



The Mystery of the Moon Block Heist

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

Detective: _____ **Date:** _____

A sneaky intruder broke into Orbit Block Station Alpha and snatched the ultra-rare Glowstone Core! The Head Astro-Miner needs your detective skills to analyze the space station logs, gather clues, and catch the thief before they hop on a rocket ship.

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 cosmic culprit is _____

Possible suspects

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

NAME	MINING TOOL	SPACE GEAR	GLOVE HAND	COSMIC HAIR	SPACE WEAKNESS
Commander Mae	gravity boots	cosmic visor	wears a right glove	short dark blue hair	afraid of splash potions
Dr Nora	redstone blaster	warp helmet	wears a right glove	short dark blue hair	startled by creeper hiss
Captain Kip	laser pickaxe	meteor compass	wears a left glove	spiky neon green hair	afraid of splash potions
Officer Mina	gravity boots	starlight shield	wears a right glove	braided silver hair	startled by creeper hiss
Pilot Valentina	gravity boots	cosmic visor	wears a left glove	short dark blue hair	allergic to space dust
Agent Rex	gravity boots	warp helmet	wears a left glove	braided silver hair	allergic to space dust
Cadet Buzz	laser pickaxe	starlight shield	wears a right glove	braided silver hair	afraid of splash potions
Miner Steve	plasma drill	cosmic visor	wears a left glove	short dark blue hair	startled by creeper hiss
Miner Axel	laser pickaxe	cosmic visor	wears a right glove	braided silver hair	allergic to space dust
Cadet Nova	redstone blaster	cosmic visor	wears a right glove	spiky neon green hair	afraid of splash potions
Tech Jade	plasma drill	cosmic visor	wears a right glove	braided silver hair	allergic to space dust
Agent Zoe	laser pickaxe	starlight shield	wears a left glove	short dark blue hair	afraid of splash potions
Officer Neil	jetpack booster	starlight shield	wears a left glove	short dark blue hair	afraid of splash potions
Dr Sally	plasma drill	starlight shield	wears a right glove	braided silver hair	allergic to space dust
Ranger Kai	jetpack booster	cosmic visor	wears a right glove	spiky neon green hair	startled by creeper hiss
Cadet Pip	plasma drill	warp helmet	wears a right glove	spiky neon green hair	startled by creeper hiss
Captain Alan	plasma drill	cosmic visor	wears a right glove	short dark blue hair	allergic to space dust
Pilot Dax	jetpack booster	cosmic visor	wears a right glove	short dark blue hair	afraid of splash potions
Pilot Yuri	jetpack booster	cosmic visor	wears a right glove	braided silver hair	allergic to space dust
Astronaut Alex	redstone blaster	warp helmet	wears a left glove	braided silver hair	startled by creeper hiss
Tech Leo	jetpack booster	ender magnet	wears a right glove	braided silver hair	allergic to space dust

CLUE 1 Rounding

The airlock sensor rounded the total gear mass to the nearest hundred.

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

T																T
370	1100	4300	3000	2000	170	170	1300	2000	90	2300	300	4300	20	90	300	370
																T
430	20	4300	1300	90	4300	90	2300	4300	9000	30	1300	5000	90	4300	370	

Round 368 to the nearest ten → **T**

Round 2,345 to the nearest thousand → **I**

Round 30 to the nearest ten → **M**

Round 306 to the nearest hundred → **O**

Round 4,342 to the nearest hundred → **E**

Round 3,334 to the nearest thousand → **V**

Round 17 to the nearest ten → **S**

Round 90 to the nearest ten → **N**

Round 430 to the nearest ten → **U**

Round 169 to the nearest ten → **L**

Round 8,561 to the nearest thousand → **R**

Round 1,290 to the nearest hundred → **A**

Round 4,540 to the nearest thousand → **G**

Round 1,051 to the nearest hundred → **H**

Round 2,333 to the nearest hundred → **D**

Scratch space:

CLUE 2

Addition

Astronaut Leo added up the glowing energy blocks scattered across the floor.

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

W									W						
6602	5502	9544	6802	6222	6807	6807	6807	8127	6602	8127	4632	5502	2439	4028	9544

											W						
2439	6366	9557	4728	6222	6802	6222	8127	4632	9544	4028	6222	6807	6602	5502	9544	7233	4028

$2168 + 4434 = \square \rightarrow \boxed{W}$

$3775 + 3032 = \square \rightarrow \boxed{S}$

$4379 + 3748 = \square \rightarrow \boxed{A}$

$1937 + 2791 = \square \rightarrow \boxed{V}$

$1278 + 1161 = \square \rightarrow \boxed{G}$

$3228 + 6329 = \square \rightarrow \boxed{O}$

$1930 + 2098 = \square \rightarrow \boxed{H}$

$2746 + 3476 = \square \rightarrow \boxed{E}$

$4586 + 4958 = \square \rightarrow \boxed{T}$

$2946 + 3420 = \square \rightarrow \boxed{L}$

$2970 + 1662 = \square \rightarrow \boxed{R}$

$3735 + 3067 = \square \rightarrow \boxed{N}$

$2463 + 3039 = \square \rightarrow \boxed{I}$

$3187 + 4046 = \square \rightarrow \boxed{C}$

Scratch space:

CLUE 3

Subtraction

Commander Nova subtracted the cracked oxygen tanks from the station supply.

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

T

3070 6240 8386
 6240 8386 5770 6167
 1811 1708 8386 6954
 7367 3494 4863 4017 8386

T
 T
 T
 T

6265 7445 7367 3070
 3070 6167
 7367 3070 6167 3494
 3070 6240 8386 3960

$6910 - 3840 = \boxed{} \rightarrow \boxed{T}$

$8149 - 1195 = \boxed{} \rightarrow \boxed{W}$

$9723 - 3953 = \boxed{} \rightarrow \boxed{R}$

$5461 - 1444 = \boxed{} \rightarrow \boxed{C}$

$7143 - 903 = \boxed{} \rightarrow \boxed{H}$

$9902 - 3735 = \boxed{} \rightarrow \boxed{O}$

$8983 - 1538 = \boxed{} \rightarrow \boxed{U}$

$8219 - 4725 = \boxed{} \rightarrow \boxed{P}$

$5535 - 1575 = \boxed{} \rightarrow \boxed{M}$

$9892 - 2525 = \boxed{} \rightarrow \boxed{S}$

$5043 - 3232 = \boxed{} \rightarrow \boxed{B}$

$6952 - 2089 = \boxed{} \rightarrow \boxed{A}$

$11058 - 4793 = \boxed{} \rightarrow \boxed{D}$

$3338 - 1630 = \boxed{} \rightarrow \boxed{L}$

$12416 - 4030 = \boxed{} \rightarrow \boxed{E}$

Scratch space:

CLUE 4
Multiplication facts (1-12)

Miner Axle calculated the total crystal yield across six equal mining rows.

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

T						T			T										
4	88	48	54	48	4	48	3	4	15	6	48	10	60	25	2	54			

											T								
9	15	144	6	48	35	88	56	15	35	56	4	9	3	48	2	48			

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

$1 \times 3 = \square \rightarrow \text{C}$

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

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

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

$6 \times 9 = \square \rightarrow \text{D}$

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

$4 \times 12 = \square \rightarrow \text{E}$

$11 \times 8 = \square \rightarrow \text{H}$

$1 \times 9 = \square \rightarrow \text{S}$

$10 \times 1 = \square \rightarrow \text{F}$

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

$12 \times 5 = \square \rightarrow \text{O}$

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

$5 \times 5 = \square \rightarrow \text{U}$

Scratch space:

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

Tech Sam divided the remaining battery packs equally among the scout ships.

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:

$3 \div 3 = \boxed{}$

$48 \div 6 = \boxed{}$

$77 \div 11 = \boxed{}$

$66 \div 11 = \boxed{}$

$63 \div 7 = \boxed{}$

$24 \div 12 = \boxed{}$

$33 \div 3 = \boxed{}$

$40 \div 10 = \boxed{}$

$110 \div 11 = \boxed{}$

$5 \div 1 = \boxed{}$

$48 \div 4 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain boosted over the security wall, then scanned for hidden guard droids.
2. The villain drilled into the storage bay, then scouted the escape route.
3. The villain drilled into the storage bay, then scanned for hidden guard droids.
4. The villain boosted over the security wall, then deflected the alarm beams.
5. The villain boosted over the security wall, then scouted the escape route.
6. The villain stomp blasted through the floor, then scouted the escape route.
7. The villain zapped the vault lock, then scanned for hidden guard droids.
8. The villain drilled into the storage bay, then deflected the alarm beams.
9. The villain stomp blasted through the floor, then scanned for hidden guard droids.
10. The villain stomp blasted through the floor, then warped through the emergency hatch.
11. The villain drilled into the storage bay, then pulled the glowing chest close.
12. The villain fired a redstone pulse at the door, then scanned for hidden guard droids.

Answer Key

The Mystery of the Moon Block Heist

Culprit: Tech Jade

plasma drill · cosmic visor · wears a right glove · braided silver hair · allergic to space dust

Trail: Start 21 → Clue 1 20 → Clue 2 13 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE VILLAIN DOES NOT USE AN ENDER MAGNET"

Round 368 to the nearest ten = 370 (T) · Round 2,345 to the nearest thousand = 2000 (I) · Round 30 to the nearest ten = 30 (M) · Round 306 to the nearest hundred = 300 (O) · Round 4,342 to the nearest hundred = 4300 (E) · Round 3,334 to the nearest thousand = 3000 (V) · Round 17 to the nearest ten = 20 (S) · Round 90 to the nearest ten = 90 (N) · Round 430 to the nearest ten = 430 (U) · Round 169 to the nearest ten = 170 (L) · Round 8,561 to the nearest thousand = 9000 (R) · Round 1,290 to the nearest hundred = 1300 (A) · Round 4,540 to the nearest thousand = 5000 (G) · Round 1,051 to the nearest hundred = 1100 (H) · Round 2,333 to the nearest hundred = 2300 (D)

Clue 2 (Addition): "WITNESS SAW A RIGHT GLOVE NEAR THE SWITCH"

$2168 + 4434 = 6602$ (W) · $3775 + 3032 = 6807$ (S) · $4379 + 3748 = 8127$ (A) · $1937 + 2791 = 4728$ (V) · $1278 + 1161 = 2439$ (G) · $3228 + 6329 = 9557$ (O) · $1930 + 2098 = 4028$ (H) · $2746 + 3476 = 6222$ (E) · $4586 + 4958 = 9544$ (T) · $2946 + 3420 = 6366$ (L) · $2970 + 1662 = 4632$ (R) · $3735 + 3067 = 6802$ (N) · $2463 + 3039 = 5502$ (I) · $3187 + 4046 = 7233$ (C)

Clue 3 (Subtraction): "THE HERO BLEW SPACE DUST TO STOP THEM"

$6910 - 3840 = 3070$ (T) · $8149 - 1195 = 6954$ (W) · $9723 - 3953 = 5770$ (R) · $5461 - 1444 = 4017$ (C) · $7143 - 903 = 6240$ (H) · $9902 - 3735 = 6167$ (O) · $8983 - 1538 = 7445$ (U) · $8219 - 4725 = 3494$ (P) · $5535 - 1575 = 3960$ (M) · $9892 - 2525 = 7367$ (S) · $5043 - 3232 = 1811$ (B) · $6952 - 2089 = 4863$ (A) · $11058 - 4793 = 6265$ (D) · $3338 - 1630 = 1708$ (L) · $12416 - 4030 = 8386$ (E)

Clue 4 (Multiplication facts (1-12)): "THE DETECTIVE FOUND SILVER HAIR AT SCENE"

$4 \times 1 = 4$ (T) · $1 \times 3 = 3$ (C) · $8 \times 7 = 56$ (A) · $1 \times 6 = 6$ (V) · $7 \times 5 = 35$ (R) · $6 \times 9 = 54$ (D) · $1 \times 2 = 2$ (N) · $4 \times 12 = 48$ (E) · $11 \times 8 = 88$ (H) · $1 \times 9 = 9$ (S) · $10 \times 1 = 10$ (F) · $12 \times 12 = 144$ (L) · $12 \times 5 = 60$ (O) · $5 \times 3 = 15$ (I) · $5 \times 5 = 25$ (U)

Clue 5 (Division facts (1-12)): surviving statement is box 3 → Tech Jade

$3 \div 3 = 1$ · $48 \div 6 = 8$ · $77 \div 11 = 7$ · $66 \div 11 = 6$ · $63 \div 7 = 9$ · $24 \div 12 = 2$ · $33 \div 3 = 11$ · $40 \div 10 = 4$ · $110 \div 11 = 10$ · $5 \div 1 = 5$ · $48 \div 4 = 12$