



The Great Space-Dino Trophy Caper

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

Detective: _____ **Date:** _____

The Golden Goal Trophy has been stolen from the Asteroid Arena right before the cosmic championship game! We must examine the astro-turf clues to find which space dinosaur player took it. Detective, grab your gravity-cleats and help us crack this case!

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 striker 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	SPACE GEAR	ANKLE BANDAGE	SCALE PATTERN	DISTRACTION
Saurus Messi	Rocket-Tail Sprint	Jetpack Cleats	Wears Left-Foot Bandage	Fiery Red Crest	Bubble Tea Cup
Spino-Spike	Meteor Slam-Dunk	Cybernetic Tail-Armor	Wears Left-Foot Bandage	Shiny Blue Spikes	Squeaky Space Toy
Rex Striker	Laser-Eye Block	Cybernetic Tail-Armor	Wears Left-Foot Bandage	Fiery Red Crest	Shiny Gold Medal
Cosmo Cleat	Gravity-Boost Jump	Magnetic Shinguards	Wears Right-Foot Bandage	Shiny Blue Spikes	Shiny Gold Medal
Dino-Dan	Rocket-Tail Sprint	Cybernetic Tail-Armor	Wears Left-Foot Bandage	Shiny Blue Spikes	Bubble Tea Cup
Bronto-Ben	Rocket-Tail Sprint	Jetpack Cleats	Wears Right-Foot Bandage	Shiny Blue Spikes	Shiny Gold Medal
Zlatan Raptor	Meteor Slam-Dunk	Jetpack Cleats	Wears Left-Foot Bandage	Fiery Red Crest	Shiny Gold Medal
Ptera-Pele	Tail-Whip Kick	Glow-in-the-Dark Helmet	Wears Left-Foot Bandage	Fiery Red Crest	Squeaky Space Toy
Orbit Owen	Tail-Whip Kick	Jetpack Cleats	Wears Left-Foot Bandage	Neon Green Scales	Squeaky Space Toy
Neymar-Rex	Rocket-Tail Sprint	Glow-in-the-Dark Helmet	Wears Right-Foot Bandage	Shiny Blue Spikes	Shiny Gold Medal
Mia Hammsaurus	Rocket-Tail Sprint	Forcefield Gloves	Wears Right-Foot Bandage	Neon Green Scales	Squeaky Space Toy
Buster Beak	Rocket-Tail Sprint	Forcefield Gloves	Wears Right-Foot Bandage	Shiny Blue Spikes	Bubble Tea Cup
Nova Ned	Laser-Eye Block	Magnetic Shinguards	Wears Right-Foot Bandage	Fiery Red Crest	Shiny Gold Medal
Veloci-Val	Meteor Slam-Dunk	Jetpack Cleats	Wears Left-Foot Bandage	Shiny Blue Spikes	Squeaky Space Toy
Ankylo-Alex	Meteor Slam-Dunk	Magnetic Shinguards	Wears Right-Foot Bandage	Neon Green Scales	Squeaky Space Toy
Comet Carla	Rocket-Tail Sprint	Magnetic Shinguards	Wears Left-Foot Bandage	Fiery Red Crest	Shiny Gold Medal
Astro Abby	Rocket-Tail Sprint	Cybernetic Tail-Armor	Wears Left-Foot Bandage	Fiery Red Crest	Shiny Gold Medal
Megan Dino	Rocket-Tail Sprint	Jetpack Cleats	Wears Left-Foot Bandage	Fiery Red Crest	Shiny Gold Medal
Trixie Raptor	Meteor Slam-Dunk	Cybernetic Tail-Armor	Wears Left-Foot Bandage	Shiny Blue Spikes	Shiny Gold Medal
Giga-Gaby	Laser-Eye Block	Magnetic Shinguards	Wears Left-Foot Bandage	Fiery Red Crest	Shiny Gold Medal
Compy-Carter	Tail-Whip Kick	Jetpack Cleats	Wears Left-Foot Bandage	Neon Green Scales	Shiny Gold Medal

CLUE 1 Rounding

The arena radar scanner is old and can only show rounded numbers of players nearby. We checked the security gate logs to narrow down the suspect.

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

T															
20	5000	9000	2000	1300	30	30	90	1300	1100	30	90	3700	110	3000	
							T			T					
3700	300	290	9000	230	1100	9000	20	1300	3700	20	90	1300	30	90	230

Round 16 to the nearest ten → **T**

Round 1,118 to the nearest hundred → **N**

Round 662 to the nearest hundred → **O**

Round 2,943 to the nearest thousand → **S**

Round 4,855 to the nearest thousand → **H**

Round 8,832 to the nearest thousand → **E**

Round 1,668 to the nearest thousand → **V**

Round 27 to the nearest ten → **L**

Round 2,336 to the nearest hundred → **M**

Round 94 to the nearest ten → **A**

Round 293 to the nearest ten → **B**

Round 232 to the nearest ten → **R**

Round 3,682 to the nearest hundred → **C**

Round 1,289 to the nearest hundred → **I**

Round 301 to the nearest hundred → **Y**

Round 114 to the nearest ten → **K**

Scratch space:

CLUE 2 Addition

The coach counted up all the shiny neon soccer balls left on the practice field to see if any extra players had visited.

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

A											A			A		
4712	2830	8909	4872	6396	4872	9338	9338	6396	3108	4712	2608	4569	4712	2371	8909	

	A				A						
3551	4712	4469	8740	6999	4712	5876	4872	9338	7474	2608	4569

$1508 + 3204 = \square \rightarrow \boxed{\text{A}}$

$3289 + 3107 = \square \rightarrow \boxed{\text{T}}$

$4912 + 3997 = \square \rightarrow \boxed{\text{E}}$

$2765 + 4234 = \square \rightarrow \boxed{\text{W}}$

$4435 + 3039 = \square \rightarrow \boxed{\text{U}}$

$1219 + 1389 = \square \rightarrow \boxed{\text{N}}$

$1463 + 908 = \square \rightarrow \boxed{\text{G}}$

$2006 + 1102 = \square \rightarrow \boxed{\text{B}}$

$2014 + 1537 = \square \rightarrow \boxed{\text{M}}$

$3171 + 1398 = \square \rightarrow \boxed{\text{D}}$

$4324 + 4416 = \square \rightarrow \boxed{\text{K}}$

$2684 + 3192 = \square \rightarrow \boxed{\text{S}}$

$2064 + 2808 = \square \rightarrow \boxed{\text{F}}$

$5151 + 4187 = \square \rightarrow \boxed{\text{O}}$

$1815 + 1015 = \square \rightarrow \boxed{\text{L}}$

$1829 + 2640 = \square \rightarrow \boxed{\text{R}}$

Scratch space:

CLUE 3
Subtraction

We took the total number of gravity boots in the locker room and subtracted the ones left behind to find out how many the thief took.

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

T										T										
5935	4365	5785	4901	4961	6283	7531	6283	3460	5935	5785	4961	6283	1999	4365	2903	7531	4901			

7281	6892	8440	7769	8378	5785	7769	6283	8440

$8418 - 2483 = \boxed{} \rightarrow \boxed{\text{T}}$

$9721 - 1281 = \boxed{} \rightarrow \boxed{\text{L}}$

$7031 - 139 = \boxed{} \rightarrow \boxed{\text{O}}$

$9677 - 1908 = \boxed{} \rightarrow \boxed{\text{D}}$

$5214 - 1754 = \boxed{} \rightarrow \boxed{\text{F}}$

$10989 - 3708 = \boxed{} \rightarrow \boxed{\text{G}}$

$3347 - 444 = \boxed{} \rightarrow \boxed{\text{I}}$

$10093 - 1715 = \boxed{} \rightarrow \boxed{\text{M}}$

$8005 - 3104 = \boxed{} \rightarrow \boxed{\text{Y}}$

$9815 - 4030 = \boxed{} \rightarrow \boxed{\text{E}}$

$7077 - 794 = \boxed{} \rightarrow \boxed{\text{A}}$

$11875 - 4344 = \boxed{} \rightarrow \boxed{\text{N}}$

$5510 - 3511 = \boxed{} \rightarrow \boxed{\text{S}}$

$8855 - 3894 = \boxed{} \rightarrow \boxed{\text{R}}$

$6130 - 1765 = \boxed{} \rightarrow \boxed{\text{H}}$

Scratch space:

CLUE 4
Multiplication facts (1-12)

The stadium snack bar has neat rows of space-juice boxes. We multiplied the rows by the stacks to see how many the thief drank.

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

A																		A
9	50	4	63	5	56	5	63	27	84	5	63	24	99	24	88	63	27	9

		A		
50	6	9	40	63

$9 \times 1 = \square \rightarrow$ A	$7 \times 8 = \square \rightarrow$ Y	$5 \times 8 = \square \rightarrow$ K	$3 \times 9 = \square \rightarrow$ D
$6 \times 4 = \square \rightarrow$ S	$9 \times 11 = \square \rightarrow$ T	$12 \times 7 = \square \rightarrow$ C	
$10 \times 5 = \square \rightarrow$ F	$11 \times 8 = \square \rightarrow$ H	$6 \times 1 = \square \rightarrow$ L	
$7 \times 9 = \square \rightarrow$ E	$1 \times 5 = \square \rightarrow$ R	$4 \times 1 = \square \rightarrow$ I	

Scratch space:

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

To search the asteroid field, we divided the security robot squads equally among the spaceships to cover more ground.

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:

$81 \div 9 = \boxed{}$

$1 \div 1 = \boxed{}$

$36 \div 12 = \boxed{}$

$22 \div 2 = \boxed{}$

$25 \div 5 = \boxed{}$

$40 \div 10 = \boxed{}$

$90 \div 9 = \boxed{}$

$24 \div 12 = \boxed{}$

$30 \div 5 = \boxed{}$

$12 \div 1 = \boxed{}$

$7 \div 1 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain ignites a rocket-tail sprint down the field, then clicks magnetic shinguards together to escape.
2. The villain activates a gravity-boost jump to soar high, then flies away using jetpack cleats.
3. The villain ignites a rocket-tail sprint down the field, then flies away using jetpack cleats.
4. The villain uses a tail-whip kick to blast the ball, then blinds the guards with a glow-in-the-dark helmet.
5. The villain shines a laser-eye block to stop shots, then blinds the guards with a glow-in-the-dark helmet.
6. The villain uses a tail-whip kick to blast the ball, then flies away using jetpack cleats.
7. The villain shines a laser-eye block to stop shots, then grabs the trophy with forcefield gloves.
8. The villain shines a laser-eye block to stop shots, then clicks magnetic shinguards together to escape.
9. The villain performs a meteor slam-dunk into the goal, then flies away using jetpack cleats.
10. The villain ignites a rocket-tail sprint down the field, then grabs the trophy with forcefield gloves.
11. The villain performs a meteor slam-dunk into the goal, then deflects the laser grid with cybernetic tail-armor.
12. The villain ignites a rocket-tail sprint down the field, then blinds the guards with a glow-in-the-dark helmet.

Answer Key

The Great Space-Dino Trophy Caper

Culprit: Giga-Gaby

Laser-Eye Block · Magnetic Shinguards · Wears Left-Foot Bandage · Fiery Red Crest · Shiny Gold Medal

Trail: Start 21 → Clue 1 16 → Clue 2 9 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE VILLAIN LACKS CYBERNETIC TAIL ARMOR"

Round 16 to the nearest ten = 20 (T) · Round 1,118 to the nearest hundred = 1100 (N) · Round 662 to the nearest hundred = 700 (O) · Round 2,943 to the nearest thousand = 3000 (S) · Round 4,855 to the nearest thousand = 5000 (H) · Round 8,832 to the nearest thousand = 9000 (E) · Round 1,668 to the nearest thousand = 2000 (V) · Round 27 to the nearest ten = 30 (L) · Round 2,336 to the nearest hundred = 2300 (M) · Round 94 to the nearest ten = 90 (A) · Round 293 to the nearest ten = 290 (B) · Round 232 to the nearest ten = 230 (R) · Round 3,682 to the nearest hundred = 3700 (C) · Round 1,289 to the nearest hundred = 1300 (I) · Round 301 to the nearest hundred = 300 (Y) · Round 114 to the nearest ten = 110 (K)

Clue 2 (Addition): "A LEFT FOOT BANDAGE MARK WAS FOUND"

1508 + 3204 = 4712 (A) · 3289 + 3107 = 6396 (T) · 4912 + 3997 = 8909 (E) · 2765 + 4234 = 6999 (W) · 4435 + 3039 = 7474 (U) · 1219 + 1389 = 2608 (N) · 1463 + 908 = 2371 (G) · 2006 + 1102 = 3108 (B) · 2014 + 1537 = 3551 (M) · 3171 + 1398 = 4569 (D) · 4324 + 4416 = 8740 (K) · 2684 + 3192 = 5876 (S) · 2064 + 2808 = 4872 (F) · 5151 + 4187 = 9338 (O) · 1815 + 1015 = 2830 (L) · 1829 + 2640 = 4469 (R)

Clue 3 (Subtraction): "THEY RAN AFTER A SHINY GOLD MEDAL"

8418 - 2483 = 5935 (T) · 9721 - 1281 = 8440 (L) · 7031 - 139 = 6892 (O) · 9677 - 1908 = 7769 (D) · 5214 - 1754 = 3460 (F) · 10989 - 3708 = 7281 (G) · 3347 - 444 = 2903 (I) · 10093 - 1715 = 8378 (M) · 8005 - 3104 = 4901 (Y) · 9815 - 4030 = 5785 (E) · 7077 - 794 = 6283 (A) · 11875 - 4344 = 7531 (N) · 5510 - 3511 = 1999 (S) · 8855 - 3894 = 4961 (R) · 6130 - 1765 = 4365 (H)

Clue 4 (Multiplication facts (1-12)): "A FIERY RED CREST SHED A FLAKE"

$9 \times 1 = 9$ (A) · $7 \times 8 = 56$ (Y) · $5 \times 8 = 40$ (K) · $3 \times 9 = 27$ (D) · $6 \times 4 = 24$ (S) · $9 \times 11 = 99$ (T) · $12 \times 7 = 84$ (C) · $10 \times 5 = 50$ (F) · $11 \times 8 = 88$ (H) · $6 \times 1 = 6$ (L) · $7 \times 9 = 63$ (E) · $1 \times 5 = 5$ (R) · $4 \times 1 = 4$ (I)

Clue 5 (Division facts (1-12)): surviving statement is box 8 → Giga-Gaby

$81 \div 9 = 9$ · $1 \div 1 = 1$ · $36 \div 12 = 3$ · $22 \div 2 = 11$ · $25 \div 5 = 5$ · $40 \div 10 = 4$ · $90 \div 9 = 10$ · $24 \div 12 = 2$ · $30 \div 5 = 6$ · $12 \div 1 = 12$ · $7 \div 1 = 7$