The Case of the Missing Cosmic Championship Trophy

Grade 5 math · Fractions of a number, Order of operations, Multiplication, Rounding, Division · Reading level grades 5-6

Detective: _____ **Date:** _____

Someone hijacked the Golden Yarn Trophy right before the Zero-Gravity Galactic Dunk Contest! Detective, analyze the clues to identify the sneaky cosmic cat who pulled off this heist.

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 Sneak is _____

Possible suspects

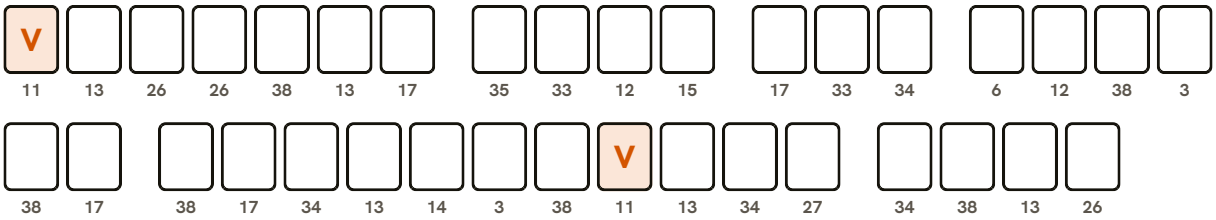
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	DUNK STYLE	SPACE GEAR	DOMINANT PAW	FUR PATTERN	DISTRACTION
LeBron Paws	Meteor Swish	Anti-Gravity Tail	Right-Paw Dominant	Midnight Black	Catnip Scent
Luka Don-kitty	Zero-G Slam	Laser Visor	Left-Paw Dominant	Calico Stripes	Laser Pointer Dot
Kevin Meow-rant	Comet Layup	Rocket Boots	Right-Paw Dominant	Calico Stripes	Squeaky Mouse Toy
Cat-lin Clark	Comet Layup	Laser Visor	Left-Paw Dominant	Calico Stripes	Laser Pointer Dot
Steph Purr	Asteroid Hook	Laser Visor	Left-Paw Dominant	Calico Stripes	Laser Pointer Dot
Kobe Bean Cat	Meteor Swish	Rocket Boots	Left-Paw Dominant	Midnight Black	Catnip Scent
Anthony Davis-cat	Asteroid Hook	Jetpack Suit	Left-Paw Dominant	Calico Stripes	Squeaky Mouse Toy
Damian Lillard-cat	Comet Layup	Anti-Gravity Tail	Right-Paw Dominant	Midnight Black	Squeaky Mouse Toy
Kyrie Purr-ving	Nebula Spin	Laser Visor	Right-Paw Dominant	Calico Stripes	Catnip Scent
Charles Bark-cat	Zero-G Slam	Rocket Boots	Left-Paw Dominant	Midnight Black	Laser Pointer Dot
Tim Dun-cat	Zero-G Slam	Rocket Boots	Right-Paw Dominant	Calico Stripes	Laser Pointer Dot
Sue Bird-cat	Nebula Spin	Jetpack Suit	Left-Paw Dominant	Calico Stripes	Laser Pointer Dot
Allen Iver-paw	Asteroid Hook	Magnetic Mitts	Left-Paw Dominant	Calico Stripes	Squeaky Mouse Toy
Jayson Ta-cat	Comet Layup	Magnetic Mitts	Left-Paw Dominant	Calico Stripes	Squeaky Mouse Toy
Nikola Joki-cat	Meteor Swish	Anti-Gravity Tail	Right-Paw Dominant	Tabby Swirls	Catnip Scent
Jimmy Purr-tler	Meteor Swish	Jetpack Suit	Left-Paw Dominant	Midnight Black	Squeaky Mouse Toy
Meow-ming	Asteroid Hook	Laser Visor	Left-Paw Dominant	Midnight Black	Catnip Scent
Vince Claw-ter	Asteroid Hook	Anti-Gravity Tail	Left-Paw Dominant	Calico Stripes	Laser Pointer Dot
Devin Paws-ker	Zero-G Slam	Laser Visor	Right-Paw Dominant	Midnight Black	Catnip Scent
Dirk No-whiskers	Meteor Swish	Laser Visor	Right-Paw Dominant	Midnight Black	Laser Pointer Dot
Giannis Anteto-Cat	Nebula Spin	Rocket Boots	Right-Paw Dominant	Calico Stripes	Catnip Scent

CLUE 1 Fractions of a number

> Head Coach Whiskers checked the arena ticket roster and found that a fraction of the fans were wearing matching jerseys, pointing to a clue.

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



1/8 of 88 = ☐ → V

1/6 of 78 = ☐ → I

1/6 of 72 = ☐ → E

5/10 of 54 = ☐ → Y

2/6 of 99 = ☐ → O

2/4 of 34 = ☐ → N

1/4 of 56 = ☐ → G

2/10 of 15 = ☐ → R

3/10 of 50 = ☐ → S

4/10 of 85 = ☐ → T

5/10 of 52 = ☐ → L

7/10 of 50 = ☐ → D

3/4 of 8 = ☐ → W

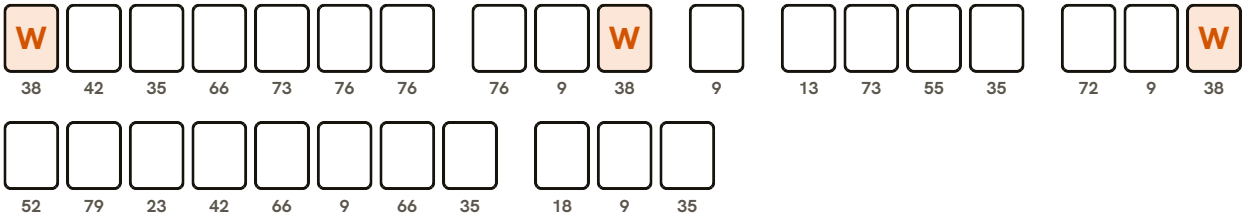
2/3 of 57 = ☐ → A

Scratch space:

CLUE 2 Order of operations

The stadium computer ran a multi-step diagnostic sequence to unlock the locker room security log.

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



22 + 8 × 2 = ☐ → W

2 × 6 - 3 = ☐ → A

67 + 2 × 3 = ☐ → E

6 × 11 - 14 = ☐ → D

7 × 6 - 7 = ☐ → T

6 × 8 - 30 = ☐ → C

8 × 10 - 25 = ☐ → F

40 + 6 × 6 = ☐ → S

5 × 10 - 27 = ☐ → M

69 + 2 × 5 = ☐ → O

62 + 2 × 2 = ☐ → N

12 × 4 - 6 = ☐ → I

8 × 10 - 8 = ☐ → P

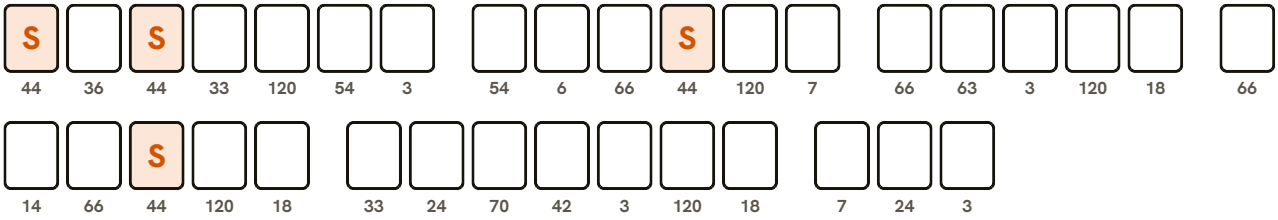
5 × 8 - 27 = ☐ → L

Scratch space:

CLUE 3 Multiplication facts (1-12)

The court maintenance bots arranged rows of cosmic basketballs to calculate the missing court inventory.

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



11 × 4 = ☐ → S

9 × 7 = ☐ → F

11 × 3 = ☐ → P

9 × 6 = ☐ → C

6 × 7 = ☐ → N

12 × 2 = ☐ → O

1 × 3 = ☐ → T

12 × 10 = ☐ → E

7 × 10 = ☐ → I

2 × 3 = ☐ → H

6 × 11 = ☐ → A

2 × 7 = ☐ → L

6 × 3 = ☐ → R

9 × 4 = ☐ → U

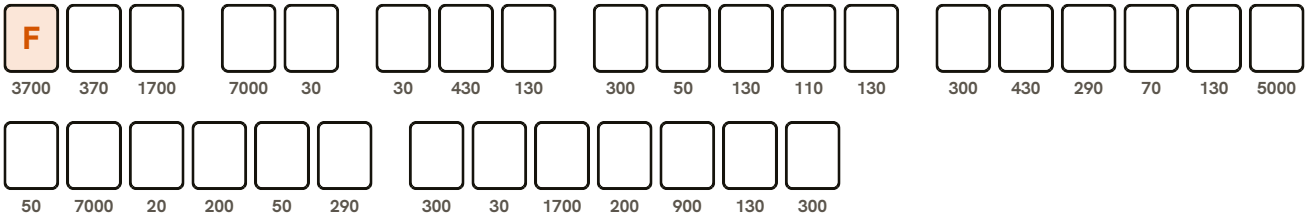
1 × 7 = ☐ → D

Scratch space:

CLUE 4 Rounding

The stadium radar only gives rounded estimates of high-speed feline dunks, revealing crucial evidence.

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



Round 3,657 to the nearest hundred ☐ → F

Round 889 to the nearest hundred ☐ → P

Round 133 to the nearest ten ☐ → E

Round 433 to the nearest ten ☐ → H

Round 217 to the nearest hundred ☐ → I

Round 23 to the nearest ten ☐ → L

Round 342 to the nearest hundred ☐ → S

Round 7,274 to the nearest thousand ☐ → A

Round 366 to the nearest ten ☐ → U

Round 34 to the nearest ten ☐ → T

Round 1,742 to the nearest hundred ☐ → R

Round 291 to the nearest ten ☐ → O

Round 47 to the nearest ten ☐ → C

Round 72 to the nearest ten ☐ → W

Round 112 to the nearest ten ☐ → N

Round 5,350 to the nearest thousand ☐ → D

Scratch space:

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

> The referees split the total stolen shiny court tokens equally among the four team captains to narrow the list.

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:

40 ÷ 5 = ☐	81 ÷ 9 = ☐	77 ÷ 11 = ☐	11 ÷ 11 = ☐	11 ÷ 1 = ☐
6 ÷ 1 = ☐	30 ÷ 6 = ☐	8 ÷ 4 = ☐	60 ÷ 6 = ☐	144 ÷ 12 = ☐
40 ÷ 10 = ☐				

Step 2 - cross out the sentence with each answer:

1. The villain drives for a comet layup, then balances with an anti-gravity tail.
2. The villain sinks an asteroid hook, then balances with an anti-gravity tail.
3. The villain sinks an asteroid hook, then scans the court with a laser visor.
4. The villain drives for a comet layup, then zooms off with a jetpack suit.
5. The villain performs a zero-g slam, then activates rocket boots.
6. The villain executes a nebula spin, then balances with an anti-gravity tail.
7. The villain performs a zero-g slam, then scans the court with a laser visor.
8. The villain drives for a comet layup, then scans the court with a laser visor.
9. The villain executes a nebula spin, then zooms off with a jetpack suit.
10. The villain performs a zero-g slam, then zooms off with a jetpack suit.
11. The villain drives for a comet layup, then grabs the ball with magnetic mitts.
12. The villain drives for a comet layup, then activates rocket boots.

TEACHER / PARENT

Answer Key

The Case of the Missing Cosmic Championship Trophy

Culprit: Steph Purr

Asteroid Hook · Laser Visor · Left-Paw Dominant · Calico Stripes · Laser Pointer Dot

Trail: Start 21 → Clue 1 17 → Clue 2 11 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Fractions of a number): "VILLAIN DOES NOT WEAR AN ANTIGRAVITY TAIL"

1/8 of 88 = 11 (V) · 1/6 of 78 = 13 (I) · 1/6 of 72 = 12 (E) · 5/10 of 54 = 27 (Y) · 2/6 of 99 = 33 (O) · 2/4 of 34 = 17 (N) · 1/4 of 56 = 14 (G) · 2/10 of 15 = 3 (R) · 3/10 of 50 = 15 (S) · 4/10 of 85 = 34 (T) · 5/10 of 52 = 26 (L) · 7/10 of 50 = 35 (D) · 3/4 of 8 = 6 (W) · 2/3 of 57 = 38 (A)

Clue 2 (Order of operations): "WITNESS SAW A LEFT PAW DOMINANT CAT"

22 + 8 × 2 = 38 (W) · 2 × 6 - 3 = 9 (A) · 67 + 2 × 3 = 73 (E) · 6 × 11 - 14 = 52 (D) · 7 × 6 - 7 = 35 (T) · 6 × 8 - 30 = 18 (C) · 8 × 10 - 25 = 55 (F) · 40 + 6 × 6 = 76 (S) · 5 × 10 - 27 = 23 (M) · 69 + 2 × 5 = 79 (O) · 62 + 2 × 2 = 66 (N) · 12 × 4 - 6 = 42 (I) · 8 × 10 - 8 = 72 (P) · 5 × 8 - 27 = 13 (L)

Clue 3 (Multiplication facts (1-12)): "SUSPECT CHASED AFTER A LASER POINTER DOT"

11 × 4 = 44 (S) · 9 × 7 = 63 (F) · 11 × 3 = 33 (P) · 9 × 6 = 54 (C) · 6 × 7 = 42 (N) · 12 × 2 = 24 (O) · 1 × 3 = 3 (T) · 12 × 10 = 120 (E) · 7 × 10 = 70 (I) · 2 × 3 = 6 (H) · 6 × 11 = 66 (A) · 2 × 7 = 14 (L) · 6 × 3 = 18 (R) · 9 × 4 = 36 (U) · 1 × 7 = 7 (D)

Clue 4 (Rounding): "FUR AT THE SCENE SHOWED CALICO STRIPES"

Round 3,657 to the nearest hundred = 3700 (F) · Round 889 to the nearest hundred = 900 (P) · Round 133 to the nearest ten = 130 (E) · Round 433 to the nearest ten = 430 (H) · Round 217 to the nearest hundred = 200 (I) · Round 23 to the nearest ten = 20 (L) · Round 342 to the nearest hundred = 300 (S) · Round 7,274 to the nearest thousand = 7000 (A) · Round 366 to the nearest ten = 370 (U) · Round 34 to the nearest ten = 30 (T) · Round 1,742 to the nearest hundred = 1700 (R) · Round 291 to the nearest ten = 290 (O) · Round 47 to the nearest ten = 50 (C) · Round 72 to the nearest ten = 70 (W) · Round 112 to the nearest ten = 110 (N) · Round 5,350 to the nearest thousand = 5000 (D)

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

40 ÷ 5 = 8 · 81 ÷ 9 = 9 · 77 ÷ 11 = 7 · 11 ÷ 11 = 1 · 11 ÷ 1 = 11 · 6 ÷ 1 = 6 · 30 ÷ 6 = 5 · 8 ÷ 4 = 2 · 60 ÷ 6 = 10 · 144 ÷ 12 = 12 · 40 ÷ 10 = 4