

The Cosmic Cup Heist

Grade 1 math · Addition, Subtraction, Skip counting, Place value, Missing addends · Reading level grades 3-4

Detective: _____ Date: _____

The Golden Soccer-Ball Trophy has vanished from the Astro-Cat Dome! A sneaky space cat snuck into the locker rooms during the halftime show. Now we must use our math scanners to find the thief among the galactic players.

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 sneaky space cat is _____

Possible suspects

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

NAME	SOCCER SKILL	SPACE GEAR	DOMINANT PAW	FUR COLOR	DISTRACTION
Whisker West-brook	gravity dribbling	rocket-booster boots	right-pawed shoot	neon orange fur	spritz water bottles
Harry Kitten	laser-pointer chasing	diamond armor	left-pawed shoot	neon orange fur	laser pointer beams
Mo Sal-claw	hyper-jumping	hover-board glider	left-pawed shoot	neon orange fur	squeaky dog toys
Claw-de Mbappe	laser-pointer chasing	diamond armor	right-pawed shoot	neon orange fur	squeaky dog toys
Miaw Hamm	ender-teleporting	diamond armor	right-pawed shoot	neon orange fur	squeaky dog toys
Kobe Cat	yarn-ball blocking	rocket-booster boots	left-pawed shoot	neon orange fur	spritz water bottles
Steph Furry	hyper-jumping	diamond armor	right-pawed shoot	neon orange fur	squeaky dog toys
Cat-erine De-mew	hyper-jumping	zero-g jetpack	right-pawed shoot	cosmic blue fur	squeaky dog toys
Larry Bird-catcher	ender-teleporting	rocket-booster boots	right-pawed shoot	neon orange fur	spritz water bottles
Leo Meowssi	laser-pointer chasing	zero-g jetpack	left-pawed shoot	cosmic blue fur	squeaky dog toys
Giannis Anteto-cat	laser-pointer chasing	hover-board glider	right-pawed shoot	emerald green fur	laser pointer beams
Paw-lo Maldini	hyper-jumping	rocket-booster boots	right-pawed shoot	neon orange fur	squeaky dog toys
Virgil van-Cat	laser-pointer chasing	obsidian helmet	right-pawed shoot	cosmic blue fur	laser pointer beams
Jude Bel-mew	yarn-ball blocking	hover-board glider	right-pawed shoot	cosmic blue fur	squeaky dog toys
Ney-mew	ender-teleporting	obsidian helmet	right-pawed shoot	emerald green fur	laser pointer beams
Cristiano Ronald-cat	gravity dribbling	zero-g jetpack	right-pawed shoot	neon orange fur	squeaky dog toys
Son Heung-min-cat	gravity dribbling	hover-board glider	right-pawed shoot	neon orange fur	spritz water bottles
Purr-ly Jordan	yarn-ball blocking	diamond armor	left-pawed shoot	emerald green fur	laser pointer beams
LeBron Purr	laser-pointer chasing	rocket-booster boots	right-pawed shoot	cosmic blue fur	squeaky dog toys
Kevin De-purr	hyper-jumping	zero-g jetpack	right-pawed shoot	emerald green fur	spritz water bottles
Luka Don-hiss	gravity dribbling	obsidian helmet	left-pawed shoot	cosmic blue fur	spritz water bottles

CLUE 1 Addition

A friendly robot sweeps the locker room floors. It counts the muddy footprints. If we add the prints from the left side and the right side together, we can unlock the first safe!

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

T 41810	T 41891011	165102	T 1554	821020
T 141041220193				

1 + 3 = → T	10 + 5 = → N	6 + 4 = → E	8 + 4 = → P
1 + 1 = → S	8 + 6 = → J	8 + 8 = → D	13 + 5 = → H
1 + 2 = → K	7 + 12 = → C	13 + 7 = → A	
1 + 4 = → O	3 + 6 = → I	6 + 5 = → F	4 + 4 = → U

Scratch space:

CLUE 2

The stadium screen shows how many soccer balls are left. The referee started with a full bag of balls, but some were kicked into space. Subtract the lost balls to get our next code.

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

A 2x10 grid of boxes. The top row contains the following sequence: an orange box with 'T', an empty box, an empty box, an empty box, an empty box, an empty box, an orange box with 'T', an empty box, an empty box, an empty box, an empty box, an empty box, an orange box with 'T', an empty box, an empty box, an empty box. The bottom row contains: an empty box, an empty box, an empty box, an empty box, an empty box, an empty box, an orange box with 'T', an empty box, an empty box, an empty box, an empty box, an empty box, an empty box, an empty box, an empty box, an empty box. Below each box is a number.

T						T						T							
5	17	11		1	9	16	17	5	18	3	15	18	1	9	7	5	15	3	10
							T												
10	11	11	7	12	7	5	17	11	2	3	14	14							

7 - 2 = → **T**

20 - 2 = → **P**

12 - 1 = → **E**

17 - 2 = → **W**

$3 - 2 = \boxed{} \rightarrow \boxed{\text{R}}$

11 - 1 = → **S**

$$18 - 1 = \boxed{} \rightarrow \boxed{\text{H}}$$

19 - 3 = → **G**

$7 - 5 = \square \rightarrow \boxed{\text{B}}$

$7 - 4 = \square \rightarrow \boxed{\mathbf{A}}$

11 - 2 = →

8 - 1 = → **N**

20 - 6 = → **L**

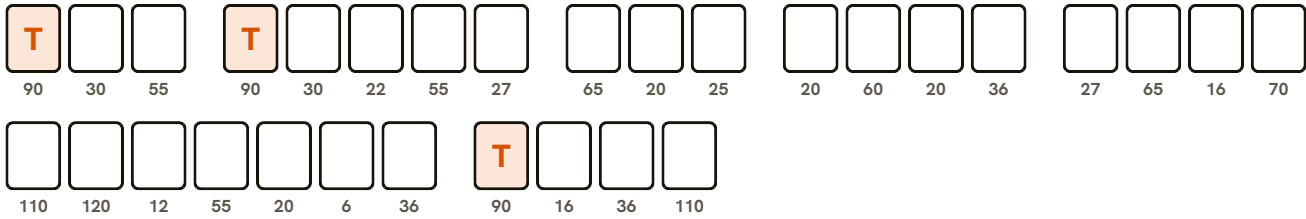
15 - 3 = →

Scratch space:

CLUE 3 Skip counting

We find a path of glowing obsidian blocks leading toward the rocket pad. The blocks are numbered by twos. Let us count by twos to find the missing block number!

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, 50, 60, 70, 80, __, 100, 110 → **T**

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

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, __, 39, 42 → **Y**

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, __, 60, 65 → **E**

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

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 → **R**

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

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, __, 80, 90 → **M**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, __, 14, 16 → **U**

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

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, __, 18, 20 → **O**

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

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

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

Scratch space:

CLUE 4 Place value

The team scanner counts the cosmic energy level. It shows a number with tens and ones. Look at the tens place to find out which wire to cut next!

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

N			N				N												
38	34	94	38	94	70	58	38	28	34	40	45	70	48	58	84				
					N					N									
87	34	40	14	94	38	14	49	34	38	34	14								

What number has 3 tens and 8 ones? → **N**

What number has 7 tens and 0 ones? → **R**

What number has 2 tens and 8 ones? → **G**

What number has 4 tens and 5 ones? → **U**

What number has 4 tens and 8 ones? → **W**

What number has 4 tens and 0 ones? → **F**

What number has 4 tens and 9 ones? → **H**

What number has 8 tens and 7 ones? → **L**

What number has 8 tens and 4 ones? → **S**

What number has 3 tens and 4 ones? → **E**

What number has 1 ten and 4 ones? → **T**

What number has 5 tens and 8 ones? → **A**

What number has 9 tens and 4 ones? → **O**

Scratch space:

CLUE 5**Missing addends - the last clue**

We need ten fuel canisters to start the security camera. We only have some of them. Let us figure out how many more canisters we must find to reach ten!

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:

$9 + \underline{\quad} = 12$

$7 + \underline{\quad} = 18$

$10 + \underline{\quad} = 20$

$4 + \underline{\quad} = 6$

$6 + \underline{\quad} = 18$

$4 + \underline{\quad} = 11$

$8 + \underline{\quad} = 12$

$9 + \underline{\quad} = 10$

$6 + \underline{\quad} = 11$

$6 + \underline{\quad} = 15$

$2 + \underline{\quad} = 8$

Step 2 - cross out the sentence with each answer:

1. The villain teleported past the goalie, then activated rocket-booster boots.
2. The villain blocked the exit with giant yarn, then put on a heavy obsidian helmet.
3. The villain jumped over the stadium roof, then crafted strong diamond armor.
4. The villain chased a laser into the vault, then put on a heavy obsidian helmet.
5. The villain blocked the exit with giant yarn, then crafted strong diamond armor.
6. The villain teleported past the goalie, then put on a heavy obsidian helmet.
7. The villain blocked the exit with giant yarn, then activated rocket-booster boots.
8. The villain jumped over the stadium roof, then activated rocket-booster boots.
9. The villain teleported past the goalie, then zipped away on a hover-board glider.
10. The villain chased a laser into the vault, then crafted strong diamond armor.
11. The villain teleported past the goalie, then crafted strong diamond armor.
12. The villain chased a laser into the vault, then zipped away on a hover-board glider.

Answer Key

The Cosmic Cup Heist

Culprit: Paw-lo Maldini

hyper-jumping · rocket-boosters boots · right-pawed shoot · neon orange fur · squeaky dog toys

Trail: Start 21 → Clue 1 17 → Clue 2 12 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE THIEF DOES NOT USE A JETPACK"

$1 + 3 = 4$ (T) · $10 + 5 = 15$ (N) · $6 + 4 = 10$ (E) · $8 + 4 = 12$ (P) · $1 + 1 = 2$ (S) · $8 + 6 = 14$ (J) · $8 + 8 = 16$ (D) · $13 + 5 = 18$ (H) · $1 + 2 = 3$ (K) · $7 + 12 = 19$ (C) · $13 + 7 = 20$ (A) · $1 + 4 = 5$ (O) · $3 + 6 = 9$ (I) · $6 + 5 = 11$ (F) · $4 + 4 = 8$ (U)

Clue 2 (Subtraction): "THE RIGHT PAW PRINT WAS SEEN ON THE BALL"

$7 - 2 = 5$ (T) · $20 - 2 = 18$ (P) · $12 - 1 = 11$ (E) · $17 - 2 = 15$ (W) · $3 - 2 = 1$ (R) · $11 - 1 = 10$ (S) · $18 - 1 = 17$ (H) · $19 - 3 = 16$ (G) · $7 - 5 = 2$ (B) · $7 - 4 = 3$ (A) · $11 - 2 = 9$ (I) · $8 - 1 = 7$ (N) · $20 - 6 = 14$ (L) · $15 - 3 = 12$ (O)

Clue 3 (Skip counting): "THE THIEF RAN AWAY FROM SQUEAKY TOYS"

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, __, 100, 110 = 90 (T) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, __, 30, 33 = 27 (F) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, __, 39, 42 = 36 (Y) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, __, 130, 140 = 120 (Q) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, __, 60, 65 = 55 (E) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, __, 24, 26 = 22 (I) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, __, 120, 130 = 110 (S) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 = 65 (R) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, __, 22, 24 = 20 (A) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, __, 80, 90 = 70 (M) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, __, 14, 16 = 12 (U) · Skip-count by 10s. Fill the blank: 10, 20, __, 40, 50 = 30 (H) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, __, 18, 20 = 16 (O) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 = 25 (N) · Skip-count by 2s. Fill the blank: 2, 4, __, 8, 10 = 6 (K) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, __, 65, 70 = 60 (W)

Clue 4 (Place value): "NEON ORANGE FUR WAS LEFT ON THE NET"

What number has 3 tens and 8 ones? = 38 (N) · What number has 7 tens and 0 ones? = 70 (R) · What number has 2 tens and 8 ones? = 28 (G) · What number has 4 tens and 5 ones? = 45 (U) · What number has 4 tens and 8 ones? = 48 (W) · What number has 4 tens and 0 ones? = 40 (F) · What number has 4 tens and 9 ones? = 49 (H) · What number has 8 tens and 7 ones? = 87 (L) · What number has 8 tens and 4 ones? = 84 (S) · What number has 3 tens and 4 ones? = 34 (E) · What number has 1 ten and 4 ones? = 14 (T) · What number has 5 tens and 8 ones? = 58 (A) · What number has 9 tens and 4 ones? = 94 (O)

Clue 5 (Missing addends): surviving statement is box 8 → Paw-lo Maldini

$9 + \underline{\quad} = 12 = 3$ · $7 + \underline{\quad} = 18 = 11$ · $10 + \underline{\quad} = 20 = 10$ · $4 + \underline{\quad} = 6 = 2$ · $6 + \underline{\quad} = 18 = 12$ · $4 + \underline{\quad} = 11 = 7$ · $8 + \underline{\quad} = 12 = 4$ · $9 + \underline{\quad} = 10 = 1$ · $6 + \underline{\quad} = 11 = 5$ · $6 + \underline{\quad} = 15 = 9$ · $2 + \underline{\quad} = 8 = 6$