



The Cosmic Dino-Cup Caper

Grade 4 math · Place value, Word problems, Multiplication, Skip counting, Division · Reading level grades 3-4

Detective: _____ Date: _____

The golden Cat Trophy has disappeared from the VIP locker room! A sneaky player swiped it right before the galactic soccer finals. We need to find the culprit before kickoff!

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 dino-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	SPACE GEAR	SHOOTING HAND	HELMET CREST COLOR	SQUEAKY TOY
Shaq-o-saurus	Meteor Dunk	Laser Visor	Left Clawed	Astro Green Crest	Rubber Fish
Serena Stego	Asteroid Header	Magnetic Gloves	Right Clawed	Solar Orange Crest	Bell Ball
Neymar-o-don	Gravity Dribble	Rocket Tail	Left Clawed	Astro Green Crest	Bell Ball
Tom Brady-saur	Gravity Dribble	Laser Visor	Right Clawed	Neon Blue Crest	Bell Ball
Alex Morgan-odon	Nebula Pass	Gravity Belt	Right Clawed	Neon Blue Crest	Bell Ball
Pele-raptor	Nebula Pass	Magnetic Gloves	Left Clawed	Astro Green Crest	Bell Ball
Kobe Bronto	Gravity Dribble	Jetpack Boots	Left Clawed	Solar Orange Crest	Rubber Fish
Magic Johnson-saur	Comet Kick	Laser Visor	Left Clawed	Neon Blue Crest	Bell Ball
Rex Messi	Gravity Dribble	Laser Visor	Left Clawed	Neon Blue Crest	Bell Ball
Michael Jordan-saur	Nebula Pass	Gravity Belt	Right Clawed	Solar Orange Crest	Bell Ball
Harry Kane-saurus	Asteroid Header	Magnetic Gloves	Left Clawed	Astro Green Crest	Bell Ball
Megan Dino-swift	Meteor Dunk	Gravity Belt	Right Clawed	Astro Green Crest	Rubber Fish
Cristiano Tricera	Gravity Dribble	Magnetic Gloves	Right Clawed	Astro Green Crest	Bell Ball
Luka Don-saur	Meteor Dunk	Gravity Belt	Left Clawed	Astro Green Crest	Squeaky Mouse
Mia Hammosaurus	Comet Kick	Laser Visor	Left Clawed	Astro Green Crest	Rubber Fish
Megan Rapino-dino	Comet Kick	Jetpack Boots	Right Clawed	Astro Green Crest	Rubber Fish
Stephan Currytops	Gravity Dribble	Magnetic Gloves	Right Clawed	Solar Orange Crest	Squeaky Mouse
Giannis Dino-tounmpo	Meteor Dunk	Jetpack Boots	Left Clawed	Neon Blue Crest	Rubber Fish
Mo Salah-tops	Meteor Dunk	Magnetic Gloves	Right Clawed	Neon Blue Crest	Rubber Fish
Yao Ming-o-don	Nebula Pass	Laser Visor	Left Clawed	Astro Green Crest	Bell Ball
Larry Bird-raptor	Gravity Dribble	Magnetic Gloves	Left Clawed	Astro Green Crest	Bell Ball

CLUE 1 Place value

The security computer has a giant number screen. We need to find the value of the hundreds digit to unlock the first clue.

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

T																		T
5000	900	3000	2000	300	3000	30	60	600	70	100	3000	200	100	3000	2000	300	100	5000
40	3000	30	9000	30	9000	100	7000	60	3000	5000	5000	30	400	10				

What is the value of the 5 in 5,700? → **T**

What is the value of the 1 in 124? → **O**

What is the value of the 9 in 9,571? → **R**

What is the value of the 4 in 476? → **I**

What is the value of the 3 in 4,365? → **N**

What is the value of the 3 in 931? → **A**

What is the value of the 2 in 1,273? → **D**

What is the value of the 7 in 47,699? → **C**

What is the value of the 6 in 968? → **K**

What is the value of the 7 in 3,974? → **F**

What is the value of the 4 in 7,340? → **W**

What is the value of the 3 in 3,105? → **E**

What is the value of the 2 in 2,788? → **S**

What is the value of the 6 in 607? → **Y**

What is the value of the 1 in 9,817? → **L**

What is the value of the 9 in 910? → **H**

Scratch space:

CLUE 2

Word problems

Coach Claw needs help counting the practice soccer balls. Solve his sports riddle to find where the thief went.

Solve each problem, then write its letter in the boxes to fill in the missing word.

A witness saw the villain was

L					L				D
77	31	21	17	47	77	79	16	31	

Coach Claw found 42 glowing whistles yesterday and 35 more today. How many glowing whistles in all?

Answer: → **L**

Coach Claw found 3 glowing whistles yesterday and 14 more today. How many glowing whistles in all?

Answer: → **T**

Coach Claw found 12 glowing whistles yesterday and 35 more today. How many glowing whistles in all?

Answer: → **C**

Coach Claw lined up 7 rows of 3 spaceballs. How many spaceballs in all?

Answer: → **F**

There were 104 laser jerseys. 25 were used up. How many laser jerseys are left?

Answer: → **A**

Coach Claw found 19 dino-snacks yesterday and 12 more today. How many dino-snacks in all?

Answer: → **E**

Coach Claw found 9 dino-snacks yesterday and 7 more today. How many dino-snacks in all?

Answer: → **W**

Scratch space:

CLUE 3

Multiplication facts (1-12)

The stadium seats are arranged in equal rows. Multiply the rows of space-cats to find the hidden gear clue.

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

A																	
70	28	144	64	3	18	144	64	3	72	120	18	18	72	70	18	18	

					A									
27	144	35	48	99	70	55	48	120	27	48	20	120	6	

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

$12 \times 12 = \square \rightarrow \boxed{\text{I}}$

$10 \times 12 = \square \rightarrow \boxed{\text{E}}$

$5 \times 11 = \square \rightarrow \boxed{\text{C}}$

$7 \times 5 = \square \rightarrow \boxed{\text{S}}$

$9 \times 11 = \square \rightarrow \boxed{\text{R}}$

$6 \times 8 = \square \rightarrow \boxed{\text{T}}$

$9 \times 3 = \square \rightarrow \boxed{\text{D}}$

$9 \times 8 = \square \rightarrow \boxed{\text{B}}$

$4 \times 7 = \square \rightarrow \boxed{\text{J}}$

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

$3 \times 1 = \square \rightarrow \boxed{\text{G}}$

$6 \times 1 = \square \rightarrow \boxed{\text{M}}$

$2 \times 9 = \square \rightarrow \boxed{\text{L}}$

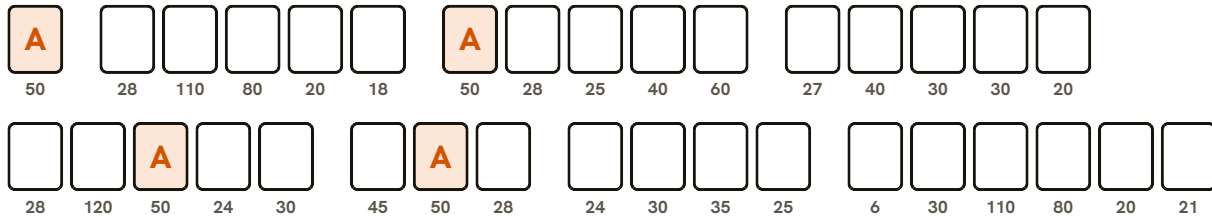
$2 \times 10 = \square \rightarrow \boxed{\text{H}}$

Scratch space:

CLUE 4 Skip counting

We found footprints on the space-court! Count by fives along the starry path to trace the villain's escape route.

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



Skip-count by 10s. Fill the blank: 10, 20, 30, 40, __, 60, 70 → **A**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, __, 90, 100 → **I**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, __, 21, 24 → **Y**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, __, 40, 45 → **F**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 → **T**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, __, 65, 70 → **O**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, __, 130, 140 → **C**

Skip-count by 10s. Fill the blank: 10, 20, __, 40, 50 → **E**

Skip-count by 2s. Fill the blank: 2, 4, __, 8, 10 → **B**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, __, 27, 30 → **L**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, __, 50, 55 → **W**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, __, 30, 32 → **S**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, __, 120, 130 → **H**

Skip-count by 5s. Fill the blank: 5, 10, 15, __, 25, 30 → **N**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, __, 24, 27 → **D**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, __, 30, 33 → **G**

Skip-count by 10s. Fill the blank: 10, 20, 30, __, 50, 60 → **R**

Scratch space:

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

The team needs to share the energy snacks equally. Divide the space-treats to reveal the final piece of evidence.

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:

$72 \div 12 = \boxed{}$

$132 \div 12 = \boxed{}$

$3 \div 1 = \boxed{}$

$2 \div 2 = \boxed{}$

$12 \div 3 = \boxed{}$

$21 \div 3 = \boxed{}$

$80 \div 8 = \boxed{}$

$40 \div 8 = \boxed{}$

$2 \div 1 = \boxed{}$

$40 \div 5 = \boxed{}$

$99 \div 11 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain delivered an asteroid header to open the safe, then spotted the secret escape hatch with a laser visor.
2. The villain delivered an asteroid header to open the safe, then floated up to the ceiling using a gravity belt.
3. The villain delivered an asteroid header to open the safe, then scaled the stadium wall with magnetic gloves.
4. The villain did a meteor dunk over the security gate, then zoomed away using jetpack boots.
5. The villain made a swift nebula pass around the laser grid, then swept away all the footprints with a rocket tail.
6. The villain made a swift nebula pass around the laser grid, then spotted the secret escape hatch with a laser visor.
7. The villain used a gravity dribble to bypass the guards, then floated up to the ceiling using a gravity belt.
8. The villain did a meteor dunk over the security gate, then floated up to the ceiling using a gravity belt.
9. The villain made a swift nebula pass around the laser grid, then zoomed away using jetpack boots.
10. The villain did a meteor dunk over the security gate, then spotted the secret escape hatch with a laser visor.
11. The villain made a swift nebula pass around the laser grid, then scaled the stadium wall with magnetic gloves.
12. The villain used a gravity dribble to bypass the guards, then scaled the stadium wall with magnetic gloves.

Answer Key

The Cosmic Dino-Cup Caper

Culprit: Larry Bird-raptor

Gravity Dribble · Magnetic Gloves · Left Clawed · Astro Green Crest · Bell Ball

Trail: Start 21 → Clue 1 20 → Clue 2 11 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE SNEAKY FOE DOES NOT WEAR A ROCKET TAIL"

What is the value of the 5 in 5,700? = 5000 (T) · What is the value of the 1 in 124? = 100 (O) · What is the value of the 9 in 9,571? = 9000 (R) · What is the value of the 4 in 476? = 400 (I) · What is the value of the 3 in 4,365? = 300 (N) · What is the value of the 3 in 931? = 30 (A) · What is the value of the 2 in 1,273? = 200 (D) · What is the value of the 7 in 47,699? = 7000 (C) · What is the value of the 6 in 968? = 60 (K) · What is the value of the 7 in 3,974? = 70 (F) · What is the value of the 4 in 7,340? = 40 (W) · What is the value of the 3 in 3,105? = 3000 (E) · What is the value of the 2 in 2,788? = 2000 (S) · What is the value of the 6 in 607? = 600 (Y) · What is the value of the 1 in 9,817? = 10 (L) · What is the value of the 9 in 910? = 900 (H)

Clue 2 (Word problems): "LEFT CLAWED"

Coach Claw found 42 glowing whistles yesterday and 35 more today. How many glowing whistles in all? = 77 (L) · Coach Claw found 3 glowing whistles yesterday and 14 more today. How many glowing whistles in all? = 17 (T) · Coach Claw found 12 glowing whistles yesterday and 35 more today. How many glowing whistles in all? = 47 (C) · Coach Claw lined up 7 rows of 3 spaceballs. How many spaceballs in all? = 21 (F) · There were 104 laser jerseys. 25 were used up. How many laser jerseys are left? = 79 (A) · Coach Claw found 19 dino-snacks yesterday and 12 more today. How many dino-snacks in all? = 31 (E) · Coach Claw found 9 dino-snacks yesterday and 7 more today. How many dino-snacks in all? = 16 (W)

Clue 3 (Multiplication facts (1-12)): "A JINGLING BELL BALL DISTRACTED THEM"

$7 \times 10 = 70$ (A) · $12 \times 12 = 144$ (I) · $10 \times 12 = 120$ (E) · $5 \times 11 = 55$ (C) · $7 \times 5 = 35$ (S) · $9 \times 11 = 99$ (R) · $6 \times 8 = 48$ (T) · $9 \times 3 = 27$ (D) · $9 \times 8 = 72$ (B) · $4 \times 7 = 28$ (J) · $8 \times 8 = 64$ (N) · $3 \times 1 = 3$ (G) · $6 \times 1 = 6$ (M) · $2 \times 9 = 18$ (L) · $2 \times 10 = 20$ (H)

Clue 4 (Skip counting): "A SHINY ASTRO GREEN SCALE WAS LEFT BEHIND"

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, __, 60, 70 = 50 (A) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, __, 90, 100 = 80 (I) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, __, 21, 24 = 18 (Y) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, __, 40, 45 = 35 (F) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 = 25 (T) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, __, 65, 70 = 60 (O) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, __, 130, 140 = 120 (C) · Skip-count by 10s. Fill the blank: 10, 20, __, 40, 50 = 30 (E) · Skip-count by 2s. Fill the blank: 2, 4, __, 8, 10 = 6 (B) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, __, 27, 30 = 24 (L) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, __, 50, 55 = 45 (W) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, __, 30, 32 = 28 (S) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, __, 120, 130 = 110 (H) · Skip-count by 5s. Fill the blank: 5, 10, 15, __, 25, 30 = 20 (N) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, __, 24, 27 = 21 (D) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, __, 30, 33 = 27 (G) · Skip-count by 10s. Fill the blank: 10, 20, 30, __, 50, 60 = 40 (R)

Clue 5 (Division facts (1-12)): surviving statement is box 12 → Larry Bird-raptor

$72 \div 12 = 6$ · $132 \div 12 = 11$ · $3 \div 1 = 3$ · $2 \div 2 = 1$ · $12 \div 3 = 4$ · $21 \div 3 = 7$ · $80 \div 8 = 10$ · $40 \div 8 = 5$ · $2 \div 1 = 2$ · $40 \div 5 = 8$ · $99 \div 11 = 9$