



The Mystery of Starlight Station

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

Detective: _____ **Date:** _____

A mysterious intruder snuck into Starlight Space Station and scrambled the navigation computer! Station Commander Sarah needs your math skills to decode the clues and track down the culprit before the shuttle departs.

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	MAIN GADGET	EXTRA GEAR	GLOVE HAND	HAIR STYLE	DEFENSE USED
Ellen Ochoa	Gravity Boots	Comet Beacon	Right-handed glove	Silver Space Mullet	Siren Alarm
Eileen Collins	Plasma Torch	Solar Panel	Right-handed glove	Cosmic Blue Ponytail	Siren Alarm
Sunita Williams	Plasma Torch	Asteroid Net	Left-handed glove	Neon Green Buzzcut	Space Magnet
Chris Hadfield	Gravity Boots	Moon Rover	Right-handed glove	Neon Green Buzzcut	Siren Alarm
Alan Shepard	Jetpack Booster	Zero-G Drone	Left-handed glove	Neon Green Buzzcut	Siren Alarm
Yuri Gagarin	Jetpack Booster	Asteroid Net	Right-handed glove	Cosmic Blue Ponytail	Siren Alarm
John Glenn	Laser Cutter	Moon Rover	Right-handed glove	Silver Space Mullet	Siren Alarm
Guion Bluford	Gravity Boots	Zero-G Drone	Right-handed glove	Cosmic Blue Ponytail	Siren Alarm
Christina Koch	Laser Cutter	Moon Rover	Left-handed glove	Cosmic Blue Ponytail	Siren Alarm
Leland Melvin	Laser Cutter	Zero-G Drone	Right-handed glove	Cosmic Blue Ponytail	Siren Alarm
Mae Jemison	Laser Cutter	Moon Rover	Right-handed glove	Neon Green Buzzcut	Flashlight Beam
Victor Glover	Gravity Boots	Comet Beacon	Left-handed glove	Cosmic Blue Ponytail	Siren Alarm
Neil Armstrong	Laser Cutter	Asteroid Net	Right-handed glove	Neon Green Buzzcut	Space Magnet
Anousheh Ansari	Laser Cutter	Comet Beacon	Left-handed glove	Silver Space Mullet	Flashlight Beam
Jeanette Epps	Laser Cutter	Zero-G Drone	Right-handed glove	Cosmic Blue Ponytail	Space Magnet
Kalpana Chawla	Gravity Boots	Moon Rover	Right-handed glove	Cosmic Blue Ponytail	Siren Alarm
Peggy Whitson	Plasma Torch	Asteroid Net	Left-handed glove	Silver Space Mullet	Space Magnet
Buzz Aldrin	Laser Cutter	Zero-G Drone	Right-handed glove	Silver Space Mullet	Space Magnet
Sally Ride	Laser Cutter	Moon Rover	Right-handed glove	Cosmic Blue Ponytail	Flashlight Beam
Kjell Lindgren	Laser Cutter	Comet Beacon	Right-handed glove	Cosmic Blue Ponytail	Flashlight Beam
Jessica Meir	Gravity Boots	Moon Rover	Right-handed glove	Silver Space Mullet	Flashlight Beam

Rounding

The station radar screen only displays sensor distance numbers rounded to the nearest hundred.

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

Round 2,852 to the nearest hundred $\rightarrow$ **T**

Round 30 to the nearest ten $\rightarrow$ **N**

Round 133 to the nearest ten $\rightarrow$ **P**

Round 1,079 to the nearest hundred → **G**

Round 170 to the nearest ten $\rightarrow$

Round 2,982 to the nearest thousand $\rightarrow$ **D**

Round 904 to the nearest hundred $\rightarrow$ **E**

Round 1,710 to the nearest hundred $\rightarrow$ **R**

Round 430 to the nearest ten $\rightarrow$ **A**

Round 52 to the nearest ten $\rightarrow$ **S**

Round 496 to the nearest hundred $\rightarrow$ **L**

Round 8,697 to the nearest thousand → **H**

Round 4,990 to the nearest thousand $\rightarrow$ **U**

Scratch space:

CLUE 2 Addition

The cadet tallied up all the extra space supplies collected during the morning shift.

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

S								S			S			S			
5758	6856	9522	5164	4569	9145	8243	9783	5758	6856	5071	5758	5021	4569	5758	2427	5559	2427

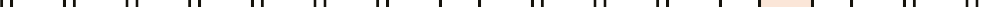
4569	9145	5930	6287	8243	6287	2427	5071	6162	6856	6162	5930	8851	5021	7286	6856

$3446 + 2312 = \square \rightarrow$ S	$6304 + 3218 = \square \rightarrow$ C	$3642 + 5209 = \square \rightarrow$ L
$3986 + 5159 = \square \rightarrow$ I	$2607 + 1962 = \square \rightarrow$ R	$2205 + 3725 = \square \rightarrow$ G
$4961 + 2325 = \square \rightarrow$ V	$3261 + 3595 = \square \rightarrow$ E	$3348 + 2939 = \square \rightarrow$ H
$1917 + 3247 = \square \rightarrow$ U	$6487 + 3296 = \square \rightarrow$ Y	$2561 + 3601 = \square \rightarrow$ D
$1832 + 3239 = \square \rightarrow$ N	$3162 + 2397 = \square \rightarrow$ W	$1213 + 1214 = \square \rightarrow$ A
$1962 + 3059 = \square \rightarrow$ O	$2762 + 5481 = \square \rightarrow$ T	

Scratch space:

CLUE 3

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



 2237 2758 3726 6455 3726 5617 2758 3726 6475 2992 5262 3726 2758 2237 5262 1899 6475 3726 5617

2237 7496 2237 6475 4215 6555 8500 5262 6555 8500 7920 6555 7415 3726 4215

$$7187 - 4950 = \boxed{} \rightarrow \boxed{\text{A}}$$

$$3916 - 2017 = \boxed{} \rightarrow \boxed{\text{I}}$$

$$4423 - 1665 = \boxed{} \rightarrow \boxed{\text{D}}$$

$$9840 - 3385 = \boxed{} \rightarrow \boxed{\text{F}}$$

$$11541 - 3621 = \boxed{} \rightarrow \boxed{\text{P}}$$

$$7645 - 3919 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$7245 - 1983 = \boxed{} \rightarrow \boxed{\text{S}}$$

$7457 - 42 = \boxed{} \rightarrow \boxed{\text{H}}$

$$8551 - 1996 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$8947 - 1451 = \boxed{} \rightarrow \boxed{\text{L}}$$

$$8411 - 2794 = \boxed{} \rightarrow \boxed{\text{N}}$$

$$6315 - 2100 = \boxed{} \rightarrow \boxed{\text{M}}$$

$$5622 - 2630 = \boxed{} \rightarrow \boxed{\text{U}}$$

$7867 - 1392 = \square \rightarrow \boxed{\text{R}}$

$$11751 - 3251 = \boxed{} \rightarrow \boxed{0}$$

Scratch space:

CLUE 4

Multiplication facts (1-12)

The crew counted supply crates stored in neat rows inside the cargo bay.

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

C					C												
2	35	14	110	44	2	120	50	42	84	16	70	44	77	108	70	14	
50	84	20	15	35	80	15	16	84	16	84	50	110	84	15			

$2 \times 1 = \square \rightarrow \text{C}$

$9 \times 12 = \square \rightarrow \text{W}$

$7 \times 11 = \square \rightarrow \text{R}$

$10 \times 12 = \square \rightarrow \text{B}$

$7 \times 6 = \square \rightarrow \text{U}$

$10 \times 5 = \square \rightarrow \text{L}$

$12 \times 7 = \square \rightarrow \text{E}$

$8 \times 2 = \square \rightarrow \text{H}$

$3 \times 5 = \square \rightarrow \text{T}$

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

$10 \times 2 = \square \rightarrow \text{F}$

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

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

$10 \times 11 = \square \rightarrow \text{M}$

$10 \times 8 = \square \rightarrow \text{N}$

$7 \times 10 = \square \rightarrow \text{A}$

Scratch space:

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

The captain divided the extra oxygen tanks equally among the escape pods.

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:

$44 \div 11 = \boxed{}$

$1 \div 1 = \boxed{}$

$55 \div 11 = \boxed{}$

$121 \div 11 = \boxed{}$

$36 \div 12 = \boxed{}$

$40 \div 5 = \boxed{}$

$90 \div 9 = \boxed{}$

$7 \div 1 = \boxed{}$

$144 \div 12 = \boxed{}$

$12 \div 2 = \boxed{}$

$45 \div 5 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain blasted off with a jetpack booster, then cast an asteroid net.
2. The villain powered up their gravity boots, then drove a moon rover.
3. The villain fired up a plasma torch, then launched a comet beacon.
4. The villain powered up their gravity boots, then piloted a zero g drone.
5. The villain sliced with a laser cutter, then piloted a zero g drone.
6. The villain powered up their gravity boots, then deployed a solar panel.
7. The villain sliced with a laser cutter, then cast an asteroid net.
8. The villain powered up their gravity boots, then cast an asteroid net.
9. The villain sliced with a laser cutter, then deployed a solar panel.
10. The villain activated a starlight shield, then piloted a zero g drone.
11. The villain fired up a plasma torch, then piloted a zero g drone.
12. The villain activated a starlight shield, then drove a moon rover.

Answer Key

The Mystery of Starlight Station

Culprit: Kalpana Chawla

Gravity Boots · Moon Rover · Right-handed glove · Cosmic Blue Ponytail · Siren Alarm

Trail: Start 21 → Clue 1 20 → Clue 2 14 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE ROGUE DOES NOT USE A SOLAR PANEL"

Round 2,852 to the nearest hundred = 2900 (T) · Round 30 to the nearest ten = 30 (N) · Round 133 to the nearest ten = 130 (P) · Round 1,079 to the nearest hundred = 1100 (G) · Round 170 to the nearest ten = 170 (O) · Round 2,982 to the nearest thousand = 3000 (D) · Round 904 to the nearest hundred = 900 (E) · Round 1,710 to the nearest hundred = 1700 (R) · Round 430 to the nearest ten = 430 (A) · Round 52 to the nearest ten = 50 (S) · Round 496 to the nearest hundred = 500 (L) · Round 8,697 to the nearest thousand = 9000 (H) · Round 4,990 to the nearest thousand = 5000 (U)

Clue 2 (Addition): "SECURITY SENSORS SAW A RIGHT HANDED GLOVE"

$3446 + 2312 = 5758$ (S) · $6304 + 3218 = 9522$ (C) · $3642 + 5209 = 8851$ (L) · $3986 + 5159 = 9145$ (I) · $2607 + 1962 = 4569$ (R) · $2205 + 3725 = 5930$ (G) · $4961 + 2325 = 7286$ (V) · $3261 + 3595 = 6856$ (E) · $3348 + 2939 = 6287$ (H) · $1917 + 3247 = 5164$ (U) · $6487 + 3296 = 9783$ (Y) · $2561 + 3601 = 6162$ (D) · $1832 + 3239 = 5071$ (N) · $3162 + 2397 = 5559$ (W) · $1213 + 1214 = 2427$ (A) · $1962 + 3059 = 5021$ (O) · $2762 + 5481 = 8243$ (T)

Clue 3 (Subtraction): "A DEFENDER USED A SIREN ALARM TO STOP THEM"

$7187 - 4950 = 2237$ (A) · $3916 - 2017 = 1899$ (I) · $4423 - 1665 = 2758$ (D) · $9840 - 3385 = 6455$ (F) · $11541 - 3621 = 7920$ (P) · $7645 - 3919 = 3726$ (E) · $7245 - 1983 = 5262$ (S) · $7457 - 42 = 7415$ (H) · $8551 - 1996 = 6555$ (T) · $8947 - 1451 = 7496$ (L) · $8411 - 2794 = 5617$ (N) · $6315 - 2100 = 4215$ (M) · $5622 - 2630 = 2992$ (U) · $7867 - 1392 = 6475$ (R) · $11751 - 3251 = 8500$ (O)

Clue 4 (Multiplication facts (1-12)): "COSMIC BLUE HAIR WAS LEFT ON THE HELMET"

$2 \times 1 = 2$ (C) · $9 \times 12 = 108$ (W) · $7 \times 11 = 77$ (R) · $10 \times 12 = 120$ (B) · $7 \times 6 = 42$ (U) · $10 \times 5 = 50$ (L) · $12 \times 7 = 84$ (E) · $8 \times 2 = 16$ (H) · $3 \times 5 = 15$ (T) · $7 \times 2 = 14$ (S) · $10 \times 2 = 20$ (F) · $5 \times 7 = 35$ (O) · $11 \times 4 = 44$ (I) · $10 \times 11 = 110$ (M) · $10 \times 8 = 80$ (N) · $7 \times 10 = 70$ (A)

Clue 5 (Division facts (1-12)): surviving statement is box 2 → Kalpana Chawla

$44 \div 11 = 4$ · $1 \div 1 = 1$ · $55 \div 11 = 5$ · $121 \div 11 = 11$ · $36 \div 12 = 3$ · $40 \div 5 = 8$ · $90 \div 9 = 10$ · $7 \div 1 = 7$ · $144 \div 12 = 12$ · $12 \div 2 = 6$ · $45 \div 5 = 9$