

# MATH MYSTERY

## Case of the SCHOOL INVADERS

GRADE

6



Mrs J's Resource Creations ©

# MATH MYSTERY:

## CASE OF THE SCHOOL INVADERS

September 5 2041

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The students of Mathhattan Elementary recently returned to school from the holidays to find that their school environment has been invaded by slimy aliens from the planet Geometron! These school invaders are making students feel squished and miserable as they continue to use their desks, seats, and playground to camp in.

Katrina, a student of Mathhattan Elementary, cried, *"There is alien slime everywhere! It's so gross! My classroom stinks like smelly cheese, and one of the aliens is using my desk as a bed!"*

Another student, named William, complained, *"I was really excited to come back to school. But, sharing our classrooms with these aliens is making it hard to enjoy learning, especially when my seat is all sticky and my lunch gets eaten by them!"*

Mayor Patrick spoke with the leader of the aliens earlier this morning. He attempted to persuade the aliens to vacate the school and return to their planet, however Patrick was asked to deliver something very important to the invaders as a condition to give the school completely back to the students of Mathhattan Elementary.

Post discussion, the Mayor released the following statement, *"The reason why the aliens have invaded the school is because they are simply stuck there. They crash landed nearby and lost their transponder, which was their only communication device to the mothership. The leader is very angry with the alien responsible for losing it, but that doesn't help the situation. He has requested that we help them find this transponder device, then they will be able to contact the mothership to pick them up and return to their home planet."*

The police have begun their search, but since Mathhattan is so large, they are struggling to locate where this transponder could be. The longer it takes them to find this device, the slimier and smellier the school is getting. The students are already beginning to wear gas masks!

### **MATH DETECTIVE NEEDED TO HELP FIND THE SCHOOL INVADERS' TRANSPONDER!!!**

The police have made a list of all the possible locations that the transponder could be found, however they need a super detective with math skills to quickly solve where the device is located. Help solve this mystery before the students start to stick to the classroom floor!

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

# POSSIBLE LOCATIONS

Location	Main type of object in area	In or Out of The School Grounds	Indoors/ Outdoors	Positional Direction	Close/Far from Crash Site
The Principal's Office	Books	In	Indoors	North	Close
The Playground	Trees	In	Outdoors	East	Close
The Library	Books	Out	Indoors	West	Close
Crystal Lake	Trees	Out	Outdoors	South	Close
The Cheese Factory	Food	Out	Indoors	North	Far
The School Canteen	Food	In	Indoors	East	Close
Harry's Bookstore	Books	Out	Indoors	South	Far
The Wizard's Tower	Books	Out	Indoors	North	Close
Pepe's Pizzeria	Food	Out	Indoors	South	Far
The Whispering Woods	Trees	Out	Outdoors	West	Close
Mathhattan's Retro Theme Cafe	Food	Out	Indoors	South	Far
The Teachers' Lounge	Books	In	Indoors	North	Close
Vikki's Vegetable Garden	Food	Out	Outdoors	North	Close
Dr Morton's Study	Books	Out	Indoors	West	Close
The Fraction Garden	Trees	Out	Outdoors	East	Close
The Fruit Market	Food	Out	Outdoors	South	Close

**Solve the clues and then cross the location off the list until one remains! The last location remaining is where the school invaders' transponder can be found!**

# ORDER OF OPERATIONS – CLUE 1

Crack the code by simplifying the expressions below using order of operations and parentheses. 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!) The first one has been done for you!

23	46	28

1	28	19	9	70	28

9	16

		O		
70	107	7	16	28

	O
23	7

23	46	28

70	13	110	16	46

16	9	23	28

$$(2 \times 3) + 1 = \frac{7}{\text{O}}$$

$$5 + 2 \times 4 = \frac{\quad}{\text{R}}$$

$$35 \div 7 + 10 - 6 = \frac{\quad}{\text{I}}$$

$$4 + 9 \times 5 - 3 = \frac{\quad}{\text{H}}$$

$$20 - 12 \times 3 \div 9 = \frac{\quad}{\text{S}}$$

$$66 \div 6 + 4 \times 2 = \frac{\quad}{\text{V}}$$

$$50 - 6 \times 7 + 20 = \frac{\quad}{\text{E}}$$

$$25 \div 5 + 3 \times 6 = \frac{\quad}{\text{T}}$$

$$10 \times 11 - 6 + 2 \times 3 = \frac{\quad}{\text{A}}$$

$$90 \div 10 - 4 \times 2 = \frac{\quad}{\text{D}}$$

$$100 - 9 \div 3 + 10 = \frac{\quad}{\text{L}}$$

$$23 + 5 \times 10 - 3 = \frac{\quad}{\text{C}}$$



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

# COORDINATES- CLUE 2

Locate which letter is at each coordinate listed, and then write that letter in the empty box provided above the coordinate given. Once you have found all of the letters and arranged them into the empty boxes, a clue will be revealed! The first one has been done for you.

10	S	A	W	O	D	I	N	S	H	U	V
9	E	S	D	S	A	C	R	O	S	M	F
8	P	G	T	W	J	S	F	T	L	R	O
7	F	Y	I	A	G	M	H	R	I	P	U
6	Q	T	H	K	O	C	L	A	E	L	F
5	I	B	O	E	G	I	N	P	L	N	J
4	L	U	X	F	N	A	T	M	S	R	O
3	N	E	T	R	U	Z	G	A	I	U	E
2	G	O	G	A	K	E	M	C	O	J	H
1	F	I	D	S	E	T	H	Y	P	N	O
	A	B	C	D	E	F	G	H	I	J	K



T		
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(C,8) (G,1) (K,3)

--	--	--	--	--	--	--	--	--	--	--

(H,8) (J,4) (E,9) (G,10) (I,9) (H,5) (B,2) (J,1) (E,10) (A,9) (D,3)

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(C,7) (F,8)

--	--	--

(E,4) (D,10) (F,1)

--	--

(A,5) (J,5)

--	--	--

(B,6) (G,7) (I,6)

--	--	--	--	--	--

(B,9) (H,2) (K,2) (C,5) (E,6) (A,4)

# MULTIPLYING NUMBERS ENDING IN ZEROES – CLUE 3

Reveal a special message about the space invaders' transponder by completing the multiplication questions below. 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!) The first one has been done for you!

540	7,000

540	50	800	5,000	7,000

			D
5,600	540	800	400

15,000	240	540	15,000

240	5,000

50	2,100	5,600	15,000

800	15,000

4,000	240	5,000	7,000

5,000	12,000	1,600	50	2,100	700	800	7,000	16,000

					D	
2,100	1,500	15,000	5,600	800	400	5,000



$$100 \times 4 = \frac{400}{D}$$

$$100 \times 7 = \frac{\quad}{R}$$

$$10 \times 5 = \frac{\quad}{L}$$

$$2,000 \times 2 = \frac{\quad}{W}$$

$$5,000 \times 3 = \frac{\quad}{T}$$

$$60 \times 9 = \frac{\quad}{A}$$

$$800 \times 2 = \frac{\quad}{P}$$

$$500 \times 10 = \frac{\quad}{E}$$

$$20 \times 40 = \frac{\quad}{I}$$

$$70 \times 100 = \frac{\quad}{N}$$

$$80 \times 70 = \frac{\quad}{S}$$

$$300 \times 40 = \frac{\quad}{X}$$

$$8,000 \times 2 = \frac{\quad}{G}$$

$$50 \times 30 = \frac{\quad}{U}$$

$$6 \times 40 = \frac{\quad}{H}$$

$$700 \times 3 = \frac{\quad}{O}$$

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

# ADDING & SUBTRACTING DECIMALS - CLUE 4

Discover another clue by correctly completing the addition & subtraction algorithms below. Locate your answer at the bottom and see what letter it matches to write in the box. The first one has been done for you!

$$\begin{array}{r} 24.1 \\ + 5.2 \\ \hline 29.3 \\ \hline \end{array}$$

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$$\begin{array}{r} 0.22 \\ + 1.67 \\ \hline \end{array}$$

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$$\begin{array}{r} 2.09 \\ + 4.81 \\ \hline \end{array}$$

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$$\begin{array}{r} 34.4 \\ + 53.2 \\ \hline \end{array}$$

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$$\begin{array}{r} 52.5 \\ - 12.3 \\ \hline \end{array}$$

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$$\begin{array}{r} 30.1 \\ - 26.7 \\ \hline \end{array}$$

--

$$\begin{array}{r} 5.14 \\ + 7.88 \\ \hline \end{array}$$

--

$$\begin{array}{r} 78.6 \\ - 37.8 \\ \hline \end{array}$$

--

$$\begin{array}{r} 63.9 \\ - 11.4 \\ \hline \end{array}$$

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$$\begin{array}{r} 17.4 \\ + 56.7 \\ \hline \end{array}$$

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$$\begin{array}{r} 6.94 \\ + 7.75 \\ \hline \end{array}$$

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$$\begin{array}{r} 7.71 \\ - 5.23 \\ \hline \end{array}$$

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$$\begin{array}{r} 49.1 \\ + 25.6 \\ \hline \end{array}$$

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$$\begin{array}{r} 1.65 \\ + 0.99 \\ \hline \end{array}$$

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$$\begin{array}{r} 87.9 \\ - 4.9 \\ \hline \end{array}$$

--

$$\begin{array}{r} 47.3 \\ - 25.5 \\ \hline \end{array}$$

--

$$\begin{array}{r} 81.8 \\ + 15.3 \\ \hline \end{array}$$

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$$\begin{array}{r} 48.2 \\ - 7.8 \\ \hline \end{array}$$

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$$\begin{array}{r} 3.27 \\ + 9.91 \\ \hline \end{array}$$

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$$\begin{array}{r} 5.79 \\ - 1.36 \\ \hline \end{array}$$

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$$\begin{array}{r} 6.14 \\ + 2.91 \\ \hline \end{array}$$

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$$\begin{array}{r} 37.2 \\ - 15.5 \\ \hline \end{array}$$

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$$\begin{array}{r} 91.4 \\ + 8.9 \\ \hline \end{array}$$

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$$\begin{array}{r} 46.3 \\ - 33.6 \\ \hline \end{array}$$

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The answers are jumbled up below with a letter to help crack the code!

29.3 = I

12.7 = D

13.18 = O

97.1 = K

2.48 = N

40.2 = O

13.02 = N

4.43 = R

52.5 = A

40.8 = E

21.8 = O

83 = O

21.7 = O

40.4 = S

6.9 = S

87.6 = N

1.89 = I

14.69 = A

9.05 = F

100.3 = O

2.64 = B

48 = T

3.4 = T

74.1 = R

74.7 = Y

# COMPARING FRACTIONS – CLUE 5

Crack the code by first looking at each boxed pair of fractions. In each box, cross out the smaller fraction and circle the greater fraction. Keep the letter of the **greater fraction** visible to reveal a helpful clue at the end.

*The first one has been done for you.*

$\frac{3}{4}$	$\frac{1}{5}$
<b>T</b>	<b>I</b>

$\frac{4}{9}$	$\frac{1}{2}$
<b>S</b>	<b>H</b>

$\frac{4}{12}$	$\frac{1}{6}$
<b>E</b>	<b>P</b>

$\frac{5}{8}$	$\frac{9}{10}$
<b>T</b>	<b>D</b>

$\frac{2}{4}$	$\frac{5}{8}$
<b>U</b>	<b>E</b>

$\frac{1}{3}$	$\frac{3}{12}$
<b>V</b>	<b>T</b>

$\frac{2}{3}$	$\frac{7}{8}$
<b>E</b>	<b>I</b>

$\frac{5}{11}$	$\frac{3}{6}$
<b>A</b>	<b>C</b>

$\frac{4}{5}$	$\frac{2}{3}$
<b>E</b>	<b>T</b>

$\frac{2}{8}$	$\frac{5}{7}$
<b>R</b>	<b>I</b>

$\frac{1}{8}$	$\frac{1}{2}$
<b>A</b>	<b>S</b>

$\frac{8}{9}$	$\frac{4}{11}$
<b>I</b>	<b>T</b>

$\frac{7}{10}$	$\frac{1}{4}$
<b>N</b>	<b>T</b>

$\frac{1}{5}$	$\frac{1}{12}$
<b>T</b>	<b>H</b>

$\frac{6}{9}$	$\frac{1}{3}$
<b>H</b>	<b>I</b>

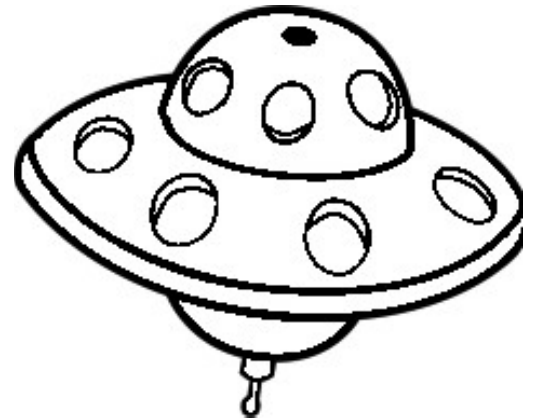
$\frac{4}{10}$	$\frac{1}{2}$
<b>N</b>	<b>E</b>

$\frac{2}{3}$	$\frac{9}{10}$
<b>W</b>	<b>E</b>

$\frac{1}{6}$	$\frac{1}{7}$
<b>A</b>	<b>E</b>

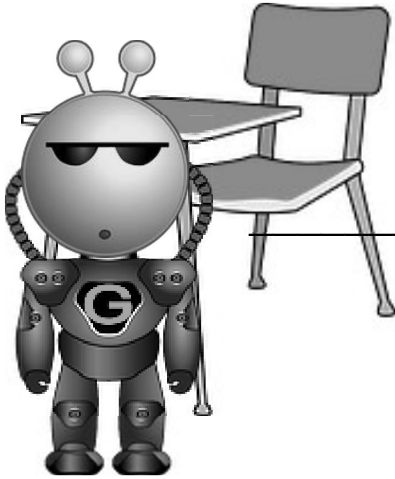
$\frac{3}{6}$	$\frac{1}{4}$
<b>S</b>	<b>W</b>

$\frac{11}{12}$	$\frac{6}{9}$
<b>T</b>	<b>E</b>



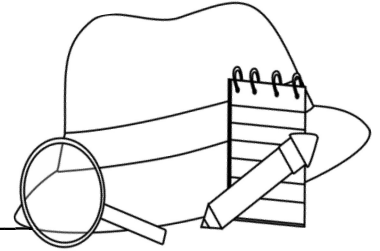


# SOLVE THE MYSTERY: WHERE IS THE SCHOOL INVADERS' TRANSPONDER LOCATED?



Detective

(your name)



Has discovered that the school invaders'  
transponder is located at:

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## Clues Checklist:

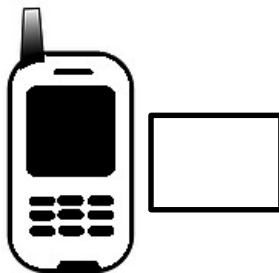
Clue 1

Clue 2

Clue 3

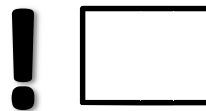
Clue 4

Clue 5



## Teacher to check and tick

Well done you have found the transponder and helped the school get rid of the slimy and smelly invaders!



Oops! No that is not where the transponder is. Go over, check your clues and try again.