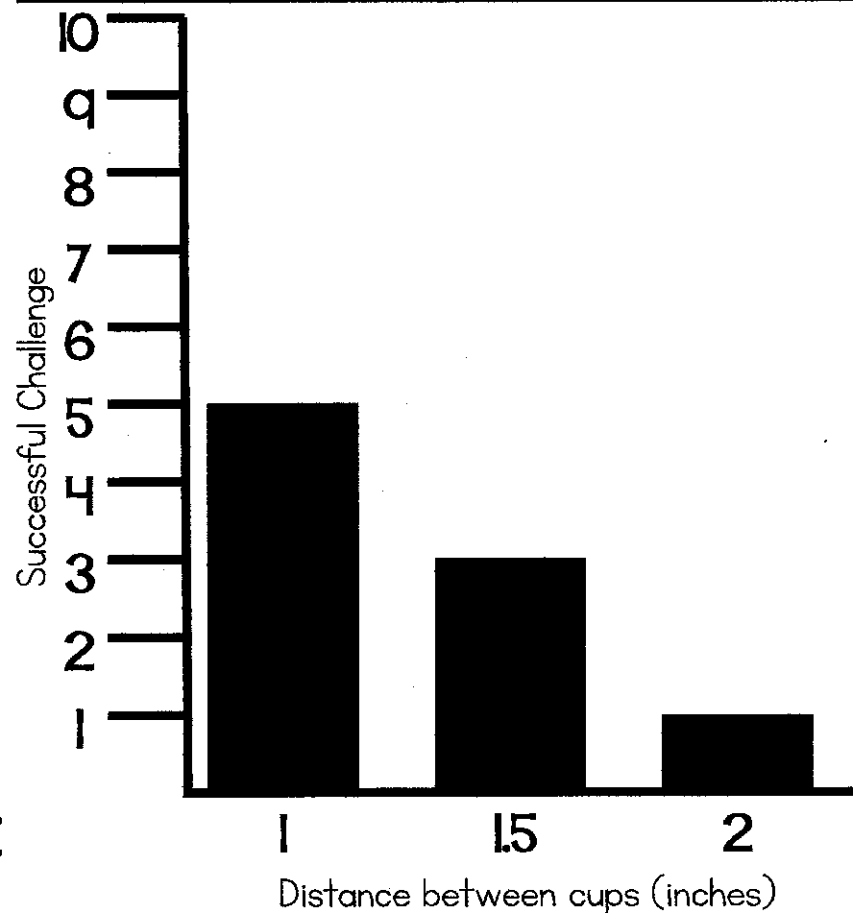
# THE DATA *continued...*

DISTANCE (inches or centimeters)	TOTAL SUCCESSFUL TRIES	SUCCESS RATE (Fraction of success/total tosses)	SUCCESS PERCENTAGE

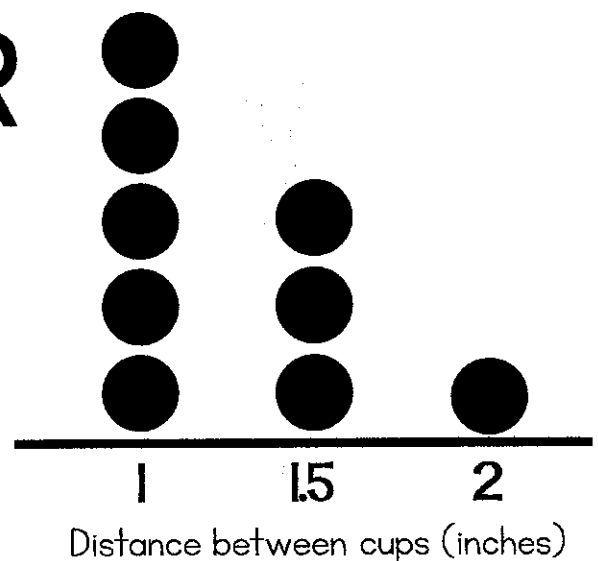
# Part E.1 THE FREQUENCY

## SAMPLE FREQUENCY CHART & PLOT/GRAPH

DISTANCE	TOTAL SUCCESSFUL TOSSES - TALLY MARKS	FREQUENCY
1 inch		5
1.5 inches		3
2 inches		1



OR



# Part E.2 THE FREQUENCY

Choose the set of data from ONE variable tested to fill in the frequency table below.

<b>VARIABLE TESTED</b> (Distance / Cup Type / Water Level) Circle One	<b>TOTAL SUCCESSFUL TOSSES - TALLY MARKS</b>	<b>FREQUENCY</b>

# THE GRAPH

Use the data from the frequency table to make a line plot or bar graph. You will need to label the Y-axis and X-axis. Write in your number of trials, label any units of the variables you are graphing, and title your graph.

Number of Successfully Landed Blow Cup Challenges Out of \_\_\_\_\_ Trials.

(Title)

Independent Variable: \_\_\_\_\_



# THE RESULTS

Which cup type, water level, and distance used had the highest success rate? Lowest?

Which variable in this experiment do you think had the greatest effect on the success rate?  
Why do you think that?

For each trial you listed the controlled or unchanging variables. Your technique was considered a controlled variable. Is that accurate? *Was your technique really controlled?* Why or what not?

What (or who!) do you think can influence data and results of this experiment. How can you design or change the challenges to get more accurate data?

# THE IDEAL SET-UP

Use what you have learned from your data and your classmates' data to design your ideal set-up. Your goal is to set up the challenge that will yield the highest success rate. Label the distance between the cups, the water level and any design details in the cups you would use like the material, height, shape, texture, etc. Be as creative with your set up as you want but it must be grounded in the real results you observed.

# THE RUBRIC

How did you do? Use the scale to rate your performance in the Blow Cup Challenge.

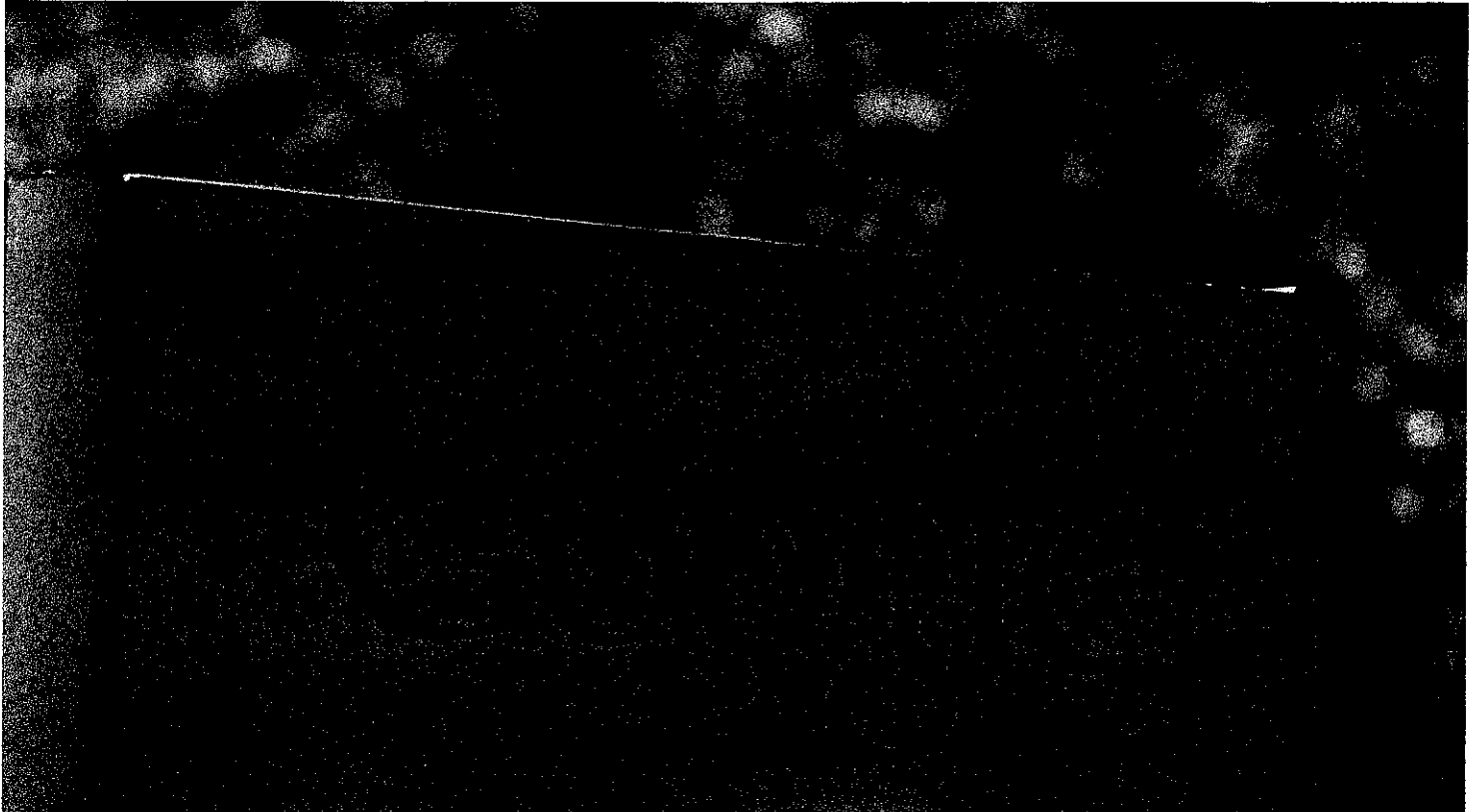
	NEEDS IMPROVEMENT	GOOD	EXCELLENT
I completed all parts of the project.	1	2	3
I followed the directions .	1	2	3
I determined how variables effected the success rate.	1	2	3
I determined which cup, water level, and distance gave the best success rates.	1	2	3
My calculations were accurate.	1	2	3
TOTAL			/15

# Google news stories will now be accompanied by a fact-checking tool

By Christian Science Monitor, adapted by Newsela staff on 04.13.17

Word Count 774

Level 1080L



A sign at Google headquarters in Mountain View, California, is shown. Google rolled out a new "Fact Check" tool to help combat the spread of fake news online. Photo from AP

Google added a new tool on Friday designed to fight the spread of fake news on the web. Fake news includes stories that contain intentional lies or unchecked rumors. The new "Fact Check" program automatically labels questionable stories in users' search results. It provides links to fact-checking sites like Snopes and Politifact with these stories. This way, the reader can determine the accuracy of the stories' claims.

Major websites such as Google, Facebook and Twitter have been facing pressure to help stop the spread of "fake news" across the Internet. This issue was highlighted during the U.S. presidential campaign when several "fake news" stories were spread about candidate Hillary Clinton.

Over the past few years, sites such as Google have had to walk a fine line with fake news. They have to police false claims. But they also must support basic principles of free speech online. Google is the most popular search engine in the world. It controls more than 77 percent of the global search

engine market share. Many believe that level of influence carries with it some responsibility to make sure its users are not misled.

### **Unrealistic To Expect Google To Educate People**

Andrea Forte is an assistant professor at Drexel University's College of Computing & Informatics in Philadelphia, Pennsylvania. "Building systems that help people get better at judging information is an important goal," says Forte. However, she also says that depending on big businesses such as Google to educate people about how to tell if a story is real, is not realistic.

Forte says that relying on companies to fix the problem is, at best, an "incomplete solution." Google and major websites like it make profits by selling advertisements. They want to attract readers who will see those ads. They often post stories they know their audience will enjoy reading, whether the information is true or not. Some people enjoy reading stories because they enforce ideas they want to believe. Because of this, even programs like Fact Check will never be an entirely reliable way to eliminate fake news. They won't necessarily provide users with fair, balanced information.

Still, it's a start, Forte says.

"Google was built to help people find useful information by surfacing the great content that publishers and sites create," reads a blog post from Google explaining the new feature. It goes on to say that access to high-quality information is what brings people to the web. However, it says that thousands of new articles are published online every minute of every day. The amount of content people view online can be overwhelming.

### **Fact-Checking Organizations Will Provide Assessments**

The new program was first tested in October. Google gave publishers in certain countries the ability to show a Fact Check tag in Google's News section. The feature highlighted articles from respected news sources that assessed the accuracy of statements by people in public life. Now, that feature has been expanded worldwide. In addition, fact-checking tags now appear in Google's main search results as well as in the News section.

"For the first time, when you conduct a search on Google that returns an authoritative result containing fact checks for one or more public claims, you will see that information clearly on the search results page," reads the Google blog. You will see information on the claim, who made the claim and the fact check of that particular claim.

Google will not provide the fact-checking service itself. A network of 115 fact-checking organizations will provide the accuracy assessment for questionable articles. As a result, Google searches based on the same claim could return different opinions on the story's accuracy or inaccuracy from different fact-checkers. But even with differing opinions on the truth of a story, Google hopes that the range of opinions from different sources will give users an idea of the "degree of consensus" on any suspicious claims. The degree of consensus measures how many people who are knowledgeable on the subject agree on something.

### **Fact Check Tool Is An Important Step**

Of course, some fake news readers will likely continue to reject the truth in favor of a fake news article. They will believe claims that seem to support prejudices they already have. Fact Check won't eliminate the problem of fake news completely. But Forte thinks that Google's new tool is an important step in fighting the growth of misinformation on the web.

"Asking companies like Google and Facebook to think about these problems and do what they can to address them is a start," says Forte. "But it doesn't go far enough. We need both technological and social solutions. Both good design and education."

## Quiz

1 Which two of the following sentences from the article include central ideas of the article?

1. *Major websites such as Google, Facebook and Twitter have been facing pressure to help stop the spread of "fake news" across the Internet.*
2. *Many believe that level of influence carries with it some responsibility to make sure its users are not misled.*
3. *"For the first time, when you conduct a search on Google that returns an authoritative result containing fact checks for one or more public claims, you will see that information clearly on the search results page," reads the Google blog.*
4. *A network of 115 fact-checking organizations will provide the accuracy assessment for questionable articles.*

- (A) 1 and 3
- (B) 2 and 4
- (C) 1 and 4
- (D) 2 and 3

2 Read the paragraphs from the section "Fact-Checking Organizations Will Provide Assessments."

*The new program was first tested in October. Google gave publishers in certain countries the ability to show a Fact Check tag in Google's News section. The feature highlighted articles from respected news sources that assessed the accuracy of statements by people in public life. Now, that feature has been expanded worldwide. In addition, fact-checking tags now appear in Google's main search results as well as in the News section.*

*"For the first time, when you conduct a search on Google that returns an authoritative result containing fact checks for one or more public claims, you will see that information clearly on the search results page," reads the Google blog. You will see information on the claim, who made the claim and the fact check of that particular claim.*

How is the central idea developed in these two paragraphs?

- (A) They explain how to search for fake news and describe what will change in the Google News section.
- (B) They highlight articles from news sources and show what Google expects users to do with the new tool.
- (C) They show how Google developed the program and explain what the tool offers to its readers.
- (D) They state why the Fact Check tag is necessary and show what the new page will look like.

3 Based on the article, which answer choice BEST characterizes the impact of fake news on the latest presidential campaign?

- (A) It promoted falsehoods that affected how people viewed Hillary Clinton.
- (B) It encouraged people to vote for Donald Trump rather than Hillary Clinton.
- (C) It limited the access people had to the most accurate news sources.
- (D) It made some readers look for fact-checking sites such as Politifact.

4 Which of the following MOST influenced Google to add the new "Fact Check" feature?

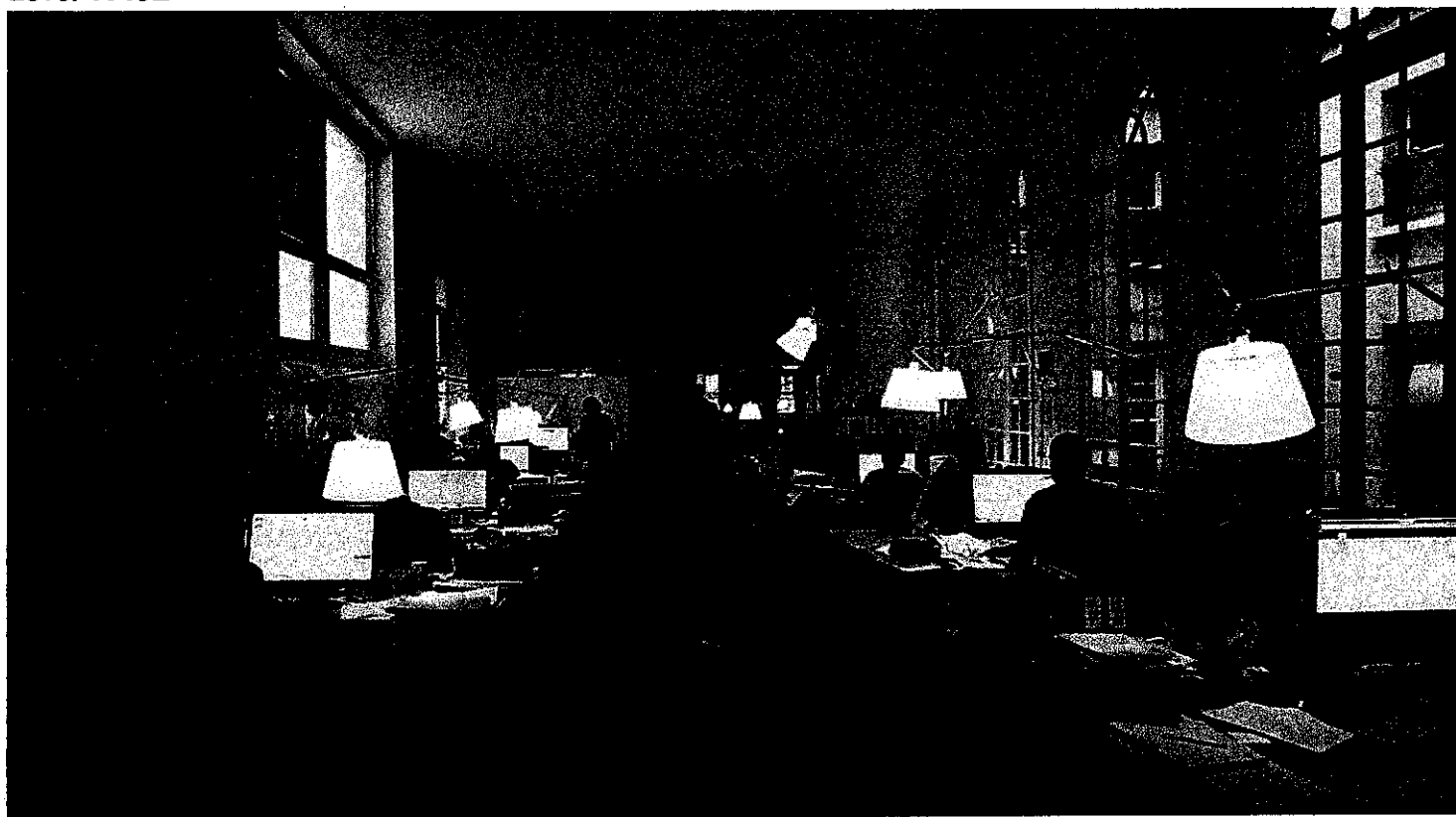
- (A) the criticism from businesses that pay to advertise on Google
- (B) the growing influence of fake news stories across the Internet
- (C) the fact-checking organizations that want to expand services
- (D) the criticism from political parties concerned about fake news

# Researchers delve into how news is spread, including the fake stuff

By Los Angeles Times, adapted by Newsela staff on 03.18.18

Word Count **832**

Level **1140L**



Inside Reporters without Borders in Paris, France, in January 2018. French President Emmanuel Macron's plan for a law against false information around election campaigns is drawing criticism from media advocates, tech experts and others. They say it's impossible to enforce and smacks of methods used by authoritarians, not democracies. Photo: Francois Mori/AP Photo

A new scientific analysis offers strong proof of something that social media acolytes, or followers, have known for years. Twitter is an excellent platform for spreading actual news.

Unfortunately, according to the analysis, it is even better at spreading fake news.

The study compared tweets about claims that were verifiably true with tweets about claims that were undeniably false. The false claims were 70 percent more likely to be retweeted in the Twitterverse. Additionally, false claims about politics spread farther than any other category of news included in the analysis.

A team of data scientists and social media experts from the Massachusetts Institute of Technology came to these dispiriting conclusions. They examined the spread of thousands of tweets shared by millions of people over a span of 12 years.



## **Farther And Faster Than A Speeding ... Tweet**

Soroush Vosoughi and Deb Roy of the MIT Media Lab and Sinan Aral of MIT's Sloan School of Management conducted the analysis and wrote about the findings, which appeared in the journal *Science* on March 8.

"Falsehood diffused significantly farther, faster, deeper, and more broadly than the truth in all categories of information." In other words, falsehoods do a lot better on Twitter.

The researchers considered "news" to be "any asserted claim made on Twitter." That claim could be expressed in words, a photo or a link to a full article on the Internet.

The researchers made a point of avoiding the use of the phrase "fake news." Instead, they categorized news as either "true" or "false." If a tweet is labeled "false," that does not imply that the person who wrote it is trying to pull a fast one and lie, it only means that the claim in the tweet is inaccurate.

### **Rumors Squared**

For the purposes of the study, any type of news claim that spreads on Twitter is labeled a "rumor."

The pattern by which a particular tweet spreads is a "rumor cascade." A single cascade is when the same tweet — a tweet from a single user — is retweeted 10 times in an unbroken chain. That cascade has a size of 10. If two people independently tweet the same piece of news and each of those tweets is retweeted five times in an unbroken chain, we have two rumor cascades, each of size five.

### **The Twitter Survey Says**

Vosoughi, Roy and Aral used this framework to map the spread of information on Twitter from its creation in 2006 through last year. Here is a sampling of what they found:

- Tweets containing false news were typically retweeted by "many more people" than tweets containing true news.
- False news reached 1,500 people on Twitter six times faster than true news.
- Rumor cascades based on true news "rarely" spread to more than 1,000 people. However, at least 1 percent of rumor cascades based on false news did this routinely.
- False news was also more likely to be "viral." Not only were the retweet chains longer, they were more likely to branch off into new chains.
- Rumor cascades about politics outnumbered those of all other topics. Cascades about urban legends came in second, followed by business, terrorism, science, entertainment and natural disasters.
- False news about politics spread to 20,000 people almost three times more quickly than any other kind of false news was able to reach just 10,000 people. That means false news went farther and faster than any other type of false news.
- Compared with people who spread true news, those who spread false news were newer to Twitter. They also had fewer followers, followed fewer people and were less active on the social

media platform.

### **The Wave Of Tweet Reactions**

The question is what makes false news so much more enticing than true news? The researchers believe the answer is that false news has more novelty, which makes it both more surprising and more valuable and, therefore, more likely to be retweeted.

They also examined the emotional content of replies to these tweets and found that false tweets prompted greater feelings of surprise and disgust. True tweets, on the other hand, generated replies expressing sadness and trust.

The three researchers made a separate map that excluded all of the fake Twitter accounts they could identify with a bot-detection algorithm. Bots are non-human social media accounts that are often blamed for spreading false news. Even when rumor cascades started by bots were removed, the patterns remained. False news spread farther and wider than true news.

### **A Light At The End Of The News Cycle Tunnel**

If all this has you feeling hopeless about the future, Vosoughi, Roy and Aral advise you to hang tight. The situation may seem bleak, but there is nothing to gain by ignoring it.

“Understanding how false news spreads is the first step toward containing it,” the researchers wrote. “We hope our work inspires more large-scale research into the causes and consequences of the spread of false news as well as its potential cures.”

## Quiz

1 Read the findings below from the section "The Twitter Survey Says."

1. *Tweets containing false news were typically retweeted by "many more people" than tweets containing true news.*
2. *False news reached 1,500 people on Twitter six times faster than true news.*
3. *Rumor cascades based on true news "rarely" spread to more than 1,000 people. However, at least 1 percent of rumor cascades based on false news did this routinely.*
4. *False news was also more likely to be "viral." Not only were the retweet chains longer, they were more likely to branch off into new chains.*

Which finding is LEAST supportive of the idea that false claims are more likely to be retweeted on Twitter than true claims?

- (A) 1
- (B) 2
- (C) 3
- (D) 4

2 Read the last paragraph of the article.

*Understanding how false news spreads is the first step toward containing it," the researchers wrote. "We hope our work inspires more large-scale research into the causes and consequences of the spread of false news as well as its potential cures."*

Which conclusion is BEST supported by the paragraph?

- (A) The researchers are most interested in determining the consequences of false news.
- (B) The researchers believe it takes a large number of steps for false news to spread.
- (C) The researchers have been inspired by the work already done by other researchers in determining the causes of false news.
- (D) The researchers believe that the work they have done can be the foundation for other research into the spread of false news.

3 Read the sentence below from the third paragraph of the article.

*The study compared tweets about claims that were verifiably true with tweets about claims that were undeniably false.*

Which word could replace "undeniably" WITHOUT altering the meaning of the sentence?

- (A) often
- (B) supposedly
- (C) proven
- (D) embarrassedly

*If a tweet is labeled "false," that does not imply that the person who wrote it is trying to pull a fast one and lie, it only means that the claim in the tweet is inaccurate.*

In the sentence, the phrase "pull a fast one" is used to suggest that the false tweet is \_\_\_\_.

- (A) intentionally false
- (B) written very quickly
- (C) meant to be confusing
- (D) difficult to understand

## **2. Government: Imitating the Chinese System**

Starting with Prince Shotoku, Japanese rulers adopted new ideas about government from China. China's form of government was both like and unlike Japan's. For example, the emperors in China and Japan had quite different powers. The emperor in China was the sole ruler, whereas in Japan, the emperor had only loose control over the semi-independent uji. Uji controlled their own land, and their leaders struggled among themselves for the right to select the emperor and influence his decisions.

While Japanese emperors depended on local leaders, the Chinese emperor ruled with the help of a bureaucracy of government officials. At least in theory, appointments to government jobs were based on merit. Any man who did well on an examination could become an official.

During the 7th and 8th centuries, Japanese rulers adopted a Chinese style of government. Japanese tradition credits Prince Shotoku with starting this development. Borrowing Confucian ideas, the prince created ranks for government officials. In 604, he issued a set of guidelines called the Seventeen Article Constitution, which stated that the emperor was the supreme ruler: "In a country there are not two lords; the people have not two masters. The sovereign is the master of the people of the whole country."

Later rulers went much further in bringing Chinese-style changes to Japan. In the late 7th century, Emperor Tenmu and his wife and successor Empress Jitō reformed and strengthened the central government. Control of the land was taken away from clan leaders and given to the emperor. The emperor then redistributed the land to all free men and women, and in return, people paid heavy taxes to support the imperial government.

By the 700s, Japan's imperial government looked much like China's. It was strongly centralized and supported by a large bureaucracy. Over time, however, one key

difference emerged. Although Prince Shotoku had called for government officials to be chosen on the basis of their ability, as in China, a powerful aristocracy developed in Japan during the 9th century. As a result, members of noble families held all the high positions in the government.



1. Describe Japan's government before it was influenced by countries on the Asian mainland.

2. Describe the new ideas about the government that Japan adopted and any changes the Japanese made to these ideas.

### **3. City Design: Adapting Chinese Ideas for a Magnificent City**

With a stronger central government and a large bureaucracy, Japan needed a new capital city. In 710, the imperial government built a Chinese-style capital on the site of the modern city of Nara.

The new city was a smaller version of Chang'an, China's capital. Chang'an had an area of 35 square miles and a population of

2 million people, whereas Nara, with about 8 square miles, had no more than 200,000 people. As in Chang'an, Nara's streets were laid out in an orderly checkerboard pattern, with a wide boulevard running down the center. In the northern section, Buddhist temples and monasteries clustered near the imperial palace.

There was one major difference between the two capitals. Chang'an was surrounded by a wall as protection against enemies. Nara did not have a wall.

1. Describe the ideas that Japan adopted for its new capital city.

2. What were the main differences between the capital cities of Japan and China?

## 2. The Missouri Compromise

When Congress returned to Washington in 1820, it took up the question of Missouri statehood once again. By then, the situation had changed, for Maine was now asking to enter the Union as a free state.

For weeks, Congress struggled to find a way out of its deadlock over Missouri. As the debate dragged on and tempers wore thin, Southerners began using such dreaded words as secession and civil war.

"If you persist," Thomas Cobb of Georgia warned supporters of the Tallmadge Amendment, "the Union will be dissolved. You have kindled a fire which . . . a sea of blood can only extinguish."

"If disunion must take place, let it be so!" thundered Tallmadge in reply. "If civil war . . . must come, I can only say, let it come!"

**A Compromise Is Reached** Rather than risk the breakup of the Union, Congress finally agreed to a compromise crafted by Representative Henry Clay of Kentucky. The **Missouri Compromise** of 1820 admitted Missouri to the Union as a slave state and Maine as a free state. In this way, it maintained the balance of power between slave and free states.

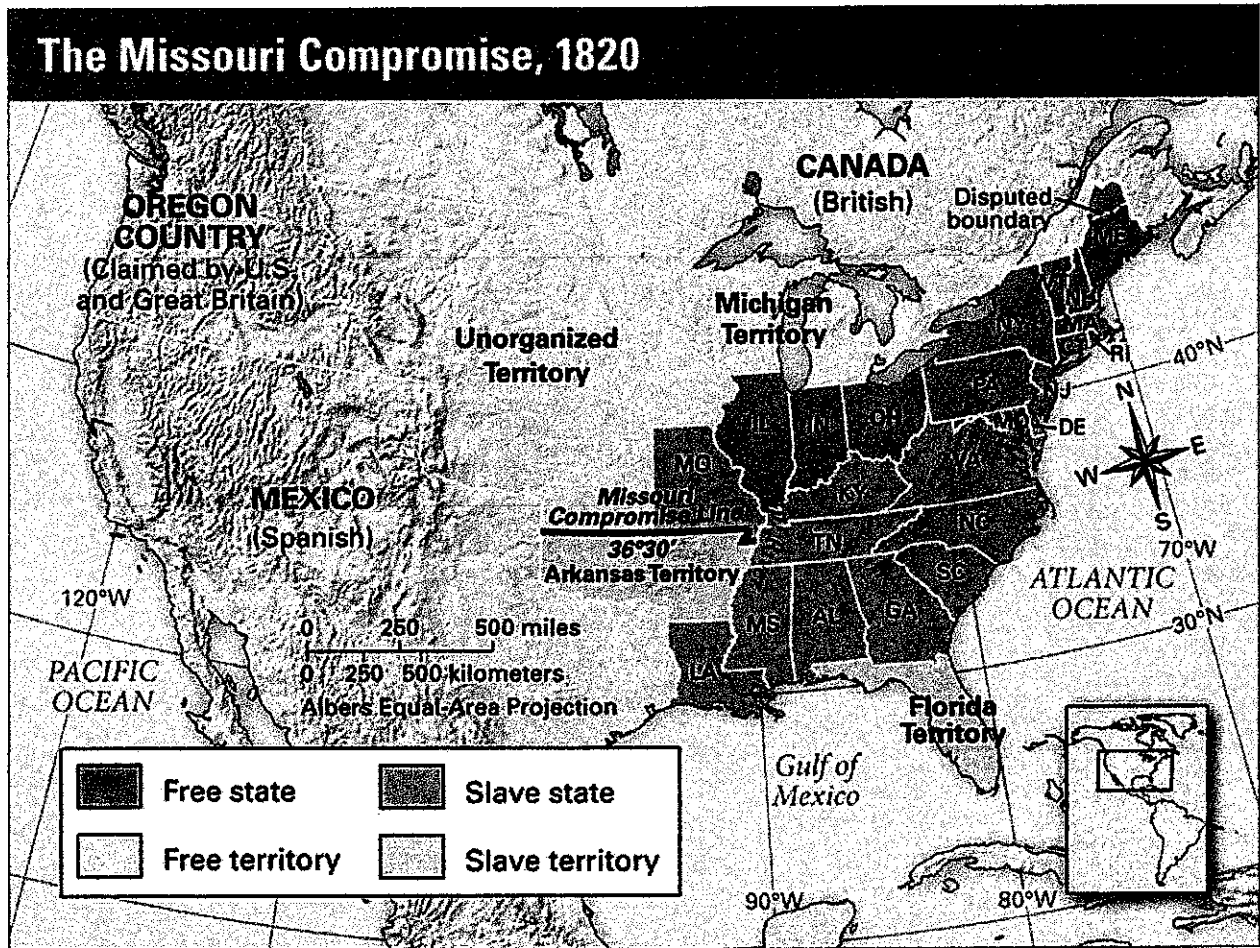
At the same time, Congress drew an imaginary line across the Louisiana Purchase at latitude 36°30'. North of this line, slavery was to be banned forever, except in Missouri, whereas slaveholding was permitted south of the line.

**Reactions to the Compromise** The Missouri Compromise kept the Union together, but it pleased few people. In the North, congressmen who voted to accept Missouri as a slave state were called traitors, and in the South, slaveholders deeply resented the ban on slavery in territories that might later become states.

Meanwhile, as Secretary of State John Quincy Adams recognized, the compromise had not settled the future of slavery in the United States as a whole. "I have favored this Missouri compromise, believing it to be all that could be effected [accomplished]



under the present Constitution, and from extreme unwillingness to put the Union at hazard [risk]," wrote Adams in his diary. "If the Union must be dissolved, slavery is precisely the question on which it ought to break. For the present, however, the contest is laid asleep."



1. What were the three decisions in the Missouri Compromise?
2. Explain how John Quincy Adams felt about the Missouri Compromise.

### 3. The Missouri Compromise Unravels

As John Quincy Adams predicted, for a time the “contest” over slavery was settled. However, a powerful force was building that soon pushed the issue into the open again: the Second Great Awakening. Leaders of this early-1800s religious revival promised that God would bless those who did the Lord’s work. For some Americans, the Lord’s work was the abolition of slavery.

**The “Gag Rule”** During the 1830s, abolitionists flooded Congress with antislavery petitions, but they were told that Congress had no power to interfere with slavery in the states. Abolitionists also wondered about the status of the District of Columbia: did Congress have the power to ban slavery in the nation’s capital?

Rather than **confront** this question, Congress voted in 1836 to table—or set aside indefinitely—all antislavery petitions. Outraged abolitionists called this action the “gag rule,” because it gagged, or silenced, all congressional debate over slavery.

In 1839, the gag rule prevented consideration of an antislavery proposal by John Quincy Adams, who was now a member of Congress. Knowing that the country would not agree on abolishing slavery altogether, Adams proposed a constitutional amendment saying that no one could be born into slavery after 1842. Congress, however, refused to consider his proposal.

**Southern Fears** Abolitionists were far from silenced by the refusal of Congress to debate slavery. They continued to attack slavery in books, in newspapers, and at public meetings.

White Southerners deeply resented the abolitionists’ attacks as an assault on their way of life. After Nat Turner’s slave rebellion in 1831, resentment turned to fear. Southern states adopted strict new laws to control the movement of slaves. Many states tried to keep abolitionist writings from reaching slaves. Mississippi even offered a reward of \$5,000 for the arrest and conviction of any person “who shall utter, publish, or circulate” abolitionist ideas.



**Fugitive Slaves** Nat Turner's rebellion was one of the largest slave revolts, but individual slaves also continued to rebel by running away to freedom in the North. These fugitives from slavery were often helped in their escape by sympathetic people in the North.

To slaveholders, these Northerners were no better than bank robbers because they saw a slave as a valuable piece of property. Every time a slave escaped, it was like seeing their land vanish into thin air. Slaveholders demanded that Congress pass a fugitive slave law to help them recapture their property.

**Slavery in the Territories** The gag rule kept the slavery issue out of Congress for ten years. Then, in 1846, President James Polk sent a bill to Congress asking for funds for the war with Mexico. Pennsylvania representative David Wilmot added an amendment

to the bill known as the **Wilmot Proviso**. (A proviso is a condition added to an agreement.) The Wilmot Proviso stated that "neither slavery nor involuntary servitude shall ever exist" in any part of the territory that might be acquired from Mexico as a result of the Mexican-American War.

Southerners in Congress strongly opposed Wilmot's amendment and maintained that Congress had no right to decide where slaveholders could take their property. The Wilmot Proviso passed the House, but it was rejected by the Senate.

**Statehood for California** For the next three years, Congress debated what to do about slavery in the territory gained from Mexico. Southerners wanted all of the Mexican Cession open to slavery, but Northerners wanted all of it closed.

As a compromise, Southerners proposed a bill that would extend the Missouri Compromise line all the way to the Pacific. Slavery would be banned north of that line and allowed south of it. Northerners in Congress rejected this proposal.

Then, late in 1849, California applied for admission to the Union as a free state. Northerners in Congress welcomed California with open arms, but Southerners rejected California's request. Making California a free state, they warned, would upset the balance between slave and free states. The result would be unequal representation of slave states and free states in Congress.

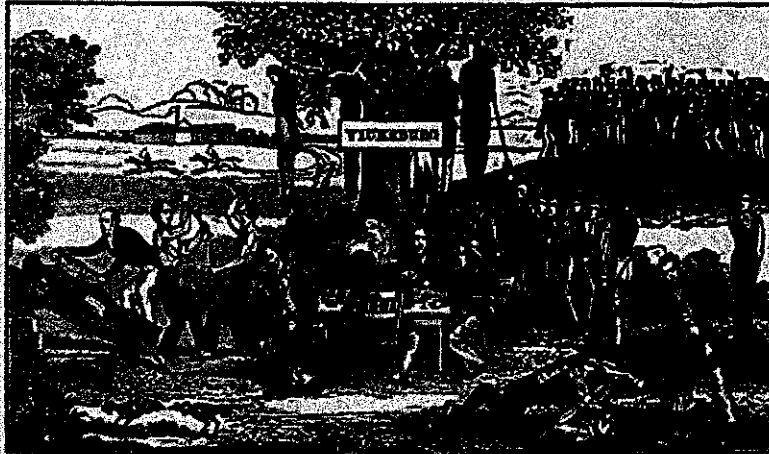
The year ended with Congress deadlocked over California's request for statehood. Once again, Southerners spoke openly of withdrawing from the Union. And once again, angry Northerners denounced slavery as a crime against humanity.

# EMANCIPATOR—EXTRA.

NEW-YORK, SEPTEMBER 2, 1839.

## American Anti-Slavery Almanac for 1840.

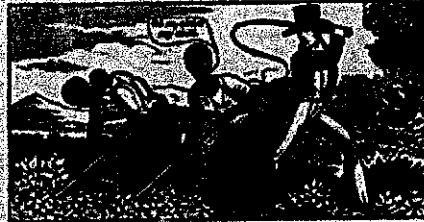
The seven cuts following, are selected from thirteen, which may be found in the Anti-Slavery Almanac for 1840. They represent well-authenticated facts, and illustrate in various ways, the cruelties daily inflicted upon three millions of native born Americans, by their fellow-countrymen! A brief explanation follows each cut.



*The peculiar "Domestic Institutions of our Southern brethren."*



*Selling a Mother from her Child.*



*Mothers with young Children at work in the field.*



*A Woman chained to a Girl, and a Man in irons at work in the field.*



*"They can't take care of themselves"; explained in an interesting article.*



*Hunting Slaves with dogs and guns. A Slave drowned by the two.*



*Seriousness of the Northern States in arresting and returning fugitive Slaves.*

1. What was John Quincy Adams's 1830 antislavery proposal?

2.What was the gag rule, and how did it affect his proposal?

3.How did the fugitive slave issue and the Wilmot Proviso pull the nation apart?

Fugitive Slave issue:

Wilmot Proviso:

4.Why did Northerners in Congress accept California's application for statehood while Southerners rejected it?