Mystery at Starlight Station

Grade 3 math · Rounding, Addition, Subtraction, Multiplication, Division · Reading level grades 1-2

Detective: _____ **Date:** _____

Someone swiped the golden space crystal from Starlight Station! Chief Astronomer Maya needs your help to catch the sneaky thief before the ship blasts off.

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	SPACE SKILL	GEAR ITEM	BADGE SIDE	HAIR STYLE	WEAKNESS
Kalpana Chawla	laser shield	star helmet	right patch	blue spiky hair	magnet trap
Peggy Whitson	warp boost	star helmet	right patch	silver helmet hair	magnet trap
Scott Kelly	warp boost	neon suit	left patch	neon red hair	bright flashlight
Alan Shepard	gravity flip	star helmet	right patch	silver helmet hair	bright flashlight
Michael Collins	astro jetpack	star helmet	right patch	silver helmet hair	magnet trap
Eileen Collins	comet dash	neon suit	left patch	silver helmet hair	bright flashlight
Bernard Harris	astro jetpack	star helmet	left patch	silver helmet hair	magnet trap
Joan Higginbotham	gravity flip	lunar boots	left patch	neon red hair	bright flashlight
Neil Armstrong	comet dash	star helmet	left patch	blue spiky hair	magnet trap
Christina Koch	laser shield	solar visor	right patch	silver helmet hair	magnet trap
Jessica Meir	laser shield	plasma glove	right patch	neon red hair	loud whistle
Sally Ride	comet dash	solar visor	right patch	blue spiky hair	magnet trap
Ellen Ochoa	warp boost	plasma glove	left patch	neon red hair	magnet trap
Chris Hadfield	warp boost	solar visor	left patch	blue spiky hair	magnet trap
Leland Melvin	comet dash	neon suit	left patch	neon red hair	loud whistle
Mae Jemison	warp boost	star helmet	right patch	neon red hair	magnet trap
John Glenn	gravity flip	lunar boots	right patch	silver helmet hair	magnet trap
Sunita Williams	comet dash	plasma glove	right patch	neon red hair	bright flashlight
Buzz Aldrin	gravity flip	neon suit	right patch	neon red hair	magnet trap
Victor Glover	astro jetpack	plasma glove	left patch	blue spiky hair	loud whistle
Valentina Tereshkova	warp boost	solar visor	right patch	silver helmet hair	magnet trap

CLUE 1 Rounding

The space radar screen shows rounded numbers for distance. Read the sensor screen to get the first clue.

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

T																	T		
90	8000	5000	400	600	700	700	4000	600	40	500	80	5000	70	40	80	90			
50	5000	4000	20	700	6000	40	4000	20	200	80	80	90	70						

Round 90 to the nearest ten ☐ → T

Round 43 to the nearest ten ☐ → N

Round 77 to the nearest ten ☐ → O

Round 553 to the nearest hundred ☐ → I

Round 4,392 to the nearest thousand ☐ → A

Round 23 to the nearest ten ☐ → R

Round 478 to the nearest hundred ☐ → D

Round 6,089 to the nearest thousand ☐ → U

Round 5,070 to the nearest thousand ☐ → E

Round 688 to the nearest hundred ☐ → L

Round 52 to the nearest ten ☐ → W

Round 246 to the nearest hundred ☐ → B

Round 70 to the nearest ten ☐ → S

Round 8,325 to the nearest thousand ☐ → H

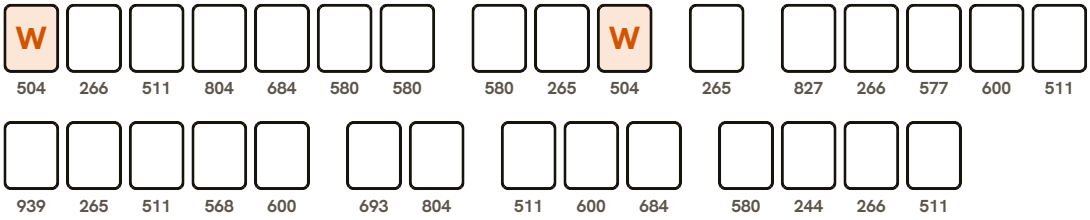
Round 412 to the nearest hundred ☐ → V

Scratch space:

CLUE 2 Addition

Cadet Leo added up all the glowing moon rocks in the lab. Put the totals together to unlock clue two.

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



168 + 336 = ☐ → W

144 + 100 = ☐ → U

387 + 297 = ☐ → E

187 + 381 = ☐ → C

335 + 265 = ☐ → H

205 + 372 = ☐ → G

282 + 229 = ☐ → T

553 + 386 = ☐ → P

542 + 285 = ☐ → R

97 + 169 = ☐ → I

465 + 228 = ☐ → O

184 + 81 = ☐ → A

277 + 303 = ☐ → S

513 + 291 = ☐ → N

Scratch space:

CLUE 3 Subtraction

The ship lost some power packs during the space jump. Take away the used packs to find clue three.

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

T																								
562	348	744	531	769	294	294	151	615	379	744	354	615	769	294	161	586								
161	586	890	762	744	562	562	769	586	567															

751 - 189 = ☐ → T

1082 - 320 = ☐ → N

925 - 35 = ☐ → G

843 - 99 = ☐ → E

716 - 149 = ☐ → P

435 - 274 = ☐ → M

586 - 292 = ☐ → O

1013 - 244 = ☐ → R

365 - 17 = ☐ → H

831 - 245 = ☐ → A

313 - 162 = ☐ → K

547 - 16 = ☐ → C

395 - 41 = ☐ → D

623 - 244 = ☐ → L

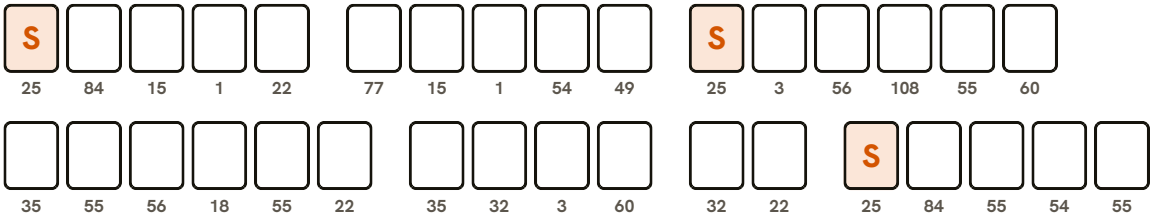
984 - 369 = ☐ → F

Scratch space:

CLUE 4 Multiplication facts (1-12)

Bright rows of star badges sit on the shelf. Count the equal rows to get clue four.

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



5 × 5 = ☐ → S	9 × 12 = ☐ → V	12 × 7 = ☐ → C	
5 × 12 = ☐ → R	3 × 6 = ☐ → M	7 × 7 = ☐ → D	4 × 8 = ☐ → A
5 × 7 = ☐ → H	9 × 6 = ☐ → N	3 × 5 = ☐ → O	7 × 11 = ☐ → F
2 × 11 = ☐ → T	7 × 8 = ☐ → L	11 × 5 = ☐ → E	
1 × 1 = ☐ → U	3 × 1 = ☐ → I		

Scratch space:

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

> The commander shared alien snacks equally among the crew. Divide the snacks to reveal the final clue.

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:

45 ÷ 5 = ☐ | 33 ÷ 3 = ☐ | 33 ÷ 11 = ☐ | 6 ÷ 1 = ☐ | 5 ÷ 5 = ☐

49 ÷ 7 = ☐ | 44 ÷ 11 = ☐ | 25 ÷ 5 = ☐ | 30 ÷ 3 = ☐ | 14 ÷ 7 = ☐

88 ÷ 11 = ☐

Step 2 - cross out the sentence with each answer:

1. The villain uses a gravity flip, then zips up a neon suit.
2. The villain triggers a warp boost, then zips up a neon suit.
3. The villain triggers a warp boost, then puts on a star helmet.
4. The villain triggers a warp boost, then charges a plasma glove.
5. The villain flies with an astro jetpack, then zips up a neon suit.
6. The villain activates a laser shield, then charges a plasma glove.
7. The villain zooms with a comet dash, then puts on a star helmet.
8. The villain activates a laser shield, then laces up lunar boots.
9. The villain triggers a warp boost, then adjusts a solar visor.
10. The villain zooms with a comet dash, then zips up a neon suit.
11. The villain flies with an astro jetpack, then puts on a star helmet.
12. The villain activates a laser shield, then adjusts a solar visor.

TEACHER / PARENT

Answer Key

Mystery at Starlight Station

Culprit: Christina Koch

laser shield · solar visor · right patch · silver helmet hair · magnet trap

Trail: Start 21 → Clue 1 19 → Clue 2 11 → Clue 3 8 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE VILLAIN DOES NOT WEAR LUNAR BOOTS"

Round 90 to the nearest ten = 90 (T) · Round 43 to the nearest ten = 40 (N) · Round 77 to the nearest ten = 80 (O) · Round 553 to the nearest hundred = 600 (I) · Round 4,392 to the nearest thousand = 4000 (A) · Round 23 to the nearest ten = 20 (R) · Round 478 to the nearest hundred = 500 (D) · Round 6,089 to the nearest thousand = 6000 (U) · Round 5,070 to the nearest thousand = 5000 (E) · Round 688 to the nearest hundred = 700 (L) · Round 52 to the nearest ten = 50 (W) · Round 246 to the nearest hundred = 200 (B) · Round 70 to the nearest ten = 70 (S) · Round 8,325 to the nearest thousand = 8000 (H) · Round 412 to the nearest hundred = 400 (V)

Clue 2 (Addition): "WITNESS SAW A RIGHT PATCH ON THE SUIT"

168 + 336 = 504 (W) · 144 + 100 = 244 (U) · 387 + 297 = 684 (E) · 187 + 381 = 568 (C) · 335 + 265 = 600 (H) · 205 + 372 = 577 (G) · 282 + 229 = 511 (T) · 553 + 386 = 939 (P) · 542 + 285 = 827 (R) · 97 + 169 = 266 (I) · 465 + 228 = 693 (O) · 184 + 81 = 265 (A) · 277 + 303 = 580 (S) · 513 + 291 = 804 (N)

Clue 3 (Subtraction): "THE CROOK FLED FROM A MAGNET TRAP"

751 - 189 = 562 (T) · 1082 - 320 = 762 (N) · 925 - 35 = 890 (G) · 843 - 99 = 744 (E) · 716 - 149 = 567 (P) · 435 - 274 = 161 (M) · 586 - 292 = 294 (O) · 1013 - 244 = 769 (R) · 365 - 17 = 348 (H) · 831 - 245 = 586 (A) · 313 - 162 = 151 (K) · 547 - 16 = 531 (C) · 395 - 41 = 354 (D) · 623 - 244 = 379 (L) · 984 - 369 = 615 (F)

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

5 × 5 = 25 (S) · 9 × 12 = 108 (V) · 12 × 7 = 84 (C) · 5 × 12 = 60 (R) · 3 × 6 = 18 (M) · 7 × 7 = 49 (D) · 4 × 8 = 32 (A) · 5 × 7 = 35 (H) · 9 × 6 = 54 (N) · 3 × 5 = 15 (O) · 7 × 11 = 77 (F) · 2 × 11 = 22 (T) · 7 × 8 = 56 (L) · 11 × 5 = 55 (E) · 1 × 1 = 1 (U) · 3 × 1 = 3 (I)

Clue 5 (Division facts (1-12)): surviving statement is box 12 → Christina Koch

45 ÷ 5 = 9 · 33 ÷ 3 = 11 · 33 ÷ 11 = 3 · 6 ÷ 1 = 6 · 5 ÷ 5 = 1 · 49 ÷ 7 = 7 · 44 ÷ 11 = 4 · 25 ÷ 5 = 5 · 30 ÷ 3 = 10 · 14 ÷ 7 = 2 · 88 ÷ 11 = 8