



The Great Zero-Gravity Trophy Heist

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

Detective: _____ Date: _____

The golden Zero-Gravity Cup has vanished from the Asteroid Arena right before the big game! The stadium is locked down, and it is up to you to track down the tricky champion who took 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 Rogue Player is _____

Possible suspects

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

NAME	SIGNATURE MOVE	SPACESUIT BOOSTER	SHOOTING HAND	HELMET STRIPE COLOR	SLAM-DUNK HAZARD
Chloe Cosmos	Comet Kick	Rocket Jets	Left-handed shooter	Neon Green	Asteroid Dust Storms
Penny Planet	Meteor Pass	Rocket Jets	Left-handed shooter	Solar Orange	Heavy Gravity Zones
KD Crater	Comet Kick	Force Shield	Right-handed shooter	Solar Orange	Asteroid Dust Storms
Alex Asteroid	Gravity Dunk	Sticky Gloves	Left-handed shooter	Solar Orange	Heavy Gravity Zones
Leo Lunar	Comet Kick	Spring Boots	Right-handed shooter	Cosmic Purple	Asteroid Dust Storms
Steph Star	Orbit Dribble	Sticky Gloves	Right-handed shooter	Solar Orange	Asteroid Dust Storms
Yuki Moon	Meteor Pass	Force Shield	Right-handed shooter	Neon Green	Asteroid Dust Storms
Mo Orbit	Meteor Pass	Sticky Gloves	Right-handed shooter	Solar Orange	Bright Nebula Glare
Harry Halley	Nebula Block	Sticky Gloves	Left-handed shooter	Solar Orange	Asteroid Dust Storms
Sam Solar	Nebula Block	Sticky Gloves	Left-handed shooter	Neon Green	Asteroid Dust Storms
Luka Launch	Comet Kick	Sticky Gloves	Left-handed shooter	Solar Orange	Bright Nebula Glare
LeBron Space	Nebula Block	Sticky Gloves	Left-handed shooter	Neon Green	Heavy Gravity Zones
Ronaldo Rocket	Meteor Pass	Spring Boots	Left-handed shooter	Solar Orange	Asteroid Dust Storms
Giannis Galaxy	Nebula Block	Rocket Jets	Left-handed shooter	Neon Green	Heavy Gravity Zones
Zion Zero	Meteor Pass	Sticky Gloves	Left-handed shooter	Solar Orange	Asteroid Dust Storms
Messi Comet	Gravity Dunk	Sticky Gloves	Right-handed shooter	Solar Orange	Bright Nebula Glare
Sloane Shuttle	Nebula Block	Force Shield	Left-handed shooter	Solar Orange	Asteroid Dust Storms
Devin Dust	Gravity Dunk	Spring Boots	Right-handed shooter	Solar Orange	Bright Nebula Glare
Coco Comet	Comet Kick	Spring Boots	Left-handed shooter	Cosmic Purple	Heavy Gravity Zones
Marcus Milkyway	Orbit Dribble	Rocket Jets	Left-handed shooter	Solar Orange	Asteroid Dust Storms
Megan Meteor	Gravity Dunk	Laser Visor	Left-handed shooter	Cosmic Purple	Bright Nebula Glare

CLUE 1
Multiplication facts (1-12)

To find the thief, we must count the rows of rocket-balls in the gym. The balls are stacked in equal groups. Solve this multiplication problem to unlock the first clue!

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

T			T															
9	4	132	9	4	70	132	12	18	56	132	24	49	56	9	35	24	132	15
12	56	21	6	132	24	4	70	132	40	18								

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

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

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

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

$2 \times 12 = \square \rightarrow \text{S}$

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

$4 \times 3 = \square \rightarrow \text{F}$

$7 \times 7 = \square \rightarrow \text{N}$

$9 \times 2 = \square \rightarrow \text{D}$

$11 \times 12 = \square \rightarrow \text{E}$

$5 \times 8 = \square \rightarrow \text{L}$

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

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

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

Scratch space:

CLUE 2 Addition

We need to add up all the space jerseys found near the locker room. Help us count the total number of items to reveal the next piece of evidence.

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

T					T												T
2485	7933	6589	2061	9393	2485	7977	6589	2346	2346	2346	6414	2061	6414	6127	6589	2823	2485

									T
7933	6414	7977	7177	6589	7177	2346	7933	3327	2485

936 + 1549 = → T	3648 + 4329 = → N	4740 + 4653 = → I
1535 + 811 = → S	1011 + 1050 = → W	3864 + 3313 = → D
2904 + 3223 = → L	2673 + 3741 = → A	4311 + 2278 = → E
1223 + 2104 = → O	2561 + 5372 = → H	1933 + 890 = → F

Scratch space:

CLUE 3
Subtraction

Some basketballs floated away into orbit when the gravity turned off. Subtract the lost balls from our starting stash to see what is left.

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

T															T
7207	2457	1137	6632	3669	1137	1137	4201	3906	3669	4770	3019	3906	7207		

										T						T
2457	8222	1658	1658	1137	3669	1137	8976	3906	3669	7207	2457	1137	8976	8362	6632	7207

$11497 - 4290 = \boxed{} \rightarrow \boxed{\text{T}}$

$7249 - 3343 = \boxed{} \rightarrow \boxed{\text{I}}$

$9307 - 945 = \boxed{} \rightarrow \boxed{\text{U}}$

$7567 - 2797 = \boxed{} \rightarrow \boxed{\text{G}}$

$5282 - 3624 = \boxed{} \rightarrow \boxed{\text{P}}$

$9166 - 2534 = \boxed{} \rightarrow \boxed{\text{S}}$

$2491 - 34 = \boxed{} \rightarrow \boxed{\text{H}}$

$3334 - 315 = \boxed{} \rightarrow \boxed{\text{F}}$

$7211 - 3542 = \boxed{} \rightarrow \boxed{\text{N}}$

$11515 - 3293 = \boxed{} \rightarrow \boxed{\text{A}}$

$3561 - 2424 = \boxed{} \rightarrow \boxed{\text{E}}$

$8984 - 8 = \boxed{} \rightarrow \boxed{\text{D}}$

$5109 - 908 = \boxed{} \rightarrow \boxed{\text{Z}}$

Scratch space:

CLUE 4 Rounding

The radar scanner tracked the runner, but the broken screen only shows numbers rounded to the nearest ten.
Round this distance to read the data.

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

W																	
2900	3700	5000	50	110	370	500	300	50	900	230	1100	50	1100	230	370	130	3700

30	230	7000	370	200	300	30	1100	230	90	3700	500

Round 2,889 to the nearest hundred → **W**

Round 112 to the nearest ten → **U**

Round 228 to the nearest ten → **A**

Round 483 to the nearest hundred → **D**

Round 3,654 to the nearest hundred → **E**

Round 320 to the nearest hundred → **S**

Round 92 to the nearest ten → **Y**

Round 132 to the nearest ten → **G**

Round 1,128 to the nearest hundred → **R**

Round 367 to the nearest ten → **N**

Round 6,768 to the nearest thousand → **I**

Round 4,741 to the nearest thousand → **F**

Round 919 to the nearest hundred → **L**

Round 32 to the nearest ten → **P**

Round 48 to the nearest ten → **O**

Round 160 to the nearest hundred → **T**

Scratch space:

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

We have a pack of energy snacks to share equally among our patrol bots. Divide the snacks to get the final clue about our suspect.

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:

$60 \div 5 = \boxed{}$

$81 \div 9 = \boxed{}$

$4 \div 4 = \boxed{}$

$80 \div 8 = \boxed{}$

$16 \div 2 = \boxed{}$

$5 \div 1 = \boxed{}$

$3 \div 1 = \boxed{}$

$32 \div 8 = \boxed{}$

$22 \div 2 = \boxed{}$

$18 \div 9 = \boxed{}$

$77 \div 11 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain threw a perfect meteor pass, then used sticky gloves to grab the prize.
2. The villain executed a giant nebula block, then turned on a force shield to block guards.
3. The villain showed a tricky orbit dribble, then used sticky gloves to grab the prize.
4. The villain threw a perfect meteor pass, then activated their rocket jets to escape.
5. The villain threw a perfect meteor pass, then shined their laser visor in the camera.
6. The villain threw a perfect meteor pass, then bounced away using spring boots.
7. The villain pulled off a gravity dunk, then used sticky gloves to grab the prize.
8. The villain pulled off a gravity dunk, then shined their laser visor in the camera.
9. The villain executed a giant nebula block, then used sticky gloves to grab the prize.
10. The villain did a fast comet kick, then shined their laser visor in the camera.
11. The villain did a fast comet kick, then used sticky gloves to grab the prize.
12. The villain showed a tricky orbit dribble, then activated their rocket jets to escape.

Answer Key

The Great Zero-Gravity Trophy Heist

Culprit: Ronaldo Rocket

Meteor Pass · Spring Boots · Left-handed shooter · Solar Orange · Asteroid Dust Storms

Trail: Start 21 → Clue 1 18 → Clue 2 13 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE THIEF DOES NOT USE A FORCE SHIELD"

$3 \times 3 = 9$ (T) · $3 \times 7 = 21$ (R) · $3 \times 5 = 15$ (A) · $8 \times 7 = 56$ (O) · $2 \times 12 = 24$ (S) · $10 \times 7 = 70$ (I) · $4 \times 3 = 12$ (F) · $7 \times 7 = 49$ (N) · $9 \times 2 = 18$ (D) · $11 \times 12 = 132$ (E) · $5 \times 8 = 40$ (L) · $7 \times 5 = 35$ (U) · $1 \times 4 = 4$ (H) · $6 \times 1 = 6$ (C)

Clue 2 (Addition): "THE WITNESS SAW A LEFT HANDED SHOT"

$936 + 1549 = 2485$ (T) · $3648 + 4329 = 7977$ (N) · $4740 + 4653 = 9393$ (I) · $1535 + 811 = 2346$ (S) · $1011 + 1050 = 2061$ (W) · $3864 + 3313 = 7177$ (D) · $2904 + 3223 = 6127$ (L) · $2673 + 3741 = 6414$ (A) · $4311 + 2278 = 6589$ (E) · $1223 + 2104 = 3327$ (O) · $2561 + 5372 = 7933$ (H) · $1933 + 890 = 2823$ (F)

Clue 3 (Subtraction): "THE SNEEZING FIT HAPPENED IN THE DUST"

$11497 - 4290 = 7207$ (T) · $7249 - 3343 = 3906$ (I) · $9307 - 945 = 8362$ (U) · $7567 - 2797 = 4770$ (G) · $5282 - 3624 = 1658$ (P) · $9166 - 2534 = 6632$ (S) · $2491 - 34 = 2457$ (H) · $3334 - 315 = 3019$ (F) · $7211 - 3542 = 3669$ (N) · $11515 - 3293 = 8222$ (A) · $3561 - 2424 = 1137$ (E) · $8984 - 8 = 8976$ (D) · $5109 - 908 = 4201$ (Z)

Clue 4 (Rounding): "WE FOUND SOLAR ORANGE PAINT SPRAYED"

Round 2,889 to the nearest hundred = 2900 (W) · Round 112 to the nearest ten = 110 (U) · Round 228 to the nearest ten = 230 (A) · Round 483 to the nearest hundred = 500 (D) · Round 3,654 to the nearest hundred = 3700 (E) · Round 320 to the nearest hundred = 300 (S) · Round 92 to the nearest ten = 90 (Y) · Round 132 to the nearest ten = 130 (G) · Round 1,128 to the nearest hundred = 1100 (R) · Round 367 to the nearest ten = 370 (N) · Round 6,768 to the nearest thousand = 7000 (I) · Round 4,741 to the nearest thousand = 5000 (F) · Round 919 to the nearest hundred = 900 (L) · Round 32 to the nearest ten = 30 (P) · Round 48 to the nearest ten = 50 (O) · Round 160 to the nearest hundred = 200 (T)

Clue 5 (Division facts (1-12)): surviving statement is box 6 → Ronaldo Rocket

$60 \div 5 = 12$ · $81 \div 9 = 9$ · $4 \div 4 = 1$ · $80 \div 8 = 10$ · $16 \div 2 = 8$ · $5 \div 1 = 5$ · $3 \div 1 = 3$ · $32 \div 8 = 4$ · $22 \div 2 = 11$ · $18 \div 9 = 2$ · $77 \div 11 = 7$