Mrs J's Resource Creations ©

MATH MYSTERY:
CASE OF THE MAGNIFICENT GROWTH MINDSET



Date: _____

Our reporters are searching far and wide across the country to find the student who demonstrates a magnificent growth mindset. The winner will win a special golden trophy!

Nominations from the schools listed below are in the running to receive the trophy this year:

- ❑ Mathattan Elementary
- ❑ Readville Elementary
- ❑ Tale Town Elementary

Everyone is wondering who the champion will be. But, finding the winner is proving to be a difficult task. Many of the students in the running to win this competition possess amazing qualities, attitudes, and beliefs towards life and learning. That is why, Mathattan Headquarters are calling upon one of their most hard working and dedicated Math Detectives to help solve which one of the student nominees should win the Magnificent Growth Mindset title this year!

WHICH NOMINEE HAS A MAGNIFICENT GROWTH MINDSET?

The nominees are listed on the following page with important information collected from their interviews. This information will help the detective during the investigation. Math Detective, use your amazing math skills to help find the winner of the trophy! We are counting on you to demonstrate these qualities during your work on the case.

Name: _____ *Case of The Magnificent Growth Mindset* Mrs J's Resource Creations ©

POSSIBLE WINNERS

Nominee	Elementary School	When I make a mistake I believe that	When I don't receive the feedback that I want to hear I	When tasks get tough I	When others are successful I
Little Red	Tale Town	Mistakes are bad	Feel like a failure	Keep trying	Feel inspired
Barry Banana	Readville	Mistakes are bad	Look for ways to improve	Give up	Feel threatened
Gimpy the Goblin	Mathattan	Mistakes help me learn	Feel like a failure	Keep trying	Feel inspired
Goldilocks	Tale Town	Mistakes help me learn	Look for ways to improve	Give up	Feel inspired
Olivia Orange	Readville	Mistakes help me learn	Feel like a failure	Keep trying	Feel inspired
Sam Stone	Mathattan	Mistakes are bad	Look for ways to improve	Keep trying	Feel threatened
Harry the Hare	Tale Town	Mistakes are bad	Feel like a failure	Give up	Feel threatened
Rachel Richman	Readville	Mistakes help me learn	Look for ways to improve	Keep trying	Feel inspired
Nugget Swiftcrumb The gnome	Mathattan	Mistakes help me learn	Look for ways to improve	Keep trying	Feel threatened
Fred the Frog Prince	Tale Town	Mistakes help me learn	Feel like a failure	Keep trying	Feel inspired
Gary Grape	Readville	Mistakes are bad	Look for ways to improve	Keep trying	Feel inspired
Mikita Morton	Mathattan	Mistakes help me learn	Look for ways to improve	Keep trying	Feel inspired
Tina the Turtle	Tale Town	Mistakes help me learn	Look for ways to improve	Keep trying	Feel inspired
Peter Pear	Readville	Mistakes help me learn	Look for ways to improve	Give up	Feel inspired
Jacob Janner	Mathattan	Mistakes help me learn	Look for ways to improve	Give up	Feel inspired
Suzie Sunshine	Readville	Mistakes are bad	Look for ways to improve	Keep trying	Feel inspired
Hansel Leiderhosen	Tale Town	Mistakes help me learn	Look for ways to improve	Give up	Feel inspired

Solve the clues and then cross the nominees off the list until only one character remains! The last character remaining is the Magnificent Growth Mindset winner!

Whole rows must be eliminated at a time.

Name: _____ *Case of The Magnificent Growth Mindset* Mrs J's Resource Creations ©

ADDITION (NO REGROUPING) – CLUE 1

Complete the addition algorithms to reveal the first clue. Use your answers to match and place the letters in the boxes to see what you discover! Put the letter in every box that it matches your answer in (there may be more than one!)
The first one is already done.



			S			
38	57	86	35	57	79	84

90	73	27	27	86	60

98	48	37	86	86

		S					
73	27	35	46	73	60	86	48

98	
91	59

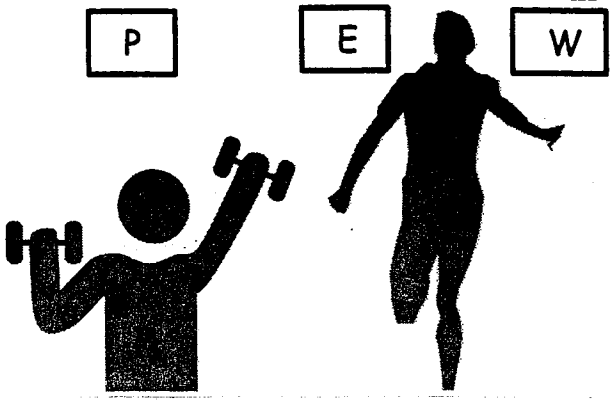
			S			S	S
38	57	86	35	84	58	58	86

						S
79	37	79	38	57	86	60

21	10	15	30	80	26	45
+ 14	+ 17	+ 22	+ 18	+ 11	+ 23	+ 12
35						
S	N	F	D	B	A	H

33	28	65	49	12	54	70
+ 40	+ 10	+ 33	+ 10	+ 34	+ 32	+ 20
I	T	L	Y	P	E	W

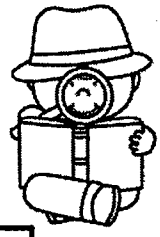
37	45	42	30
+ 21	+ 34	+ 42	+ 30
C	O	U	R



Name: _____ *Case of The Magnificent Growth Mindset* Mrs J's Resource Creations ©

SUBTRACTION (NO REGROUPING) – CLUE 2

Complete the subtraction algorithms to reveal the next clue. Use your answers to match and place the letters in the boxes to see what you discover! Put the letter in every box that it matches your answer in (there may be more than one!)



45	18	78	92	26	31	84
- 10	- 12	- 25	- 30	- 14	- 30	- 63
T	L	V	M	D	H	O

46	19	59	57	29	99	82
- 32	- 11	- 33	- 23	- 14	- 79	- 10
U	E	S	A	N	I	Y

67	70	51	15	77	72	46
- 43	- 40	- 41	- 4	- 26	- 11	- 23
G	R	W	B	F	K	P

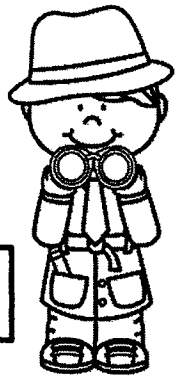
35	1	8					
10	20	15	15	20	15	24	
26	35	14	12	8	15	35	
62	14	26	35				
11	8	6	20	8	53	8	
35	1	34	35				
62	20	26	35	34	61	8	26
1	8	6	23				
10	20	35	1				
6	8	34	30	15	20	15	24

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Counting Patterns – CLUE 3

Discover the next clue by applying the counting rule given for each pattern and filling in the blanks to complete the number sequence. Use your answers to match and place the letters in the boxes to reveal the clue. Put the letter in every box that it matches your answer in (there may be more than one!)

			24	15	60						
						14	25	80	80	60	85
20	30	95	24			26	60				
	O			O						O	
95	10	20	60	10	80	60				14	15	10
50	60	60	28	95		24	85	90	25	80	16
14	15	60	80			24	12	95	50	95	
16	60	24				24	10	30	16	15	



Count by 2's

4, 6, 8, **10**, _____, _____, _____, _____

O A W G

Count by 5's

5, 10, _____, 20, _____, _____, 35

H I U

Count by 10's

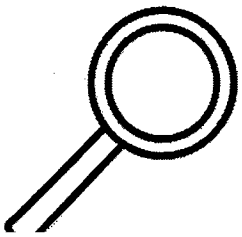
10, _____, 30, 40, _____, _____

M K E

Count by 2's

20, 22, _____, _____, _____, 30

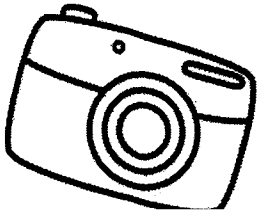
T B P



Count by 5's

70, 75, _____, _____, _____, _____

N R Y S



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PLACE VALUE – CLUE 4

Discover another clue about who the winner should be by writing the value of the underlined digit in each question. Use your answers to match and place the letters in the boxes to reveal a clue. Put the letter in every box that it matches your answer in (there may be more than one!) The first one is already done for you.

1	30	500	2	300	40	900	70	10	4				
500	300	50	4	300	700	4	3	2	300				
900	300	300	80	500	F		20	300	5	3	90	400	500
30	300	1	50	100	5	300	9	4					



Write the value of the underlined digit.

1<u>2</u>4 - **20** F	<u>9</u>24 - _____ L	3<u>5</u>9 - _____ M
43<u>2</u> - _____ H	7<u>3</u>6 - _____ T	<u>4</u>7 - _____ U
<u>5</u>06 - _____ S	25<u>5</u> - _____ R	<u>4</u>04 - _____ Y
3<u>9</u>7 - _____ A	<u>3</u>15 - _____ O	18<u>9</u> - _____ V
10<u>3</u> - _____ W	26<u>4</u> - _____ E	<u>7</u>25 - _____ N
6<u>1</u>2 - _____ B	8<u>7</u>3 - _____ D	<u>1</u>50 - _____ P
93<u>1</u> - _____ I	3<u>8</u>6 - _____ K	

Name: _____ *Case of The Magnificent Growth Mindset* Mrs J's Resource Creations ©

ADDITION & SUBTRACTION (WITH REGROUPING) – CLUE 5

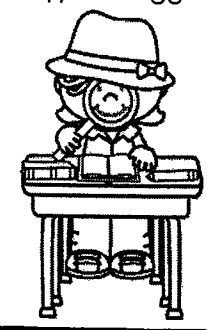
Complete the addition and subtraction algorithms to reveal the next clue. Use your answers to match and place the letters in the boxes to see what you discover! Put the letter in every box that it matches your answer in (there may be more than one!)

30	80	84	69	61	79	76	84

46	9	17	83

84	30	7	79

84	17	41	76



30	7	41	30	60	80

19	69	84	80

7	17	84	80

17	46

79	46	46	17	9	84

39	76	84	17	

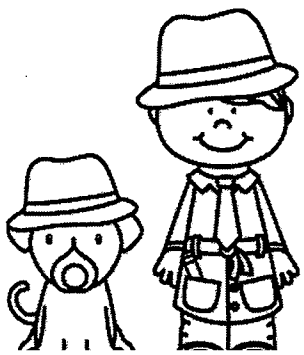
30	7	7

84	30	80	71	80

32 + 29	53 - 14	15 + 15	90 - 21	55 + 28	64 - 18	27 + 14
D	I	A	U	M	F	W

86 - 79	23 + 37	44 - 25	56 + 24	90 - 19	57 + 22	21 - 12
L	Y	P	S	K	E	R

19 + 65	54 - 37	85 - 9
T	O	N



Read the passage 3 times.

Answer the questions on the next page. Underline your evidence.

Name _____



New School

Ben and his family had just moved to a new town, and it was his first day at his new school, Big Springs Elementary. Ben was pretty timid around new people, so he was afraid that he wouldn't be able to make any friends. Trent, his best friend from his old school, had given him a silver dollar before he left as a good luck charm. Ben brought it to school in his pocket, hoping it would help him be brave.

When he walked into his new classroom, everyone stopped working and looked at him. He felt his face redden slightly as every pair of eyes was on him. His new teacher, Mrs. Ross, introduced him to the class. "You can sit here, by Max," Mrs. Ross told him. Ben took his seat at the wobbly desk. All morning, Ben tried to forget about being shy and focus on his math problems. Every time he put his elbow down, the desk would shift one way and then the other. He couldn't get it to be still. He felt like everyone was staring at him as he wrestled with his desk. He raised his hand and asked to be excused to get a drink of water, but Mrs. Ross said they would all be taking a break in a few minutes so he needed to wait.

Ben felt hot tears welling up in his eyes when all of a sudden, Max handed him a small folded up piece of paper. "Here," he whispered, "stick this under the leg of your desk." Ben put the paper on the ground and instantly the desk became stable! Ben felt a wave of relief wash over him.

Soon it was time for lunch. As the class walked to lunch, Max asked Ben if he wanted to sit with him. Ben said yes. They talked and laughed all during lunch and Max even invited Ben to play at his house after school. On the way back to class, Ben thought about his silver dollar. It really was a good luck charm. He reached in his pocket to get the coin, but it wasn't there! He almost panicked but when he entered the classroom he saw it lying on the floor by his desk. He picked it up and said, "I guess I didn't need good luck after all, just a good friend." He smiled at Max and took his seat.

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Name _____

New School

Answer the questions below. Use crayons or colored pencils to underline your evidence in the passage.



Why was Ben afraid that he might not make any friends?

_____

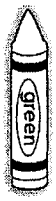
_____



What happened when he first walked into his new classroom?

_____

_____



What was the problem with Ben's desk?

_____

_____



How did Max help Ben?

_____

_____



What happened during lunch?

_____

_____

Make an inference. Why did Ben think he didn't need good luck after all?

_____

_____

_____



Circle words or phrases in the passage that gave you a clue.

What can you do to help a new student at your school?

_____

_____

_____

_____

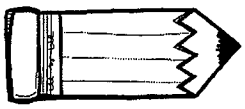
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Read the passage 3 times.

Answer the questions on the next page. Underline your evidence.

Name _____



Pencil History

Pencils have been used for hundreds of years, but they didn't always look like the ones you use today. In ancient Rome, people used a writing instrument called a stylus. It was a thin metal rod that would leave a light mark on papyrus (an early form of paper).

In 1564, a large amount of graphite was found in Borrowdale, England. Graphite is a fairly common mineral that occurs naturally in the earth. People realized that the graphite would leave a dark mark and could be used for writing. However, it was too soft and brittle to hold, so they used string or sometimes sheepskin to wrap around it. Later, the graphite was put into hollowed out wooden sticks. These looked more like the pencils we use today. American colonists used pencils imported from Europe until after the American Revolution. It is said that a cabinetmaker in Massachusetts named William Munroe made the first American wood pencils in 1812. In 1858, a man named Hymen Lipman had the idea to attach an eraser on the end of a pencil. By the end of the 19th century, over 240,000 pencils were used each day in America.

Have you ever wondered why many pencils are painted yellow? In the late 1800s, the best graphite in the world came from China. In China, the color yellow indicates royalty and respect. People in America who made pencils wanted to show that their pencils were the best, so they painted them yellow. Not all countries use yellow pencils though. In Germany, they are often green, blue, or black. In Australia, many are red with black bands at one end. In India, the most common pencil color is dark red with black lines.

With computers and other technology being used more and more for tasks that used to require pencils and paper, many people thought that pencils would become <u>obsolete</u>, but surprisingly, sales continue to grow. An estimated 15 to 20 billion pencils are made each year!

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Name _____

Pencil History

Answer the questions below. Use crayons or colored pencils to underline your evidence in the passage.



What was a Roman stylus?

_____

_____



Why did people put string around early pencils?

_____

_____



Who had the idea to put an eraser on pencils?

_____

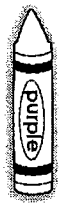
_____



Why is yellow a traditional pencil color in America?

_____

_____



What are popular colors for pencils in Germany?

_____

_____

Make an inference. What does <u>obsolete</u> mean?

_____

_____



Circle words or phrases in the passage that gave you a clue.

Imagine you invent a new kind of pencil. Tell about it.

_____

_____

_____

_____

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