



The Great Space Station Mystery

Grade 1 math · Addition, Subtraction, Multiplication, Skip counting, Missing addends · Reading level grades 1-2

Detective: _____ **Date:** _____

Oh no! A sneaky Space Bandit snuck onto the Starlight Space Station and hid the Chief Astronomer's shiny star crystal! Help the Space Crew solve the clues and find out who did it.

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 Space Bandit is _____

Possible suspects

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

NAME	SUIT GEAR	GADGET	GLOVE HAND	HELMET STRIPE	SPACE TRAP
Jessica	Grapple Hook	Moon Scope	Left Handed	Bright Blue	Dust Spray
Eileen	Radar Dish	Solar Battery	Left Handed	Neon Red	Dust Spray
Sian	Jetpack	Radio Beam	Left Handed	Bright Blue	Squeaky Toy
Peggy	Magnetic Boots	Radio Beam	Right Handed	Silver Glow	Dust Spray
Kjell	Magnetic Boots	Space Net	Right Handed	Bright Blue	Squeaky Toy
Yuri	Laser Torch	Moon Scope	Left Handed	Bright Blue	Squeaky Toy
Guy	Laser Torch	Solar Battery	Left Handed	Bright Blue	Dust Spray
Sally	Grapple Hook	Moon Scope	Left Handed	Bright Blue	Squeaky Toy
Chris	Laser Torch	Solar Battery	Right Handed	Bright Blue	Squeaky Toy
Raja	Magnetic Boots	Star Map	Right Handed	Bright Blue	Dust Spray
Christina	Magnetic Boots	Star Map	Right Handed	Silver Glow	Squeaky Toy
Bernard	Grapple Hook	Star Map	Right Handed	Bright Blue	Squeaky Toy
Valentina	Grapple Hook	Solar Battery	Right Handed	Bright Blue	Flashlight
Anousheh	Radar Dish	Star Map	Right Handed	Bright Blue	Squeaky Toy
Kalpana	Radar Dish	Moon Scope	Right Handed	Neon Red	Squeaky Toy
Guion	Jetpack	Solar Battery	Left Handed	Bright Blue	Flashlight
Buzz	Grapple Hook	Radio Beam	Right Handed	Neon Red	Squeaky Toy
Alan	Magnetic Boots	Moon Scope	Right Handed	Silver Glow	Squeaky Toy
Neil	Grapple Hook	Radio Beam	Right Handed	Bright Blue	Squeaky Toy
Victor	Grapple Hook	Solar Battery	Left Handed	Neon Red	Dust Spray
Mae	Magnetic Boots	Solar Battery	Left Handed	Neon Red	Squeaky Toy

CLUE 1 Addition

We found star stickers dropped on the floor. Count all the stars together to find the first clue.

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

T									T									T
11	5	7	13	10	16	8	17	11	8	12	7	20	16	12	11			
													T	T				
9	10	4	4	14	10	20	12	2	10	4	13	10	11	11	7	4	14	

$5 + 6 = \square \rightarrow$ T	$3 + 7 = \square \rightarrow$ A	$1 + 1 = \square \rightarrow$ L	$10 + 7 = \square \rightarrow$ I
$4 + 1 = \square \rightarrow$ H	$9 + 7 = \square \rightarrow$ N	$2 + 7 = \square \rightarrow$ C	$12 + 8 = \square \rightarrow$ S
$4 + 3 = \square \rightarrow$ E	$6 + 2 = \square \rightarrow$ D	$9 + 5 = \square \rightarrow$ Y	$8 + 4 = \square \rightarrow$ O
$2 + 2 = \square \rightarrow$ R	$5 + 8 = \square \rightarrow$ B		

Scratch space:

CLUE 2

Some space rocks were taken from the lab table. Take away the missing rocks to unlock this note.

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

A 2x5 grid of boxes. The top row contains the following values from left to right: 18 (with an orange 'T' above it), 10, 2, 4, 11, 8, 10, 18 (with an orange 'T' above it), 10, 6, 9, 5, 2, 5, 8, 19, 3, 17, 2. The bottom row contains the following values from left to right: 14, 6, 1, 19, 2, 16, 18 (with an orange 'T' above it), 13, 19, 2, 6, 9.

$19 - 1 = \boxed{} \rightarrow \boxed{\text{T}}$

$14 - 1 = \boxed{} \rightarrow \boxed{\text{C}}$

$18 - 2 = \boxed{} \rightarrow \boxed{\text{F}}$

$12 - 8 = \boxed{} \rightarrow \boxed{\text{R}}$

$13 - 7 = \boxed{} \rightarrow \boxed{\text{A}}$

$3 - 1 = \boxed{} \rightarrow \boxed{\mathbf{E}}$

$$20 - 1 = \boxed{} \rightarrow \boxed{\text{L}}$$

15 - 4 = → **I**

$10 - 5 = \boxed{} \rightarrow \boxed{\text{D}}$

$$19 - 2 = \boxed{} \rightarrow \boxed{\mathbf{V}}$$

$$4 - 3 = \boxed{} \rightarrow \boxed{\mathbf{S}}$$

$$11 - 1 = \boxed{} \rightarrow \boxed{\text{H}}$$

$20 - 6 = \boxed{} \rightarrow \boxed{\text{W}}$

$$12 - 9 = \boxed{} \rightarrow \boxed{0}$$

$14 - 5 = \boxed{} \rightarrow \boxed{\text{N}}$

$16 - 8 = \boxed{} \rightarrow \boxed{\mathbf{G}}$

Scratch space:

CLUE 3

Multiplication facts (1-12)

The space station has equal rows of moon boots. Multiply the rows to read the log.

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

A									A					
144	8	36	44	7	21	5	44	35	144	22	30	56	36	30

		A							A					A		A		
21	6	144	10	35	7	56	11	35	4	144	66	7	55	56	144	14	144	30

$12 \times 12 = \square \rightarrow \text{A}$

$5 \times 11 = \square \rightarrow \text{I}$

$3 \times 7 = \square \rightarrow \text{S}$

$7 \times 5 = \square \rightarrow \text{E}$

$5 \times 1 = \square \rightarrow \text{Q}$

$4 \times 2 = \square \rightarrow \text{L}$

$7 \times 1 = \square \rightarrow \text{D}$

$6 \times 5 = \square \rightarrow \text{Y}$

$2 \times 5 = \square \rightarrow \text{R}$

$12 \times 3 = \square \rightarrow \text{O}$

$1 \times 6 = \square \rightarrow \text{C}$

$1 \times 11 = \square \rightarrow \text{H}$

$11 \times 6 = \square \rightarrow \text{N}$

$11 \times 4 = \square \rightarrow \text{U}$

$11 \times 2 = \square \rightarrow \text{K}$

$4 \times 1 = \square \rightarrow \text{B}$

$7 \times 8 = \square \rightarrow \text{T}$

$2 \times 7 = \square \rightarrow \text{W}$

Scratch space:

CLUE 4 Skip counting

We count energy pods by twos down the hallway. Skip count to catch up to the bandit.

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

A																
26	45	33	60	70	20	65	45	10	35	42	25	65	33	60	30	42
	A									A					A	
15	26	25	25	42	42	16	9	16	120	26	6	42	33	26		

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, __, 28, 30 → **A**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, __, 45, 48 → **E**

Skip-count by 5s. Fill the blank: 5, 10, __, 20, 25 → **W**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 → **S**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, __, 40, 45 → **U**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, __, 18, 20 → **N**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, __, 35, 40 → **P**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, __, 70, 80 → **I**

Skip-count by 3s. Fill the blank: 3, 6, __, 12, 15 → **O**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, __, 12, 14 → **L**

Skip-count by 2s. Fill the blank: 2, 4, __, 8, 10 → **M**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, __, 130, 140 → **C**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, __, 50, 55 → **B**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 → **T**

Skip-count by 5s. Fill the blank: 5, 10, 15, __, 25, 30 → **H**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, __, 36, 39 → **R**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, __, 80, 90 → **G**

Scratch space:

CLUE 5**Missing addends - the last clue**

The computer needs ten fuel cells but only has six. Find how many more are needed to open the door.

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:

$7 + \underline{\quad} = 10$

$4 + \underline{\quad} = 9$

$3 + \underline{\quad} = 7$

$8 + \underline{\quad} = 9$

$7 + \underline{\quad} = 19$

$8 + \underline{\quad} = 10$

$7 + \underline{\quad} = 17$

$1 + \underline{\quad} = 12$

$3 + \underline{\quad} = 11$

$10 + \underline{\quad} = 16$

$10 + \underline{\quad} = 19$

Step 2 - cross out the sentence with each answer:

1. The villain used a grapple hook, then drained a solar battery.
2. The villain flew with a jetpack, then drained a solar battery.
3. The villain used a grapple hook, then beamed a radio beam.
4. The villain scouted with a radar dish, then stole a star map.
5. The villain used a grapple hook, then stole a star map.
6. The villain scouted with a radar dish, then threw a space net.
7. The villain walked using magnetic boots, then threw a space net.
8. The villain scouted with a radar dish, then beamed a radio beam.
9. The villain cut through with a laser torch, then stole a star map.
10. The villain scouted with a radar dish, then grabbed a moon scope.
11. The villain flew with a jetpack, then threw a space net.
12. The villain scouted with a radar dish, then drained a solar battery.

Answer Key

The Great Space Station Mystery

Culprit: Kjell

Magnetic Boots · Space Net · Right Handed · Bright Blue · Squeaky Toy

Trail: Start 21 → Clue 1 14 → Clue 2 10 → Clue 3 8 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE BANDIT DOES NOT CARRY A SOLAR BATTERY"

$5 + 6 = 11$ (T) · $3 + 7 = 10$ (A) · $1 + 1 = 2$ (L) · $10 + 7 = 17$ (I) · $4 + 1 = 5$ (H) · $9 + 7 = 16$ (N) · $2 + 7 = 9$ (C) · $12 + 8 = 20$ (S) · $4 + 3 = 7$ (E) · $6 + 2 = 8$ (D) · $9 + 5 = 14$ (Y) · $8 + 4 = 12$ (O) · $2 + 2 = 4$ (R) · $5 + 8 = 13$ (B)

Clue 2 (Subtraction): "THE RIGHT HANDED GLOVE WAS LEFT CLEAN"

$19 - 1 = 18$ (T) · $14 - 1 = 13$ (C) · $18 - 2 = 16$ (F) · $12 - 8 = 4$ (R) · $13 - 7 = 6$ (A) · $3 - 1 = 2$ (E) · $20 - 1 = 19$ (L) · $15 - 4 = 11$ (I) · $10 - 5 = 5$ (D) · $19 - 2 = 17$ (V) · $4 - 3 = 1$ (S) · $11 - 1 = 10$ (H) · $20 - 6 = 14$ (W) · $12 - 9 = 3$ (O) · $14 - 5 = 9$ (N) · $16 - 8 = 8$ (G)

Clue 3 (Multiplication facts (1-12)): "A LOUD SQUEAKY TOY SCARED THE BANDIT AWAY"

$12 \times 12 = 144$ (A) · $5 \times 11 = 55$ (I) · $3 \times 7 = 21$ (S) · $7 \times 5 = 35$ (E) · $5 \times 1 = 5$ (Q) · $4 \times 2 = 8$ (L) · $7 \times 1 = 7$ (D) · $6 \times 5 = 30$ (Y) · $2 \times 5 = 10$ (R) · $12 \times 3 = 36$ (O) · $1 \times 6 = 6$ (C) · $1 \times 11 = 11$ (H) · $11 \times 6 = 66$ (N) · $11 \times 4 = 44$ (U) · $11 \times 2 = 22$ (K) · $4 \times 1 = 4$ (B) · $7 \times 8 = 56$ (T) · $2 \times 7 = 14$ (W)

Clue 4 (Skip counting): "A BRIGHT BLUE STRIPE WAS SEEN ON CAMERA"

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, __, 28, 30 = 26 (A) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, __, 45, 48 = 42 (E) · Skip-count by 5s. Fill the blank: 5, 10, __, 20, 25 = 15 (W) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 = 25 (S) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, __, 40, 45 = 35 (U) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, __, 18, 20 = 16 (N) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, __, 35, 40 = 30 (P) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, __, 70, 80 = 60 (I) · Skip-count by 3s. Fill the blank: 3, 6, __, 12, 15 = 9 (O) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, __, 12, 14 = 10 (L) · Skip-count by 2s. Fill the blank: 2, 4, __, 8, 10 = 6 (M) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, __, 130, 140 = 120 (C) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, __, 50, 55 = 45 (B) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 = 65 (T) · Skip-count by 5s. Fill the blank: 5, 10, 15, __, 25, 30 = 20 (H) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, __, 36, 39 = 33 (R) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, __, 80, 90 = 70 (G)

Clue 5 (Missing addends): surviving statement is box 7 → Kjell

$7 + \underline{\quad} = 10 = 3$ · $4 + \underline{\quad} = 9 = 5$ · $3 + \underline{\quad} = 7 = 4$ · $8 + \underline{\quad} = 9 = 1$ · $7 + \underline{\quad} = 19 = 12$ · $8 + \underline{\quad} = 10 = 2$ · $7 + \underline{\quad} = 17 = 10$ · $1 + \underline{\quad} = 12 = 11$ · $3 + \underline{\quad} = 11 = 8$ · $10 + \underline{\quad} = 16 = 6$ · $10 + \underline{\quad} = 19 = 9$