

# WHAT IS THIS?

**solve the mystery**  
The Case of the Missing Astronaut

**Clue #1: Picture Decoder**  
Write the answer on each line. Then, draw a line to each match.  
Last, use the decoder at the bottom to solve the clue.

**Clue #2: Right or Wrong?**  
There are 8 astronauts. Each astronaut will travel 267 miles. How far will the astronauts travel altogether?  
There are 5 spaceships. Each spaceship will use 394 tanks of fuel. How many tanks of fuel will be used altogether?  
There are 9 astronauts. Each astronaut will eat 135 packs of astronaut ice cream. How many packs will be eaten in all?

**Clue #3: Detective Report**  
The astronaut had spent  $524 \times 7 = 3668$  days in space so far. She was ready to reach her next planet, which was  $9 \times 327 = 2943$  lightyears away. Her spaceship was only traveling  $8 \times 932 = 7456$  kilometers per hour right now.  
The astronaut had spent  $524 \times 7 = 3668$  days in space so far. She was ready to reach her next planet, which was  $9 \times 327 = 2943$  lightyears away. Her spaceship was only traveling  $8 \times 932 = 7456$  kilometers per hour right now.

**Clue #4: The Spaceship**  
First, write the answer in each box on the spaceship. Then, read what to do in the box at the bottom.

$3 \times 415$	$2 \times 579$	$8 \times 512$	$4 \times 635$
$12 \times 4$	$1158$	$4761$	$2540$

**Clue #5: Planet Sort**  
Write the answer on each planet. Then, color the planet the same color as the star it goes with. Then, look at the keys at the bottom to solve the clue.

blue 0-1,000	yellow 1,001-2,000	green 2,001-3,000	red 3,001-4,000	
$6 \times 587$	$2 \times 429$	$3 \times 932$	$5 \times 521$	$3 \times 429$
$3,527$	$858$	$2,794$	$2,605$	$1,287$
$4 \times 632$	$5 \times 232$	$4 \times 212$	$3 \times 587$	$9 \times 343$
$2,528$	$1,100$	$848$	$1,761$	$3,087$

Now, find the correct key to solve the clue!

Cross out Saturn if this is true: • 3 blue planets • 2 yellow planets • 1 green planet • 4 red planets	Cross out Neptune if this is true: • 2 blue planets • 3 yellow planets • 3 green planets • 4 red planets	Cross out Jupiter if this is true: • 3 blue planets • 4 yellow planets • 1 green planet • 2 red planets	Cross out Mars if this is true: • 2 blue planets • 3 yellow planets • 3 green planets • 2 red planets
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**Where Did the Astronaut Go?**  
Cross out each planet as you solve each clue.

I have 0 moons. <del>Mercury</del>	I have 0 moons. <del>Venus</del>	I have 1 moon. <del>Earth</del>	I have 2 moons. <del>Mars</del>
I have 79 moons. Jupiter	I have 82 moons. <del>Saturn</del>	I have 27 moons. <del>Uranus</del>	I have 14 moons. <del>Neptune</del>

Students complete a series of clues to figure out where the missing astronaut is!

# HOW TO PLAY



## What Happened?

The astronaut went on a secret mission to another planet, and it's your job to figure out which planet he traveled to. Solve each clue to figure out the mystery. Every time you solve a clue, you will get closer to discovering which planet the astronaut landed on. Cross out the places the astronaut is not located each time you solve a clue. Good luck!

## Clue #1: Picture Decoder

Write the answer on each line. Then, draw a line to each match. Last, use the decoder at the bottom to solve the clue.

1,956	2,815	1,732	1,935	2,317	4,290	2,768	4,902	3,910
Answers: <u>4290</u>	<u>1732</u>	<u>4902</u>	<u>1956</u>	<u>2317</u>	<u>2815</u>	<u>1935</u>	<u>3110</u>	<u>2768</u>
6x715	4x433	6x817	2x978	7x331	5x563	3x645	5x782	8x346

Letters: O U R P L A N E T

The astronaut is not on...

A =	G =	M =	S =	Y =
B =	H =	N =	T =	Z =
C =	I =	O =	U =	V =
D =	J =	P =	W =	X =
E =	K =	Q =		
F =	L =	R =		

## Where Did the Astronaut Go?

Cross out each planet as you solve each clue.

 I have 0 moons. <del>Mercury</del>	 I have 0 moons. <del>Venus</del>	 I have 1 moon. <del>Earth</del>	 I have 2 moons. <del>Mars</del>
 I have 79 moons. Jupiter	 I have 82 moons. <del>Saturn</del>	 I have 27 moons. <del>Uranus</del>	 I have 14 moons. <del>Neptune</del>

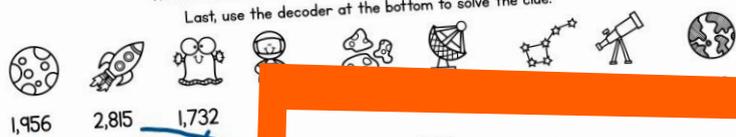
Name: \_\_\_\_\_

Each time students solve a clue, it will reveal what planet(s) to cross out. When all clues are completed, the mystery of the missing astronaut will be solved!

# SKILL PRACTICE

## Clue #1: Picture Decoder

Write the answer on each line. Then, draw a line to each match.  
Last, use the decoder at the bottom to solve the clue.



Answers:  $\frac{4290}{6 \times 715}$   $\frac{1732}{4 \times 433}$   $\frac{49}{6}$

Letters: 0 4

The astronaut is not on...

Use this decoder to help you figure out what letter is equal to each picture.

## Clue #3: Detective Report

pent  $\frac{3668}{524 \times 7}$  days in space so far. She was ready to reach her next planet, lightyears away. Her space...

traveling  $\frac{7456}{8 \times 932}$  kilometers per

er planets. One planet had  $\frac{5348}{7 \times 764}$  rings around it,

the next planet would look like, and

5,432=H	1,743=E	3,668=M
7,456=O	2,830=0	1,788=A
2,125=D	3,625=K	3,453=Q
1,387=P	4,982=C	2,872=L
298=N	2,167=T	1,297=I
422=Y	5,348=0	3,323=F
943=S	2,984=Z	4,755=X
176=B	1,242=G	1,488=N
583=V	2,254=J	2,173=U

## Clue #2: Right or Wrong?

There are 8 astronauts. Each astronaut will travel 267 miles. How far will the astronauts travel altogether?

$2,136$

There are 5 spaceships. Each spaceship will use 319 tanks of fuel. How many tanks of fuel will be used altogether?

$1,595$

There are 9 astronauts. Each astronaut will eat 135 packs of astronaut ice cream. How many packs will be eaten in all?

$1,213$

There are 6 rockets in space. Each rocket will use 752 gallons of fuel. How many gallons of fuel will be used in all?

$4,502$

The astronomer found 4 new galaxies. Every galaxy had 577 stars. How many stars are there altogether?

$2,308$

There are 4 scientists. Each scientist collected 321 pieces of meteor rock. How many pieces of meteor rock are there altogether?

$1,285$

There are 5 aliens. Each alien has flown 892 miles in their flying saucers. How many miles have they flown altogether?

$4,460$

There are 8 scientists building the rocket. Each scientist will work on the rocket for 582 hours. How many hours will they have worked in all?

$4,656$

There are 3 control panels on the spaceship. Each panel has 421 buttons. How many buttons are there in all?

$1,263$

In each box, color a thumbs up or a thumbs down to show if the equation and answer are correct.

How many answers were correct?

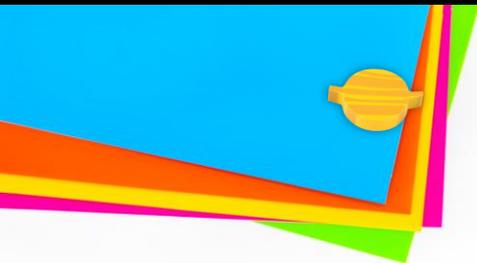
1 Correct = Cross out Saturn.  
2 Correct = Cross out Venus.  
3 Correct = Cross out Earth.  
4 Correct = Cross out Mars.

5 Correct = Cross out Jupiter.  
6 Correct = Cross out Neptune.  
7 Correct = Cross out Uranus.  
8 Correct = Cross out Mercury.

- Multiplication Equations
- Word Problems
- Space-Themed
- Error Analysis Practice

**All clues focus on 1 by 3 digit multiplication!**

# MULTIPLE VERSIONS



## Clue #1: Picture Decoder

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## Clue #2: Right or Wrong?

There are 8 astronauts. Each astronaut will travel 267 miles. How far will they travel?

## Clue #3: Detective Report

The astronaut had spent  $524 \times 7$  days in space so far. She was ready to reach her next planet, which was  $9 \times 327$  lightyears away. Her spaceship was only traveling  $8 \times 932$  kilometers per hour right now.

# 3 Clue Version

The astronaut did not go to a planet with:  
 [488] [7456] [345] [5248] [2430] [1299] [2442]  
 N O M O O N S  
 Write each answer above each blank. Then, use the decoder to figure out the message.

## Clue #1: Picture Decoder

Write the answer on each line. Then, draw a line to each match. Last, use the decoder at the bottom to solve the clue.

## Clue #2: Right or Wrong?

There are 8 astronauts. Each astronaut will travel 267 miles. How far will they travel?

## Clue #3: Detective Report

The astronaut had spent  $3668$  days in space so far. She was ready to reach her next planet, which was  $524 \times 7$  lightyears away. Her spaceship was only traveling  $8 \times 932$  kilometers per hour right now.

## Clue #4: The Spaceship

First, write the answer in each box on the spaceship.

## Clue #5: Planet Sort

Write the answer on each planet. Then, color the planet the same color as the star it goes with. Then, look at the key at the bottom to solve the clue.

blue 0-1,000	yellow 1,001-2,000	green 2,001-3,000	red 3,001-4,000
6x587	3,528	4x632	2,528
3x429	1,160	2,987	848
9x343	1,761	3,087	

- |   |   |  |  |
|---|---|--|--|
| <p>Circle out Saturn if this is true:</p> <ul style="list-style-type: none"> <li>3 blue planets</li> <li>2 yellow planets</li> <li>1 green planet</li> <li>4 red planets</li> </ul> | <p>Circle out Neptune if this is true:</p> <ul style="list-style-type: none"> <li>2 blue planets</li> <li>3 yellow planets</li> <li>3 green planets</li> <li>4 red planets</li> </ul> | <p>Circle out Jupiter if this is true:</p> <ul style="list-style-type: none"> <li>3 blue planets</li> <li>4 yellow planets</li> <li>1 green planet</li> <li>2 red planets</li> </ul> | <p>Circle out Mars if this is true:</p> <ul style="list-style-type: none"> <li>2 blue planets</li> <li>3 yellow planets</li> <li>3 green planets</li> <li>2 red planets</li> </ul> |
|---|---|--|--|

# Print & Digital Forms

## Clue #1: Picture Decoder

Write the answer on each line. Then, draw a line to each match. Last, use the decoder at the bottom to solve the clue.

1,956	2,815	1,732	1,935	2,317	4,290	2,768	4,902	3,910
6x715	4x433	6x817	2x978	7x331	5x563	3x645	5x782	8x346

Answers:  $4290$   $1732$   $4902$   $1956$   $2317$   $2815$   $1935$

Letters: O U R P L A N

The astronaut is not on...

A = 🌿	G = 🌿	M = 🌿	S = 🌙	Y = 🌿
B = 🌟	H = 🌟	N = 🌟	T = 🌟	Z = 🌟
C = 🌠	I = 🌠	O = 🌠	U = 🌠	
D = 🌠	J = 🌠	P = 🌠	V = 🌠	
E = 🌠	K = 🌠	Q = 🌠	W = 🌠	
F = 🌠	L = 🌠	R = 🌠	X = 🌠	

Use this decoder to help you figure out what letter is equal to each picture.

## Clue #1: Picture Decoder

Write the answer on each line. Then, draw a line to each match. Last, use the decoder at the bottom to solve the clue.

1,956	2,815	1,732	1,935	2,317	4,290	2,768	4,902	3,910
6x715	4x433	6x817	2x978	7x331	5x563	3x645	5x782	8x346

Answers:  $4290$

Letters: O

The astronaut is not on...

A = 🌿	G = 🌿	M = 🌿	S = 🌙	Y = 🌿
B = 🌟	H = 🌟	N = 🌟	T = 🌟	Z = 🌟
C = 🌠	I = 🌠	O = 🌠	U = 🌠	
D = 🌠	J = 🌠	P = 🌠	V = 🌠	
E = 🌠	K = 🌠	Q = 🌠	W = 🌠	
F = 🌠	L = 🌠	R = 🌠	X = 🌠	

Use this decoder to help you figure out what letter is equal to each picture.

# Short & Long Options

# 2 MATH FACT OPTIONS!



### Where Did the Astronaut Go?

Cross out each planet as you solve each clue.

<del>I have 0 moons.</del>  <b>Mercury</b>	<del>I have 0 moons.</del>  <b>Venus</b>	<del>I have 1 moon.</del>  <b>Earth</b>	<del>I have 2 moons.</del>  <b>Mars</b>
I have 79 moons.  <b>Jupiter</b>	<del>I have 82 moons.</del>  <b>Saturn</b>	<del>I have 27 moons.</del>  <b>Uranus</b>	<del>I have 14 moons.</del>  <b>Neptune</b>

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

### Clue #1: Picture Decoder

Find each answer. Then, draw a line to each match. Last, use the decoder at the bottom to solve the picture.



Answers:  $12 \div 7$     $8 \times 6$     $11 \div 7$     $7 \times 3$     $9 \times 8$     $2 \times 3$     $5 \times 4$     $8 \times 6$

Letters: \_\_\_\_\_

The culprit has...

### Clue #2: Error Analysis

Check each suspect's work. Decide if each comparison symbol is correct. Put a check or an X next to each answer.

 <b>Darius</b>	 <b>Destiny</b>	 <b>Nora</b>
<input type="checkbox"/> $15 - 7 = 8$	<input type="checkbox"/> $14 - 9 = 5$	<input type="checkbox"/> $20 - 6 = 13$
<input type="checkbox"/> $9 - 4 = 5$	<input type="checkbox"/> $12 - 5 = 8$	<input type="checkbox"/> $16 - 7 = 9$
<input type="checkbox"/> $19 - 10 = 9$	<input type="checkbox"/> $20 - 8 = 12$	<input type="checkbox"/> $8 - 3 = 5$
<input type="checkbox"/> $16 - 8 = 7$	<input type="checkbox"/> $10 - 4 = 5$	<input type="checkbox"/> $12 - 8 = 4$

### Clue #3: Detective Report

I have  $20 - 5$  pencils in my desk. I walked over to my friend's desk, and she had  $19 - 2$  pencils in her desk. She told me that she had  $15 - 3$  more pencils at home. I only have  $10 - 6$  pencils at home. When I asked my other friend how many pencils he had in his desk, he only had  $9 - 4$  of my pencils in my desk. Then I asked my teacher how many pencils she had. She told me she had  $14 - 5$  pencils in her desk and  $3 - 1$  at home. Then she found  $14 - 4$  more pencils in her desk! When I go to the store next, I think I'll buy  $6$  pencils so I'll have even more than my teacher.

1=A	10=E	19=Z
2=S	11=J	20=Y
3=G	12=N	21=L
4=D	13=U	22=F
5=O	14=X	23=P
	15=Q	24=I
	16=B	25=M
	17=R	26=V
	18=W	

### Clue #4: The School Bus

Write the answer to each question in each box.

$60 \div 5 =$	$24 \div 3 =$	$49 \div 7 =$	$55 \div 11 =$	$70 \div 7 =$	$48 \div 12 =$
J	G	B	T	R	L
$15 \div 5 =$	$66 \div 11 =$	$12 \div 6 =$	$56 \div 7 =$	$10 \div 10 =$	$35 \div 5 =$
E	U	E	N	X	D

Directions: First, write the answer on each window of the bus. Then, read what to do in the box at the bottom.

Cross out the boxes with the following answers: **5, 1, 7, 6, 12, 4**

The culprit is not wearing \_\_\_\_\_.

### Clue #5: Picture Reveal

Is each equation true or false? Put a T for true and an F for false.

 $50 \div 5 = 10$	 $2 \times 7 = 13$	 $18 \div 3 = 7$	 $12 \times 6 = 72$	 $45 \div 9 = 4$	 $7 \times 5 = 35$
 $21 \div 7 = 3$	 $8 \times 7 = 54$	 $60 \div 12 = 6$	 $9 \times 7 = 54$	 $32 \div 8 = 4$	 $6 \times 5 = 25$

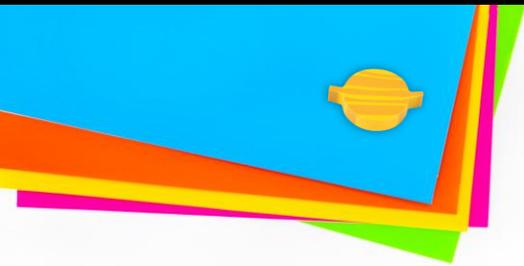
Are there more true or false equations?

There are more true equations: The culprit is not wearing blue.  
 There are more false equations: The culprit is not wearing a hat.  
 There are the same amount of true and false equations: The culprit is wearing a hat.  
 There is no way to tell if there are more true or false equations: The culprit is a girl.

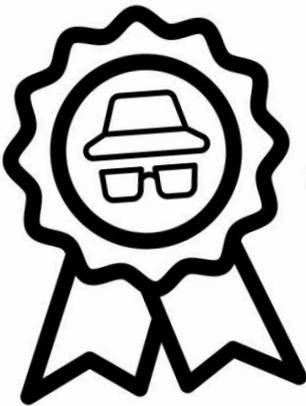
Same clues. Same mystery. Different math!

Use the add/subtract facts to 20 mystery or the multiplication/division facts 1-12 mystery!

# FAST FINISHER ACTIVITY



**The Detective Agency sends congratulations to:**



*Lindsay*

**You solved the mystery!**

*11/2* **Date**      *AW* **Presented by:**

THE LIFETIME LEARNER

**LET'S DRAW...**  
**an earth**

1	2	3
4	5	6

**Color It!**



THE LIFETIME LEARNER

**LET'S DRAW...**  
**a UFO**

1	2	3
4	5	6



THE LIFETIME LEARNER

If students finish early, give them a **certificate of completion** and a **directed drawing** to complete while others continue working.

# MATH MYSTERY BENEFITS

- No Prep
- Print and Digital Versions
- 3 & 5 Clue Options
- Extra Math Facts Mystery
- Fun and Engaging
- Easy to Differentiate
- Encourages Critical Thinking
- Aligns with Math Standards
- Perfect for Review Days

### Clue #4: The Spaceship

First, write the answer in each box on the space ship. Then, read what to do in the box at the bottom.

$3 \times 415$ <del>1245</del> J	$2 \times 579$ <del>1158</del> A	$8 \times 512$ <del>4096</del> L	$4 \times 635$ 2540 R
$7 \times 564$ 3948 I	$5 \times 931$ <del>4655</del> S	$7 \times 463$ <del>3241</del> P	$9 \times 342$ <del>3078</del> F
$2 \times 855$ <del>1710</del> E	$6 \times 328$ <del>1968</del> W	$9 \times 578$ 5202 N	$7 \times 236$ 1652 G

Cross out the boxes with the following answers:

• 1158	• 3241	• 1245
• 4096	• 3078	• 1968
• 4655	• 1710	

The letters that are left will reveal a message.

The planet does not have a  
Ring

THE LIFETIME LEARNER

In 4<sup>th</sup> grade, this works well in small groups or in partners.

# WHY TEACHERS LOVE THESE!

Ordinary math worksheets can be boring and unoriginal.

You want activities that are fun and engaging, but also rigorous and meaningful to student learning.

**MATH MYSTERIES ARE EXACTLY WHAT YOU'VE BEEN LOOKING FOR!**

**Clue #1: Picture Decoder**  
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**Clue #2: Right or Wrong?**  
There are 8 astronauts. Each astronaut will travel 267 miles. How far will the astronauts travel altogether?  
 $2,136$

There are 5 spaceships. Each spaceship will use 391 tanks of fuel. How many tanks of fuel will be used altogether?  
 $1,595$

There are 9 astronauts. Each astronaut will eat 135 packs of astronaut ice cream. How many packs will be eaten in all?  
 $1,213$

**Clue #3: Detective Report**  
The astronaut had spent  $\underline{\quad} + 4 = 12$  days in space so far. She was ready to reach her next planet.

**Clue #4: The Spaceship**  
First, write the answer in each box on the space ship. Then, read what to do in the box at the bottom.

**Clue #5: Planet Sort**  
Write the answer on each planet. Then, color the planet the same color as the star it goes with. Then, look at the keys at the bottom to solve the clue.

$6 \times 587$ $3,522$	$2 \times 429$ $858$	$3 \times 932$ $2,796$	$5 \times 521$ $2,605$	$3 \times 429$ $1,287$
$4 \times 632$ $2,528$	$5 \times 232$ $1,160$	$4 \times 212$ $848$	$3 \times 587$ $1,761$	$9 \times 343$ $3,087$

Now, find the correct key to solve the clue!

<b>Cross out Saturn</b> if this is true: • 3 blue planets • 2 yellow planets • 1 green planet • 4 red planets	<b>Cross out Neptune</b> if this is true: • 2 blue planets • 3 yellow planets • 3 green planets • 4 red planets	<b>Cross out Jupiter</b> if this is true: • 3 blue planets • 4 yellow planets • 1 green planet • 2 red planets	<b>Cross out Mars</b> if this is true: • 2 blue planets • 3 yellow planets • 3 green planets • 2 red planets
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The Detective Agency sends congratulations to:

**Lindsay**

You solved the mystery!

$11/2$  *SW*

Date Presented by:

LET'S DRAW...  
an earth

1 2 3  
4 5 6 Color It!

LET'S DRAW...  
a UFO

1 2 3  
4 5 6

Where Did the Astronaut Go?

Cross out each planet as you solve each clue.

<del>I have 0 moons.</del> <del>Mercury</del>	<del>I have 0 moons.</del> <del>Venus</del>	<del>I have 1 moon.</del> <del>Earth</del>	<del>I have 2 moons.</del> <del>Mars</del>
<b>I have 79 moons.</b> <b>Jupiter</b>	<del>I have 82 moons.</del> <del>Saturn</del>	<del>I have 27 moons.</del> <del>Uranus</del>	<del>I have 14 moons.</del> <del>Neptune</del>

Name:

**solve the mystery**

The Case of the Missing Astronaut

# WHAT MAKES MATH MYSTERIES UNIQUE?

Math Mysteries aren't just a copy of Reading Mysteries!

They have brand-new clues, focus on math skills, and even feature a different conclusion to the mystery.

The only thing that stays the same is the list of suspects students start with!

So, if you have both, students can play during math and then again during reading for double the fun.

Reading

**Clue #1: Find It!**

Circle the boxes where the part of speech has been identified correctly. Cross out the wrong boxes. Then, read the words at the TOP of the boxes you circled from left to right like a book to solve the clue.

<b>not</b>	<b>noun</b>	<b>a</b>	<b>place</b>
<b>with</b>	<b>more</b>	<b>noun</b>	<b>79</b>
<b>than</b>	<b>50</b>	<b>moons</b>	<b>noun</b>

Write the phrase on the line. Cross the wrong planets off your list.

*not a place with more than 50 moons*

Example of Clue 1

Math

**Clue #1: Picture Decoder**

Write the answer on each line. Then, draw a line to each match. Last, use the decoder at the bottom to solve the clue.

1,956	2,815	1,732	1,935	2,317	4,290	2,768	4,902	3,910
6x715	4x433	6x817	2x978	7x331	5x563	3x645	5x782	8x346

s: 4290 1732 4902 1956 2317 2815 1935 310 2768

s: O U R P L A N E T

The astronaut is not on...

Use this decoder to help you figure out what letter is equal to each picture.

# KEEP THE FUN GOING!

## GRAB A **READING MYSTERY**:

Reading mysteries aren't just a copy of math. They come with fresh clues, unique reading challenges, and a new culprit, so students are solving an entirely different case!



## MORE **MATH MYSTERIES**:

Explore other grade levels to differentiate and keep every student engaged.



BUY A BUNDLE  
TO **SAVE BIG!**

