6th Grade Math AMI

Weeks 4-6

April 20 - May 8

Hello Students,

I have received some of your work as texted pictures and have enjoyed seeing your progress. I have also enjoyed helping some of you with the work. I know this is different, but different is not always easy or comfortable.

Those of you working in Google classroom, keep up the good work!

Please remember that I will not be seeing paper copies (ever) so text me pictures of your work if you want credit, feedback or help. Text the pictured work to 972-571-3032. If you are having trouble, you can text your question or request to 817-995-5012, or contact me using my school email. (clair.hartle@norfork.k12.ar.us) I have a spreadsheet that I am using to give students credit for their work.

I assigned a project for each grade level before we left school. I do expect you to do these. I also expect to see these emailed or texted as well. They are not difficult, treat them as fun. I have included a paper copy for fifth grade and an alternate copy for 6th grade students who were absent on Friday, March 13th. These are also in Google classroom.

We had a really good year and I have seen a lot of progress in your math skills. Complete the projects and all the AMI work. Keep the learning going over all the summer. Make or build something using measuring, cook using a recipe, plan,calculate the cost and time to cook a meal for your family.Then do it. Take up a new sport or hobby. Mostly read. I have finished 5 novels so far. I have built a bookshelf for Mrs. Hartle's rock collection and a saddle stand, began learning Tai Chi and playing the native flute. All these things keep your brain growing.

Looking forward to seeing your work and hearing about how fun and/or frustrating the work is. Text of email me.

Mr.Hartle

6th Grade students.

Before we left school you were given a project . The project work is still due. Please do the activities and text pictures of your pages to 972-571-3032. If you have a question or need help text that question or your help request to 817-995-5012.

Look forward to seeing those projects soon! (Nathalie & Dean- Since you were absent when the projects were handed out I will put an extra assignment in Google classroom for you, or send an extra packet page for you.) Classroom code for project-zpqbfsl

Math Mania:
Choose 3 to 4 math learning opportunities to build and reinforce your math skills.

- **Khan Academy:** If you have internet access, it is recommended that your child utilize the Khan Academy modules with built-in instruction to support math learning at least 3 days a week. Select your grade level or type in the web address and select the GET STARTED button. (Counts as one each day) If needed students may select a different grade, regardless of age.

  5th grade math https://www.khanacademy.org/math/cc-fifth-grade-math
  6th grade math https://www.khanacademy.org/math/cc-sixth-grade-math
  7th grade math https://www.khanacademy.org/math/cc-seventh-grade-math
  8th grade math https://www.khanacademy.org/math/cc-eighth-grade-math
  Algebra I

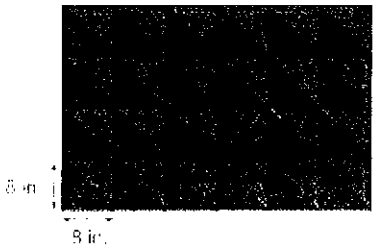
- **Friends You Can Count On**: You and your friend went to get ice cream. The restaurant has a sign with the different kinds of ice creams, candies/cookies, and toppings. You and your friend wonder how many different blasts you can make. Find all the combinations you can make and explain how you know you have found all of them.

Ice Cream	Candy/Cookie	Topping
Vanilla	Snickers Bar	Gummy Bears
Chocolate	Oreo Cookie	Rainbow Sprinkles
Strawberry	M & M Candy	Hot Fudge
	Peanut Butter Cup	

- **Cube Tower Challenges:** *Material: Paper and pencil; Crayons/Markers (Optional)*
  Work with a partner. Both of you read the challenge and secretly draw the tower on your paper. Then compare to see if you have the same tower. If the towers don't match, work together to decide what the tower should look like. Optional: make a color drawing of the tower. Create your own Cube Tower Challenge.
  Challenge:
  - There are 5 cubes: 2 white, 1 green, 1 blue, and 1 red.
  - The top and bottom of the tower are the same color.
  - Blue is between the two whites, but blue does not touch white.
  - The red cube is above the blue cube.

- **More Garage Sale Dominoes**: Mr. Blake knows that there are 28 dominoes in a double-six set. Since nine is 6 + ½ of 6, he estimates that there should be 28 + ½ of 28 dominos altogether in a double-nine set for a total of 42 dominoes. Is Mr. Blake correct in his estimate? Explain your reasoning using words, pictures and/or numbers.

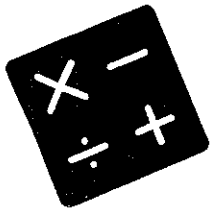
- **Area of Rectangle**: In *Odd Squad: Portlandia*, the second rectangular portal was composed of right triangles as seen in the picture to the right. What is the total area of the rectangle? Explain your thinking and don't forget the units.



- **Would you rather?** Which amount of 1 inch square pieces of chocolate would you rather have? Explain the reason for your choice.
  a. Enough to cover a rectangle with a length of 9 in. and a perimeter of 22 in.
  b. Enough to cover a rectangle with a length of 5 in. and a perimeter of 20 in.

- **Wrapping Presents:** *Material:* Rectangular box

Choose a box and find the smallest amount of paper needed to cover it on all sides. Think about nets and the surface area for rectangular prisms, including measures of length, width, and height. What is the volume of your box? Would the units for surface area and volume be the same or different? Explain your thinking.



- **Integer Subtraction Battle:** 2 players. *Materials:* Deck of Cards, Ace = 1, Jack = 11, Queen = 12, King = 13, Red cards = negative, black cards = positive.
  How to Play: Each person turns over two cards then subtracts the value of the second card from the value of the first card. The player with the highest value hand wins all 4 cards. Continue play until all cards have been used. The player with the most cards wins. (Remember: 2 - 3 = -1, -2 - (-3) = 1, 2 - (-3) = 5, -2 - 3 = -5)

- **Integer Addition**: In *Odd Squad: Slides and Ladders*, Oswald is lost in the OSMU van. The floors are connected with ladders and slides. The ladders take him up floors and slides take him down floors. He started on floor 10, then took an 8 slide, 2 ladder, 3 slide, and finally a 5 slide. What level is he on now? Does he need to take a slide or ladder to get back to the main floor (floor zero)? What number will the slide or ladder need to be? Use a vertical number line and/or an equation to help Oswald.

AMI Week 4-6 Schedule

Week 4

Choose 3 to 4 math learning opportunities to build and reinforce your math skills.

Kahn Academy- Do the video lesson set and the practice questions. Use a Google Document to report your score on the practice activities. *By set I mean the whole section of videos, not just one video.*

This is a set.

Intro to ratios
: Ratios, rates, & percentages
Equivalent ratios
: Ratios, rates, & percentages
Visualize ratios
: Ratios, rates, & percentages
Ratio application
: Ratios, rates, & percentages
Intro to rates
: Ratios, rates, & percentages
Intro to percents
: Ratios, rates, & percentages
Percent, decimal, fraction conversions
: Ratios, rates, & percentages
Percent problems
: Ratios, rates, & percentages
Percent word problems

Use this heading.

Video set Name Number correct from practice questions.

If you choose to do one of the other activities, put the activity title, show your work and put your solution. Place all of week 4 on one Google Document and share with Mr. Hartle.

Week 5

This is your week to complete your project. Text pictures of the completed project to 972-571-3032, or email to clair.hartle@norfork.k12.ar.us

5th Grade I have enclosed a copy of your project if you need a new copy.

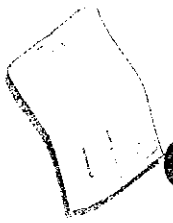
6th Grade make sure you take a picture of all 10 project pages and activities and text to 972-571-3032.

Or

If you have misplaced pages and have internet access you can do the Restaurant Menu project from Google Classroom. Classroom Code is zpqbfsl.

Week 6

Open the links and read the directions and introduction. This is a mystery for you to solve. The #2 image is a list of the possible criminals. Use this list as you complete the activities to help eliminate possible suspects. You cannot copy these documents, or work on them on the image itself. Do your work on a separate sheet, keep track of the suspects eliminated, finally share on a Google Document your solution to the crime.
Complete the other two mysteries and put their solution on this Google Doc. as well. All Week 6 work will be shared or texted then on 1 document with Mr. Hartle.



MATH MYSTERY: CASE OF THE SUPER BAD SUPERHERO

Date: _____

It is no secret that many superheroes reside on the island of Mathhattan. They usually help fight against crime and provide protection for us all. Sadly, something has changed and someone with superpowers is beginning to cause lots of trouble. This super bad superhero has begun to scare, intimidate and kidnap citizens! The police are powerless, and are unsure as to which superhero we can truly trust anymore...it could be any one of them! People no longer feel safe and are concerned their antihero is unstoppable.

Patrick, the Mayor of Mathhattan, addressed the public earlier this morning with the following speech:

"***Stay inside your homes, shut your windows and lock your doors, keep your phones handy for help and be wary of anyone wearing a mask. The MBI (Mathhattan Bureau of Investigation) and other secret sources have recently confirmed that this villain is actually one of who we call superheroes of Mathhattan. It is a mystery to us which superhero to trust and who we cannot. It is going to take some of our finest math detectives to work with the MBI on this serious case; no superhero can be involved. Hopefully, if we can discover who this terrible superhero is, we can put a stop to this chaos and release all of the captured citizens. Until we can reveal who is behind this, we ask that you hand over any evidence or information that you come across to help solve this mystery.***"

As the mayor stepped off the podium, a large puff of smoke blasted out of nowhere! As the smoke began to settle a shadowy silhouette took hold of the mayor and before anyone could do anything, . . . "POOF!" They both disappeared. The Mayor is now a prisoner of this super bad supervillain.

MATH DETECTIVE NEEDED TO REVEAL THE SUPER BAD SUPERHERO!

The chaos continues throughout the town; the disguised antihero is doing a good job at keeping his/her identity hidden while scaring and capturing citizens. Everyone in Mathhattan is counting on you to take a closer look at all those we call superheroes and unveil the phony! Upon discovery, alert the good superheros as to who the villain is so that they can help with the arrest and rescue the trapped mayor and citizens!

Be careful not to become a victim yourself!

Name: _____

Mrs J's Resource Creations

POSSIBLE SUSPECTS

Superhero Name	Main Superpower	Extra Superpower	Gender M/F	Hair Color	Weakness
Lion Man	Super Speed	Shape Shifting	Male	Orange	Glasses
Dare Girl	Invisibility	Super Strength	Female	Purple	Silver
Mega Mage	Teleportation	Poisonous Burps	Male	Green	Cookies
Owl Man	Invisibility	Shape Shifting	Male	Purple	Sunlight
Blitzfire	Energy Blasts	Super Strength	Female	Orange	Silver
Thunder Hawk	Super Speed	Sonic Scream	Male	Purple	Sunlight
Razor	Energy Blasts	Sonic Scream	Male	Orange	Cookies
Starlight	Invisibility	Flight	Female	Green	Sunlight
Lady Bug	Teleportation	Shape Shifting	Female	Purple	Silver
The Giggler	Mind Control	Poisonous Burps	Male	Green	Cookies
Captain Nucleus	Super Speed	Flight	Male	Orange	Silver
Mrs. Amazing	Mind Control	Sonic Scream	Female	Purple	Sunlight
Doctor Bolt	Mind Control	Super Strength	Male	Orange	Silver
Splash	Energy Blasts	Poisonous Burps	Male	Orange	Cookies
Zapman	Teleportation	Flight	Male	Purple	Silver
Pizza Peter	Super Speed	Poisonous Burps	Male	Green	Sunlight
Titanicus	Energy Blasts	Super Strength	Male	Green	Cookies
Typhoon	Super Speed	Sonic Scream	Female	Orange	Silver
Blinker	Teleportation	Poisonous Burps	Female	Purple	Silver
Major Fury	Super Speed	Flight	Male	Green	Sunlight
Colossal Crush	Invisibility	Super Strength	Male	Green	Cookies

Solve the clues and then cross the suspect rows off the list until only one suspect remains! The last suspect remaining is the Super Bad Superhero behind the trouble in Mathhattan! Whole rows must be eliminated at a time.

Name: ____________________

ROUNDING DECIMALS – CLUE 1

[illegible]

The first one has been done for you.

T		
6	7	8

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

					T
11.4	10	[illegible]	[illegible]	[illegible]	6

[illegible]	[illegible]	[illegible]

Question	Answer	Letter
What is 5.8 rounded to the nearest whole number?	6	T
What is 3.4 rounded to the nearest whole number?		I
What is 7.9 rounded to the nearest whole number		E
What is 10.1 rounded to the nearest whole number?		A
What is 4.51 rounded to the nearest whole number?		F
What is 2.09 rounded to the nearest whole number?		H
What is 7.16 rounded to the nearest tenth?		N
What is 4.54 rounded to the nearest tenth?		Y
What is 6.05 rounded to the nearest tenth?		O
What is 11.43 rounded to the nearest tenth?		C
What is 5.251 rounded to the nearest tenth?		V
What is 2.638 rounded to the nearest hundredth?		L

Name: ____________________ Mrs. T's Resource Creations

ADDING DECIMALS – CLUE 2

Solve another [illegible] clue by completing the addition questions [illegible] and place the letters in the boxes to reveal the clue. Put the letter in [illegible] your answer in (there may be more than [illegible]).

The first one has been done for you.

					N			
[illegible]		14.46	8.826	[illegible]	8.17	3.466	[illegible]	[illegible]

[illegible]	5.464	9.881	4.325	[illegible]	[illegible]	7.55	0.362	[illegible]	[illegible]	[illegible]

				N						
0.362	7.59	5.464	[illegible]	8.17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

8.826	7.95	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

N	S	H	R	A
7.12 + 1.05 = 8.17	4.61 + 3.34	5.97 + 1.62	1.63 + 2.07	8.29 + 9.41

O	I	E	P	W
2.944 + 1.381	5.723 + 3.103	3.451 + 0.015	7.938 + 1.943	6.462 + 7.998

T	L	M
0.357 + 0.005	4.875 + 2.225	1.709 + 4.140

Name: ______________________ Mrs J's Resource Creations

SUBTRACTING DECIMALS – CLUE 3

[illegible]

The first one has been done for you.

		L							
4.453		6.05	4.453	0.588	[illegible]		[illegible]	4.453	[illegible]

		L									
4.453	3.91	6.05	4.501		1.85	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]

1.17	2.645	2.645		1.85	2.551	4.501

4.453	0.588	[illegible]	[illegible]	2.551	4.501	3.56	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]

3.325	[illegible]	[illegible]	4.108	1.56	4.501	0.324

L	T	B	R	Y	I
9.26 − 3.21 = 6.05	3.97 − 2.12 = ____	4.76 − 0.85 = ____	9.58 − 6.02 = ____	5.45 − 5.19 = ____	1.89 − 0.33 = ____

W	F	S	A	H	C
8.215 − 6.418 = ____	7.276 − 4.631 = ____	2.046 − 1.722 = ____	6.904 − 2.451 = ____	2.799 − 0.248 = ____	4.65 − 1.325 = ____

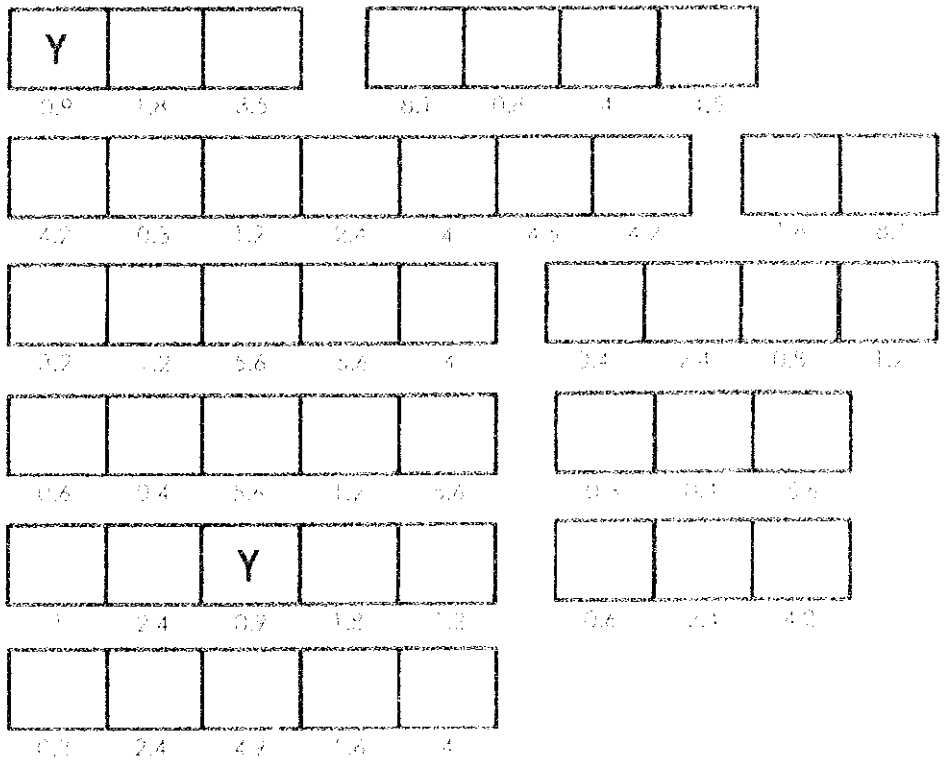
D	K	N	E	O
1.27 − 0.561 = ____	6.591 − 2.483 = ____	0.904 − 0.316 = ____	7.542 − 3.041 = ____	8.789 − 7.619 = ____

Name: _____ Mrs J's Resource Creations

MULTIPLYING WITH DECIMALS – CLUE 4

Solve another important code by completing the multiplication questions. Once you have solved, match and place the letters in the boxes to reveal the code. Put the letter in every box that matches your answer in. There may be more than one.

The first one has been done for you.



3 X 0.3 = 0.9 = Y

4 X 0.2 = _____ = I

2 X 0.3 = _____ = W

9 X 0.5 = _____ = D

5 X 0.7 = _____ = U

6 X 0.2 = _____ = R

7 X 0.7 = _____ = K

9 X 0.1 = _____ = T

4 X 0.6 = _____ = A

8 X 0.5 = _____ = N

2 X 0.9 = _____ = O

5 X 0.7 = _____ = M

8 X 0.7 = _____ = E

6 X 0.7 = _____ = S

4 X 0.8 = _____ = G

9 X 0.9 = _____ = F

7 X 0.9 = _____ = H

Name:

DIVISION (2-DIGIT DIVISORS) – CLUE 5

In the grid below you will find a number of statements being [illegible] [illegible] them is revealing the correct final [illegible]. Complete the division questions [illegible] answer in the statement boxes and [illegible] box [illegible] been eliminated. The one statement box left standing after completing [illegible] [illegible] the correct [illegible].

The super bad Superhero uses invisibility to shock people with sudden energy blasts coming out of nowhere. **121**	[illegible] **527**	The super bad Superhero casts icy energy blasts to make victims stick to the floor and uses mind control to make them walk back to wherever this strange imprisonment is. **88**	[illegible] **11**
The super bad Superhero uses poisonous burps to weaken victims, then teleports to make a fast get away. **8**	The super bad Superhero uses super strength to lift cars with people in them and then uses the power of invisibility to make them disappear. **97**	The super bad Superhero uses invisibility to stealth through the streets and uses super strength to keep everyone away. **9**	The super bad Superhero [illegible] electric energy blasts to destroy walls and then teleports victims inside to somewhere strange. **2**
The super bad Superhero uses poisonous burps to make people faint and then casts mind control to make them walk to the hidden prison. **6**	The super bad Superhero uses super speed to catch victims without no one else noticing, then teleports them somewhere secret. **1**	[illegible] **432**	The super bad Superhero travels around like a bug and then shapeshifts into human form to cast poisonous burps on everyone. **128**

76 ÷ 38 =

5,270 ÷ 10 =

86 ÷ 86 =

8,960 ÷ 70 =

882 ÷ 98 =

204 ÷ 34 =

594 ÷ 54 =

2,783 ÷ 23 =

7,776 ÷ 18 =

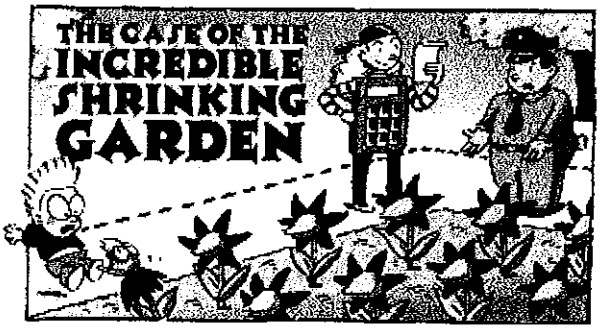
7,178 ÷ 74 =

5,720 ÷ 65 =

MATH MAVEN'S MYSTERIES

Name: _____

Date: _____



The Case of the Incredible Shrinking Garden

Hello, super sleuths! I definitely need your math smarts to crack this latest case. It all started the other afternoon as I was walking down Main Street. The birds were chirping and the scent of spring flowers filled the air. Suddenly I noticed a noisy crowd gathering in the town park near the famous rose garden. There was a buzz of shock and dismay:

"Oh, it's just awful! Our beautiful garden is disappearing!"

"Who could do such a thing?"

I pushed my way through the crowd and froze at the sight. Our precious rose garden that used to stretch 40 feet across the park was shrinking right before our eyes!

Just then Police Chief Billy Jay Cyprus ran over to me. "Math Maven, we need your help. I'm afraid this little prank is the work of that botanical rascal Ima Grubb."

You see, Ima was the top plant specialist for the town park. But last month she ran an experiment in which she crossed Venus-flytraps with violets and created pretty little purple flowers that snapped at people passing by. Needless to say, Mayor Rhett Angle fired her immediately -- and rumor had it that Ima was out for revenge!

"We found this stuck on one of the rose thorns." Chief Cyprus handed me a note written in flowery script:

SO MAYOR ANGLE REJECTED ME?
"A DANGER TO THIS TOWN!" SAID HE.

A CLEVER PLAN I HAVE DEVISED,
TO CUT YOUR GARDEN DOWN TO SIZE.

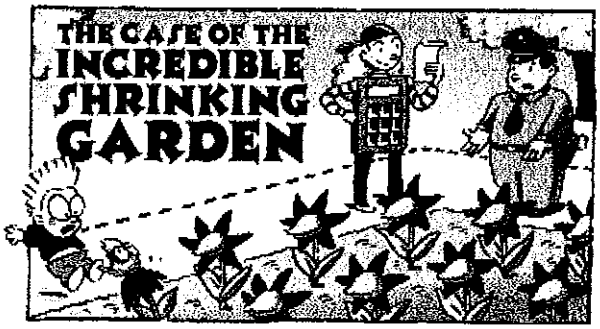
Notes:

MATH MAVEN'S MYSTERIES

Name: _____

Date: _____

The Case of the Incredible Shrinking Garden



WHAT ONCE WAS 800 SQUARE FEET IN ALL,
WILL SOON BE 100 TIMES AS SMALL!

TO SAVE YOUR BLOOMS, USE YOUR MIND:
THE NEW DIMENSIONS YOU MUST FIND.

WRITE THE NUMBERS ON MY MAGIC HOE,
AND WATCH YOUR PRECIOUS GARDEN GROW!

"I don't even know where to begin!" cried Chief Cyprus. "Math Maven, can you help me?"

"Don't worry, Chief," I said. "My Math Detectives will get right on it."

Notes:

MATH MAVEN'S MYSTERIES

Name: _____

Date: _____

Solve the Mystery!

OK, Math Detectives. Your job is to find the new length and width measurements of the shrunken garden. It's the only way to restore the garden to its original dimensions. Remember, the garden is a rectangle. The area of a rectangle is found by multiplying its length by its width. The new area of the shrunken garden is 100 times smaller than the original area.

Here's a Math Maven Hint: Even though the garden shrunk, the proportions did not change—so the length to width ratio is the same.

What are the dimensions of the garden after Ima Grubb shrunk it?
Circle the correct answer:

A. 1 foot wide, 8 feet long

B. 2 feet wide, 4 feet long

C. 5 feet wide, 2 feet long

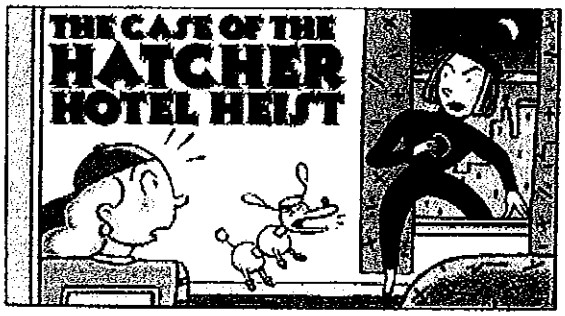
D. 20 feet wide, 40 feet long

Use this space to show your work:

MATH MAVEN'S MYSTERIES

Name: _____

Date: _____



The Case of the Hatcher Hotel Heist

Calling all math detectives! Math Maven here, at the world-famous Hatcher Hotel, the scene of our latest crime. This glitzy hotel is a favorite vacation spot for celebrities, but today some sneaky scoundrel has been stealing valuables from the hotel rooms.

The first robbery occurred early this morning in room 356. Lexy Lashes, the national beauty queen, was missing her diamond tiara.

"Math Maven, thank goodness you're here!" cried Lexy. "I need my crown. I can't attend this evening's ball without it!"

"Don't worry, Lexy," I assured her. "We'll track down the thief and recover your tiara." Just then, I noticed the number 213 written in lipstick on the bathroom mirror.

Suddenly, I received a call from Colonel Crumbottom in room 569. His rare cufflinks had been stolen while he was in the shower. "I say, Math Maven," exclaimed the colonel when I arrived. "You really must put a stop to this! Those were my lucky derby cufflinks. Each solid gold link was in the shape of a race horse."

"Never fear, Colonel Crumbottom," I told him. "I think I may have found another clue." Someone had placed three of the colonel's playing cards in a row on the coffee table. The numbers read 3-2-4.

Suddenly, there was a loud shriek. In room 245, we found Mrs. Periwinkle gaping into an empty jewelry box. "My precious pearl earrings are gone!" she cried. "The thief even spilled baby powder all over my dresser!" In the white mess, someone had written the number 542.

What could these numbers mean? I thought.

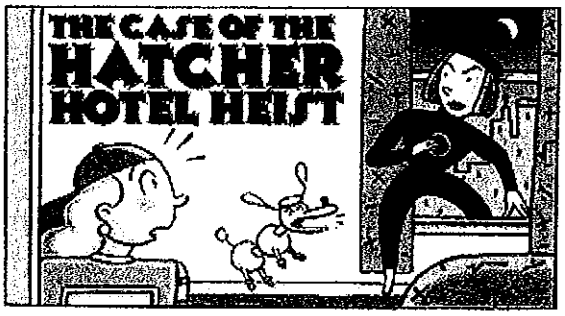
Notes:

MATH MAVEN'S MYSTERIES

Name: _____

Date: _____

The Case of the Hatcher Hotel Heist



Then it hit me—Tanya Trailblazer must be behind these rotten robberies! She always leaves a sneaky number clue at the scene of her crime. But how can we use these numbers to catch her in the act?

Just then, we heard a dog barking. We rushed to find Fluffy the Famous Poodle yipping loudly in room 787 - and Tanya Trailblazer sneaking out the window with Fluffy's ruby collar! "You'll never catch me, Math Maven!" snickered Tanya. "My clues are too clever!"

We noticed Fluffy had stopped barking and was about to eat the next clue! Tanya had arranged the number 183 out of dog food.

Notes:

MATH MAVEN'S MYSTERIES

Name: _____

Date: _____

Solve the Mystery!

Okay, Super Sleuths. We don't have much time. Which room is Tanya Trailblazer heading to now? If we get there before her, we can catch her in the act!

Here's a Math Maven Hint: Tanya Trailblazer especially likes to add and subtract numbers.

A. Room 183
B. Room 604
C. Room 970

Use this space to show your work: