



The Golden Cup Mystery

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

Detective: _____ Date: _____

The golden championship trophy has been swapped with a plastic replica! The head referee needs your help to scan the superstar player lineup and catch the trickster.

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 Trophy Thief 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	LUCKY GEAR	PREFERRED FOOT	HAIR STYLE	STADIUM WEAKNESS
Tyler Adams	rainbow flick	striped sweatband	left footed	curly hair	loud cheering
Ruben Dias	diving header	gold cleats	left footed	curly hair	bright floodlights
Christian Pulisic	diving header	gold cleats	left footed	buzzed hair	slippery grass
Enzo Fernandez	no look pass	lucky mascot charm	right footed	buzzed hair	loud cheering
Diogo Costa	bicycle kick	lucky mascot charm	right footed	spiky hair	loud cheering
Joao Cancelo	rainbow flick	lucky mascot charm	right footed	buzzed hair	bright floodlights
Antonee Robinson	diving header	grippy gloves	right footed	spiky hair	loud cheering
Timothy Weah	no look pass	lucky mascot charm	left footed	buzzed hair	slippery grass
Yunus Musah	diving header	striped sweatband	left footed	spiky hair	loud cheering
Lautaro Martinez	rainbow flick	grippy gloves	right footed	curly hair	slippery grass
Angel Di Maria	knuckleball shot	gold cleats	left footed	spiky hair	loud cheering
Bruno Fernandes	knuckleball shot	neon shin guards	left footed	spiky hair	bright floodlights
Matt Turner	knuckleball shot	gold cleats	left footed	buzzed hair	bright floodlights
Lionel Messi	knuckleball shot	neon shin guards	left footed	curly hair	bright floodlights
Emiliano Martinez	no look pass	lucky mascot charm	left footed	spiky hair	loud cheering
Joao Felix	knuckleball shot	lucky mascot charm	right footed	spiky hair	loud cheering
Rafael Leao	rainbow flick	striped sweatband	right footed	buzzed hair	bright floodlights
Cristiano Ronaldo	diving header	striped sweatband	right footed	curly hair	loud cheering
Julian Alvarez	knuckleball shot	grippy gloves	left footed	spiky hair	loud cheering
Rodrigo De Paul	bicycle kick	striped sweatband	left footed	spiky hair	loud cheering
Alexis Mac Allister	diving header	striped sweatband	left footed	spiky hair	bright floodlights

CLUE 1 Rounding

The laser sensor on the trophy case only shows rounded numbers. We need to round the scanner readout to find our first clue.

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

T			T											T				
430	370	2000	430	370	700	2000	2900	9000	900	2000	300	130	900	430	370	30	110	2000
												T						
30	70	3000	290	1700	500	4300	30	300	290	900	430	290	370	30	1300	4300		

Round 434 to the nearest ten → **T**

Round 30 to the nearest ten → **A**

Round 1,715 to the nearest hundred → **K**

Round 303 to the nearest hundred → **S**

Round 899 to the nearest hundred → **O**

Round 2,906 to the nearest hundred → **F**

Round 71 to the nearest ten → **L**

Round 1,303 to the nearest hundred → **R**

Round 126 to the nearest ten → **N**

Round 371 to the nearest ten → **H**

Round 112 to the nearest ten → **V**

Round 294 to the nearest ten → **C**

Round 2,486 to the nearest thousand → **E**

Round 652 to the nearest hundred → **I**

Round 4,293 to the nearest hundred → **M**

Round 3,269 to the nearest thousand → **U**

Round 464 to the nearest hundred → **Y**

Round 9,374 to the nearest thousand → **D**

Scratch space:

CLUE 2 **Addition**

We found soccer ball tallies in the locker rooms. Let us add up all the training logs to see what we can find.

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

The diagram consists of two rows of boxes, each representing a sequence of numbers. The top row has 16 boxes, and the bottom row has 12 boxes. Below each box is a number. Some boxes are shaded orange and contain the letter 'T', indicating a specific state or value.

Top Row:

T								T										T	
4955	3351	6167	3671	4860	3671	9558	6167	7020	4955	9219	6569	7020	9219	6167	7600	2185	6569	4955	3351

Bottom Row:

T								T				T
4955	3351	6167	6569	2415	9414	6167	7669	4955	7669	6982	6982	4955

$$2984 + 1971 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$1663 + 3197 = \boxed{} \rightarrow \boxed{\text{U}}$$

$$2597 + 5072 = \boxed{} \rightarrow \boxed{\text{F}}$$

$$3964 + 3018 = \boxed{} \rightarrow \boxed{0}$$

$1354 + 831 = \boxed{} \rightarrow \boxed{\text{W}}$

$$5159 + 2441 = \boxed{} \rightarrow \boxed{\text{D}}$$

$$3263 + 6295 = \boxed{} \rightarrow \boxed{\text{P}}$$

$$6213 + 3201 = \boxed{} \rightarrow \boxed{\text{L}}$$

$$4293 + 2727 = \boxed{} \rightarrow \boxed{\text{C}}$$

$$1294 + 2377 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$1738 + 1613 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$1528 + 887 = \boxed{} \rightarrow \boxed{\text{R}}$$

$$3676 + 2893 = \boxed{} \rightarrow \boxed{\text{I}}$$

$$3318 + 2849 = \boxed{} \rightarrow \boxed{\text{E}}$$

$6144 + 3075 = \boxed{} \rightarrow \boxed{\text{K}}$

Scratch space:

CLUE 3
Subtraction

The equipment manager is missing some jerseys from the supply room. Subtract the remaining shirts to find the secret message.

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

T																
3911	6054	6700	6772	3856	7964	7731	5387	6054	6700	6700	1129	4555	4881	5217		

								T			
5387	3856	4881	7668	7964	5161	6700	7731	3911	6054	6700	1013

$7200 - 3289 = \square \rightarrow \boxed{\text{T}}$

$11030 - 4258 = \square \rightarrow \boxed{\text{L}}$

$6704 - 1487 = \square \rightarrow \boxed{\text{G}}$

$8665 - 3504 = \square \rightarrow \boxed{\text{S}}$

$7044 - 3188 = \square \rightarrow \boxed{\text{O}}$

$11832 - 4101 = \square \rightarrow \boxed{\text{D}}$

$1136 - 123 = \square \rightarrow \boxed{\text{M}}$

$5033 - 3904 = \square \rightarrow \boxed{\text{R}}$

$7232 - 1178 = \square \rightarrow \boxed{\text{H}}$

$6805 - 1418 = \square \rightarrow \boxed{\text{C}}$

$9518 - 1554 = \square \rightarrow \boxed{\text{U}}$

$9371 - 2671 = \square \rightarrow \boxed{\text{E}}$

$6461 - 1906 = \square \rightarrow \boxed{\text{I}}$

$7842 - 174 = \square \rightarrow \boxed{\text{F}}$

$9751 - 4870 = \square \rightarrow \boxed{\text{N}}$

Scratch space:

CLUE 4
Multiplication facts (1-12)

The practice cones are set up in equal rows across the stadium turf. Multiply the rows of cones to reveal a clue.

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

W																		
88	40	50	77	44	2	56	36	90	81	70	120	45	35	36	70	33	77	2
72	35	40	72	33	77	81	35	45	28	36	90	40						

$8 \times 11 = \square \rightarrow \text{W}$

$1 \times 2 = \square \rightarrow \text{N}$

$6 \times 6 = \square \rightarrow \text{A}$

$10 \times 12 = \square \rightarrow \text{K}$

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

$5 \times 10 = \square \rightarrow \text{F}$

$3 \times 11 = \square \rightarrow \text{R}$

$9 \times 9 = \square \rightarrow \text{P}$

$8 \times 9 = \square \rightarrow \text{T}$

$7 \times 4 = \square \rightarrow \text{C}$

$10 \times 9 = \square \rightarrow \text{S}$

$11 \times 4 = \square \rightarrow \text{U}$

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

$9 \times 5 = \square \rightarrow \text{Y}$

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

$7 \times 11 = \square \rightarrow \text{O}$

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

Scratch space:

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

A box of energy bars was shared equally among the team squads. Divide the snacks to get the final clue.

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:

$120 \div 10 = \boxed{}$

$70 \div 7 = \boxed{}$

$90 \div 10 = \boxed{}$

$9 \div 9 = \boxed{}$

$18 \div 6 = \boxed{}$

$110 \div 10 = \boxed{}$

$42 \div 7 = \boxed{}$

$24 \div 3 = \boxed{}$

$25 \div 5 = \boxed{}$

$48 \div 12 = \boxed{}$

$18 \div 9 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain scores with a diving header, then clutches their lucky mascot charm.
2. The villain performs a wild bicycle kick, then grabs the golden cup with grippy gloves.
3. The villain does a sneaky rainbow flick, then grabs the golden cup with grippy gloves.
4. The villain tricks the guard with a no look pass, then dashes away in shiny gold cleats.
5. The villain tricks the guard with a no look pass, then clutches their lucky mascot charm.
6. The villain blasts a curved knuckleball shot, then clutches their lucky mascot charm.
7. The villain blasts a curved knuckleball shot, then grabs the golden cup with grippy gloves.
8. The villain performs a wild bicycle kick, then flashes their bright neon shin guards.
9. The villain scores with a diving header, then adjusts their striped sweatband.
10. The villain blasts a curved knuckleball shot, then dashes away in shiny gold cleats.
11. The villain scores with a diving header, then dashes away in shiny gold cleats.
12. The villain performs a wild bicycle kick, then adjusts their striped sweatband.

Answer Key

The Golden Cup Mystery

Culprit: Julian Alvarez

knuckleball shot · grippy gloves · left footed · spiky hair · loud cheering

Trail: Start 21 → Clue 1 15 → Clue 2 11 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE THIEF DOES NOT HAVE A LUCKY MASCOT CHARM"

Round 434 to the nearest ten = 430 (T) · Round 30 to the nearest ten = 30 (A) · Round 1,715 to the nearest hundred = 1700 (K) · Round 303 to the nearest hundred = 300 (S) · Round 899 to the nearest hundred = 900 (O) · Round 2,906 to the nearest hundred = 2900 (F) · Round 71 to the nearest ten = 70 (L) · Round 1,303 to the nearest hundred = 1300 (R) · Round 126 to the nearest ten = 130 (N) · Round 371 to the nearest ten = 370 (H) · Round 112 to the nearest ten = 110 (V) · Round 294 to the nearest ten = 290 (C) · Round 2,486 to the nearest thousand = 2000 (E) · Round 652 to the nearest hundred = 700 (I) · Round 4,293 to the nearest hundred = 4300 (M) · Round 3,269 to the nearest thousand = 3000 (U) · Round 464 to the nearest hundred = 500 (Y) · Round 9,374 to the nearest thousand = 9000 (D)

Clue 2 (Addition): "THE SUSPECT KICKED WITH THEIR LEFT FOOT"

$2984 + 1971 = 4955$ (T) · $1663 + 3197 = 4860$ (U) · $2597 + 5072 = 7669$ (F) · $3964 + 3018 = 6982$ (O) · $1354 + 831 = 2185$ (W) · $5159 + 2441 = 7600$ (D) · $3263 + 6295 = 9558$ (P) · $6213 + 3201 = 9414$ (L) · $4293 + 2727 = 7020$ (C) · $1294 + 2377 = 3671$ (S) · $1738 + 1613 = 3351$ (H) · $1528 + 887 = 2415$ (R) · $3676 + 2893 = 6569$ (I) · $3318 + 2849 = 6167$ (E) · $6144 + 3075 = 9219$ (K)

Clue 3 (Subtraction): "THE LOUD CHEERING CONFUSED THEM"

$7200 - 3289 = 3911$ (T) · $11030 - 4258 = 6772$ (L) · $6704 - 1487 = 5217$ (G) · $8665 - 3504 = 5161$ (S) · $7044 - 3188 = 3856$ (O) · $11832 - 4101 = 7731$ (D) · $1136 - 123 = 1013$ (M) · $5033 - 3904 = 1129$ (R) · $7232 - 1178 = 6054$ (H) · $6805 - 1418 = 5387$ (C) · $9518 - 1554 = 7964$ (U) · $9371 - 2671 = 6700$ (E) · $6461 - 1906 = 4555$ (I) · $7842 - 174 = 7668$ (F) · $9751 - 4870 = 4881$ (N)

Clue 4 (Multiplication facts (1-12)): "WE FOUND A SPIKY HAIR ON THE TROPHY CASE"

$8 \times 11 = 88$ (W) · $1 \times 2 = 2$ (N) · $6 \times 6 = 36$ (A) · $10 \times 12 = 120$ (K) · $7 \times 5 = 35$ (H) · $5 \times 10 = 50$ (F) · $3 \times 11 = 33$ (R) · $9 \times 9 = 81$ (P) · $8 \times 9 = 72$ (T) · $7 \times 4 = 28$ (C) · $10 \times 9 = 90$ (S) · $11 \times 4 = 44$ (U) · $7 \times 8 = 56$ (D) · $9 \times 5 = 45$ (Y) · $5 \times 8 = 40$ (E) · $7 \times 11 = 77$ (O) · $10 \times 7 = 70$ (I)

Clue 5 (Division facts (1-12)): surviving statement is box 7 → Julian Alvarez

$120 \div 10 = 12$ · $70 \div 7 = 10$ · $90 \div 10 = 9$ · $9 \div 9 = 1$ · $18 \div 6 = 3$ · $110 \div 10 = 11$ · $42 \div 7 = 6$ · $24 \div 3 = 8$ · $25 \div 5 = 5$ · $48 \div 12 = 4$ · $18 \div 9 = 2$