



The Cosmic Map Mystery

Grade 3 math · Addition, Subtraction, Multiplication, Rounding, Division · Reading level grades 3-4

Detective: _____ **Date:** _____

A strange silver flying saucer landed right on the roof of the Stargazer Ridge Observatory! A rogue alien slipped inside and took the Golden Star Map. We need to find the alien who did it before they escape to the edge of the galaxy!

1. Solve each math problem. The answer is a number, and the letter beside it is what that number stands for.
2. In the clue boxes, write that letter in every box showing the same number, then read the secret clue.
3. Use each clue to cross suspects off the list. The one suspect left at the end is the culprit!

My answer: the rogue alien is _____

Possible suspects

Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	COSMIC GADGET	SPACESHIP UPGRADE	COMMUNICATOR SIDE	SPACESUIT HELMET COLOR	STELLAR WEAKNESS
Mae	magnetic glove	solar sails	right arm communicator	deep purple helmet	cosmic static
Leo	freeze ray	warp drive	right arm communicator	deep purple helmet	cosmic static
Neil	magnetic glove	warp drive	left arm communicator	deep purple helmet	cosmic static
Halley	freeze ray	force field	right arm communicator	deep purple helmet	cosmic static
Apollo	plasma blaster	warp drive	right arm communicator	deep purple helmet	bright starlight
Zenith	gravity boots	force field	right arm communicator	deep purple helmet	cosmic static
Carl	magnetic glove	force field	left arm communicator	neon green helmet	space dust
Isaac	freeze ray	force field	right arm communicator	deep purple helmet	space dust
Comet	plasma blaster	stealth cloak	left arm communicator	neon green helmet	space dust
Draco	magnetic glove	warp drive	right arm communicator	neon green helmet	space dust
Stella	freeze ray	force field	left arm communicator	bright orange helmet	cosmic static
Galileo	laser pointer	force field	left arm communicator	bright orange helmet	cosmic static
Hubble	magnetic glove	stealth cloak	left arm communicator	neon green helmet	bright starlight
Yuri	plasma blaster	stealth cloak	left arm communicator	deep purple helmet	space dust
Kepler	gravity boots	force field	right arm communicator	neon green helmet	space dust
Rigel	magnetic glove	stealth cloak	right arm communicator	neon green helmet	bright starlight
Vega	gravity boots	stealth cloak	right arm communicator	deep purple helmet	cosmic static
Orion	plasma blaster	force field	right arm communicator	neon green helmet	cosmic static
Sally	magnetic glove	stealth cloak	right arm communicator	bright orange helmet	cosmic static
Buzz	freeze ray	rocket thrusters	left arm communicator	bright orange helmet	cosmic static
Nova	freeze ray	warp drive	left arm communicator	neon green helmet	bright starlight

CLUE 1

To read the first clue, we must tally up the star maps on the desk. Let us add the maps found in the main office to the ones in the observatory dome.

Solve each problem, then write its letter in every clue box that shows the same number.

Diagram illustrating the sequence of numbers and the placement of 'T' markers across two rows of boxes.

Row 1 (Top):

- Box 1: 918 (T)
- Box 2: 905
- Box 3: 576
- Box 4: 514
- Box 5: 248
- Box 6: 255
- Box 7: 576
- Box 8: 830
- Box 9: 633
- Box 10: 888
- Box 11: 576
- Box 12: 435
- Box 13: 830
- Box 14: 888
- Box 15: 918 (T)
- Box 16: 628
- Box 17: 435
- Box 18: 576
- Box 19: 514

Row 2 (Bottom):

- Box 1: 435
- Box 2: 918 (T)
- Box 3: 576
- Box 4: 514
- Box 5: 248
- Box 6: 918 (T)
- Box 7: 905
- Box 8: 419
- Box 9: 248
- Box 10: 888
- Box 11: 514
- Box 12: 942

$$431 + 487 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$287 + 601 = \boxed{} \rightarrow \boxed{\bigcirc}$$

$99 + 156 = \square \rightarrow \boxed{\text{I}}$

$$309 + 324 = \boxed{} \rightarrow \boxed{\text{D}}$$

$350 + 592 = \boxed{} \rightarrow \boxed{\text{K}}$

$$301 + 213 = \boxed{} \rightarrow \boxed{\text{A}}$$

$$87 + 161 = \boxed{} \rightarrow \boxed{\text{L}}$$

$$457 + 448 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$286 + 133 = \boxed{} \rightarrow \boxed{\text{C}}$$

$$372 + 256 = \boxed{} \rightarrow \boxed{\text{U}}$$

$$138 + 297 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$385 + 191 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$573 + 257 = \boxed{} \rightarrow \boxed{\text{N}}$$

Scratch space:

CLUE 2 Subtraction

A few space fuel canisters are missing from the launch pad storage box. Subtract the leftover canisters from the total to see how many the thief stole.

Solve each problem, then write its letter in every clue box that shows the same number.

T																			T
441	563	107	394	335	244	107	120	120	563	426	879	445	720	145	673	563	441		

												T		
445	720	636	394	426	636	636	244	787	145	394	445	441	426	720

$$817 - 376 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$830 - 194 = \boxed{} \rightarrow \boxed{\text{M}}$$

$$763 - 90 = \boxed{} \rightarrow \boxed{\text{G}}$$

$$875 - 155 = \boxed{} \rightarrow \boxed{\text{R}}$$

$$595 - 32 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$1054 - 267 = \boxed{} \rightarrow \boxed{\text{N}}$$

$$219 - 74 = \boxed{} \rightarrow \boxed{\text{I}}$$

$$705 - 260 = \boxed{} \rightarrow \boxed{\text{A}}$$

$$562 - 136 = \boxed{} \rightarrow \boxed{\text{O}}$$

$$157 - 37 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$626 - 291 = \boxed{} \rightarrow \boxed{\text{L}}$$

$$600 - 356 = \boxed{} \rightarrow \boxed{\text{U}}$$

$$231 - 124 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$1254 - 375 = \boxed{} \rightarrow \boxed{\text{W}}$$

$$683 - 289 = \boxed{} \rightarrow \boxed{\text{C}}$$

Scratch space:

CLUE 3

We need to check the grid of solar panels on the roof. Multiply the rows of panels by the columns to count how many were turned off by the intruder.

Solve each problem, then write its letter in every clue box that shows the same number.

11 72 25 88 8 99 25 55 24 88 55 55 28 11 56 11 88 55 10 24 28 56 81 99 24 56 11 88 11 99 24

$$1 \times 11 = \boxed{} \rightarrow \boxed{\mathbf{T}}$$

$11 \times 8 = \boxed{} \rightarrow \mathbf{A}$

$$10 \times 1 = \boxed{} \rightarrow \mathbf{D}$$

$9 \times 8 =$ $\rightarrow$ **H**

$11 \times 5 = \boxed{} \rightarrow \boxed{\text{N}}$

$$4 \times 7 = \boxed{} \rightarrow \boxed{0}$$

$$8 \times 1 = \boxed{} \rightarrow \boxed{\text{L}}$$

$12 \times 2 = \boxed{} \rightarrow \boxed{\text{C}}$

$$7 \times 8 = \boxed{} \rightarrow \boxed{\mathbf{S}}$$

$$9 \times 11 = \boxed{} \rightarrow \boxed{}$$

$9 \times 9 =$ $\rightarrow$ **M**

$5 \times 5 =$ $\rightarrow$ **E**

Scratch space:

CLUE 4 Rounding

The radar screen is glitching and only shows rounded numbers. Round the fuzzy distance of the flying saucer to the nearest ten to unlock this clue.

Solve each problem, then write its letter in every clue box that shows the same number.

W																		
200	600	400	3000	70	50	60	90	900	600	800	40	90	3000	400	60	600	600	900
900	70	500	900	6000	600	900	9000	2000	50	8000								

Round 189 to the nearest hundred → **W**

Round 2,440 to the nearest thousand → **I**

Round 790 to the nearest hundred → **C**

Round 91 to the nearest ten → **S**

Round 42 to the nearest ten → **K**

Round 566 to the nearest hundred → **E**

Round 62 to the nearest ten → **D**

Round 52 to the nearest ten → **N**

Round 6,398 to the nearest thousand → **L**

Round 2,805 to the nearest thousand → **O**

Round 9,446 to the nearest thousand → **A**

Round 456 to the nearest hundred → **R**

Round 8,094 to the nearest thousand → **T**

Round 874 to the nearest hundred → **P**

Round 68 to the nearest ten → **U**

Round 353 to the nearest hundred → **F**

Scratch space:

CLUE 5**Division facts (1-12) - the last clue**

The space crew has to split the signal analyzers equally among their scout teams. Divide the analyzers to find how many each team gets.

First solve each problem. Then find each answer in the numbered list below and cross that sentence out. One sentence will be left - that is exactly what the villain did!

Step 1 - solve these:

$2 \div 2 = \boxed{}$

$42 \div 7 = \boxed{}$

$72 \div 9 = \boxed{}$

$18 \div 2 = \boxed{}$

$55 \div 5 = \boxed{}$

$25 \div 5 = \boxed{}$

$20 \div 2 = \boxed{}$

$12 \div 1 = \boxed{}$

$33 \div 11 = \boxed{}$

$14 \div 7 = \boxed{}$

$28 \div 4 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain scrambled the security codes, then zipped past the asteroid belt.
2. The villain zapped the main vault door, then blasted off into deep space.
3. The villain scrambled the security codes, then zoomed away in a flying saucer.
4. The villain scrambled the security codes, then fled towards the moon.
5. The villain floated through the skylight, then blasted off into deep space.
6. The villain floated through the skylight, then zipped past the asteroid belt.
7. The villain zapped the main vault door, then zipped past the asteroid belt.
8. The villain hovered over the laser grid, then escaped into a wormhole.
9. The villain zapped the main vault door, then fled towards the moon.
10. The villain teleported past the cameras, then fled towards the moon.
11. The villain teleported past the cameras, then zipped past the asteroid belt.
12. The villain hovered over the laser grid, then blasted off into deep space.

Answer Key

The Cosmic Map Mystery

Culprit: Leo

freeze ray · warp drive · right arm communicator · deep purple helmet · cosmic static

Trail: Start 21 → Clue 1 15 → Clue 2 9 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE ALIEN DOES NOT USE A STEALTH CLOAK"

$431 + 487 = 918$ (T) · $287 + 601 = 888$ (O) · $99 + 156 = 255$ (I) · $309 + 324 = 633$ (D) · $350 + 592 = 942$ (K) · $301 + 213 = 514$ (A) · $87 + 161 = 248$ (L) · $457 + 448 = 905$ (H) · $286 + 133 = 419$ (C) · $372 + 256 = 628$ (U) · $138 + 297 = 435$ (S) · $385 + 191 = 576$ (E) · $573 + 257 = 830$ (N)

Clue 2 (Subtraction): "THE CLUES SHOW A RIGHT ARM COMMUNICATOR"

$817 - 376 = 441$ (T) · $830 - 194 = 636$ (M) · $763 - 90 = 673$ (G) · $875 - 155 = 720$ (R) · $595 - 32 = 563$ (H) · $1054 - 267 = 787$ (N) · $219 - 74 = 145$ (I) · $705 - 260 = 445$ (A) · $562 - 136 = 426$ (O) · $157 - 37 = 120$ (S) · $626 - 291 = 335$ (L) · $600 - 356 = 244$ (U) · $231 - 124 = 107$ (E) · $1254 - 375 = 879$ (W) · $683 - 289 = 394$ (C)

Clue 3 (Multiplication facts (1-12)): "THE ALIEN CANNOT STAND COSMIC STATIC"

$1 \times 11 = 11$ (T) · $11 \times 8 = 88$ (A) · $10 \times 1 = 10$ (D) · $9 \times 8 = 72$ (H) · $11 \times 5 = 55$ (N) · $4 \times 7 = 28$ (O) · $8 \times 1 = 8$ (L) · $12 \times 2 = 24$ (C) · $7 \times 8 = 56$ (S) · $9 \times 11 = 99$ (I) · $9 \times 9 = 81$ (M) · $5 \times 5 = 25$ (E)

Clue 4 (Rounding): "WE FOUND SPECKS OF DEEP PURPLE PAINT"

Round 189 to the nearest hundred = 200 (W) · Round 2,440 to the nearest thousand = 2000 (I) · Round 790 to the nearest hundred = 800 (C) · Round 91 to the nearest ten = 90 (S) · Round 42 to the nearest ten = 40 (K) · Round 566 to the nearest hundred = 600 (E) · Round 62 to the nearest ten = 60 (D) · Round 52 to the nearest ten = 50 (N) · Round 6,398 to the nearest thousand = 6000 (L) · Round 2,805 to the nearest thousand = 3000 (O) · Round 9,446 to the nearest thousand = 9000 (A) · Round 456 to the nearest hundred = 500 (R) · Round 8,094 to the nearest thousand = 8000 (T) · Round 874 to the nearest hundred = 900 (P) · Round 68 to the nearest ten = 70 (U) · Round 353 to the nearest hundred = 400 (F)

Clue 5 (Division facts (1-12)): surviving statement is box 4 → Leo

$2 \div 2 = 1$ · $42 \div 7 = 6$ · $72 \div 9 = 8$ · $18 \div 2 = 9$ · $55 \div 5 = 11$ · $25 \div 5 = 5$ · $20 \div 2 = 10$ · $12 \div 1 = 12$ · $33 \div 11 = 3$ · $14 \div 7 = 2$ · $28 \div 4 = 7$