



The Case of the Missing Golden Cup

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

Detective: _____ **Date:** _____

Oh no! The shiny Golden Cup has vanished from the stadium display case right before the big game. The referee found a trail of muddy footprints and soccer gear. We must find the thief 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 Golden Cup Thief 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	SPECIAL GEAR	DOMINANT FOOT	HEAD STYLE	DISTRACTION
Christian	Bicycle Kick	Laser Visor	Right-footed player	Bright orange dreads	Muddy grass patches
Karim	Slide Tackle	Super Shin Guards	Right-footed player	Neon blue Mohawk	Muddy grass patches
Leo	Power Volley	Agility Band	Right-footed player	Bright orange dreads	Yellow card warning
Cristiano	Power Volley	Laser Visor	Right-footed player	Neon blue Mohawk	Squeaky whistle sound
Tyler	Curve Shot	Turbo Cleats	Right-footed player	Green headband	Muddy grass patches
Luka	Slide Tackle	Agility Band	Left-footed player	Green headband	Yellow card warning
Bukayo	Curve Shot	Laser Visor	Right-footed player	Neon blue Mohawk	Yellow card warning
Brenden	Header Goal	Sticky Gloves	Left-footed player	Neon blue Mohawk	Muddy grass patches
Mo	Bicycle Kick	Laser Visor	Right-footed player	Neon blue Mohawk	Muddy grass patches
Sergino	Curve Shot	Sticky Gloves	Right-footed player	Neon blue Mohawk	Muddy grass patches
Erling	Power Volley	Super Shin Guards	Left-footed player	Bright orange dreads	Muddy grass patches
Marcus	Slide Tackle	Sticky Gloves	Right-footed player	Bright orange dreads	Squeaky whistle sound
Gio	Power Volley	Laser Visor	Left-footed player	Bright orange dreads	Muddy grass patches
Jack	Slide Tackle	Turbo Cleats	Right-footed player	Neon blue Mohawk	Squeaky whistle sound
Raheem	Bicycle Kick	Laser Visor	Right-footed player	Bright orange dreads	Squeaky whistle sound
Phil	Slide Tackle	Super Shin Guards	Left-footed player	Green headband	Squeaky whistle sound
Walker	Power Volley	Laser Visor	Right-footed player	Green headband	Muddy grass patches
Kylian	Curve Shot	Turbo Cleats	Right-footed player	Neon blue Mohawk	Muddy grass patches
Mason	Power Volley	Sticky Gloves	Left-footed player	Bright orange dreads	Muddy grass patches
Weston	Curve Shot	Super Shin Guards	Right-footed player	Green headband	Muddy grass patches
Timothy	Slide Tackle	Agility Band	Right-footed player	Neon blue Mohawk	Muddy grass patches

CLUE 1 Place value

We looked at the digits on the broken stadium scoreboard to unlock the equipment locker. The digit in the hundreds place points us to our first clue!

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

T			T											T				
500	8000	900	500	8000	80	900	800	40	2000	900	9000	1000	2000	500	50	900	5000	100
							T											
5000	1000	5000	30	80	6000	80	500	4000	20	5000	1000	40						

What is the value of the 5 in 2,511? → **T**

What is the value of the 5 in 8,256? → **W**

What is the value of the 3 in 234? → **G**

What is the value of the 4 in 4,375? → **Y**

What is the value of the 2 in 2,063? → **O**

What is the value of the 8 in 804? → **F**

What is the value of the 9 in 8,956? → **E**

What is the value of the 6 in 46,220? → **L**

What is the value of the 9 in 9,572? → **S**

What is the value of the 1 in 8,106? → **R**

What is the value of the 8 in 8,472? → **H**

What is the value of the 5 in 5,677? → **A**

What is the value of the 1 in 1,448? → **N**

What is the value of the 2 in 5,629? → **B**

What is the value of the 4 in 9,645? → **D**

What is the value of the 8 in 3,186? → **I**

Scratch space:

CLUE 2

We added up all the yellow practice cones scattered across the penalty box. Solving this sum reveals a secret note dropped by the thief!

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

Diagram showing the arrangement of 18 numbered boxes in two rows. The top row has 15 boxes, and the bottom row has 5 boxes. The boxes are numbered 4750, 2275, 7493, 9518, 4569, 5229, 3249, 3249, 4569, 3128, 4750, 2275, 3663, 4569, 5229, 3249, 5240, 3663, 4892. The boxes with numbers 4750 and 4750 are highlighted with an orange background and a red 'R'.

$$1765 + 2985 = \boxed{} \rightarrow \boxed{\text{R}}$$

$$1567 + 708 = \boxed{} \rightarrow \boxed{}$$

$$2969 + 1923 = \boxed{} \rightarrow \boxed{\mathbf{D}}$$

$$3577 + 1663 = \boxed{} \rightarrow \boxed{\text{U}}$$

$$4013 + 5505 = \boxed{} \rightarrow \boxed{\text{H}}$$

$2170 + 2399 = \boxed{} \rightarrow \boxed{\text{T}}$

$$1552 + 1697 = \boxed{} \rightarrow \boxed{0}$$

$1609 + 2054 = \boxed{} \rightarrow \mathbf{N}$

$$5373 + 3976 = \boxed{} \rightarrow \boxed{\text{L}}$$

$$1046 + 1845 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$4384 + 3109 = \boxed{} \rightarrow \boxed{\text{G}}$$

$$1960 + 1168 = \boxed{} \rightarrow \boxed{\text{P}}$$

$3449 + 1780 = \boxed{} \rightarrow \boxed{\text{F}}$

Scratch space:

CLUE 3
Subtraction

The team had a big bag of soccer balls but some are missing. Subtracting the flat balls from the total gives us the key code for the next clue!

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

M																		
4597	8912	6054	6054	8046	6437	6907	2627	5898	5898	5898	5391	3403	6939	5898	6169	4341	8690	
6169	4341	1217	8690	2501	6054	3403	6939	8537										

$6010 - 1413 = \square \rightarrow \text{M}$

$13452 - 4762 = \square \rightarrow \text{E}$

$8562 - 2508 = \square \rightarrow \text{D}$

$10027 - 3088 = \square \rightarrow \text{W}$

$2973 - 472 = \square \rightarrow \text{F}$

$13688 - 4776 = \square \rightarrow \text{U}$

$8294 - 1857 = \square \rightarrow \text{G}$

$9658 - 1612 = \square \rightarrow \text{Y}$

$7300 - 1402 = \square \rightarrow \text{S}$

$8826 - 4485 = \square \rightarrow \text{H}$

$4417 - 1014 = \square \rightarrow \text{O}$

$3791 - 1164 = \square \rightarrow \text{A}$

$5703 - 4486 = \square \rightarrow \text{I}$

$9421 - 4030 = \square \rightarrow \text{L}$

$8962 - 425 = \square \rightarrow \text{N}$

$10906 - 3999 = \square \rightarrow \text{R}$

$6660 - 491 = \square \rightarrow \text{T}$

Scratch space:

CLUE 4 Rounding

The stadium radar gun clocked a super fast kick but it only shows numbers rounded to the nearest ten. Rounding the speed unlocks the next hint!

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

W															
5000	30	90	130	370	3000	3700	70	4300	370	30	500	7000	200	50	130 3000
230	500	30	1300	130	20	20	30	50	70	7000	4300	4300			

Round 4,912 to the nearest thousand → **W**

Round 230 to the nearest ten → **T**

Round 1,254 to the nearest hundred → **S**

Round 218 to the nearest hundred → **I**

Round 2,742 to the nearest thousand → **N**

Round 374 to the nearest ten → **U**

Round 6,976 to the nearest thousand → **A**

Round 17 to the nearest ten → **C**

Round 74 to the nearest ten → **B**

Round 33 to the nearest ten → **E**

Round 3,736 to the nearest hundred → **D**

Round 496 to the nearest hundred → **H**

Round 86 to the nearest ten → **F**

Round 4,325 to the nearest hundred → **L**

Round 54 to the nearest ten → **R**

Round 131 to the nearest ten → **O**

Scratch space:

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

We shared a box of energy bars equally among the players. The leftover bars match the number on the thief's gear bag!

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:

$90 \div 10 = \boxed{}$

$77 \div 11 = \boxed{}$

$66 \div 11 = \boxed{}$

$33 \div 11 = \boxed{}$

$20 \div 5 = \boxed{}$

$24 \div 12 = \boxed{}$

$132 \div 11 = \boxed{}$

$11 \div 1 = \boxed{}$

$15 \div 3 = \boxed{}$

$8 \div 8 = \boxed{}$

$80 \div 10 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain bends a wild curve shot, then escapes easily with an agility band.
2. The villain scores with a bicycle kick, then escapes easily with an agility band.
3. The villain shoots a fast power volley, then blocks the path with super shin guards.
4. The villain scores with a bicycle kick, then blocks the path with super shin guards.
5. The villain scores with a strong header, then grabs the trophy with sticky gloves.
6. The villain scores with a bicycle kick, then spots the exit with a laser visor.
7. The villain stops a play with a slide tackle, then blocks the path with super shin guards.
8. The villain bends a wild curve shot, then spots the exit with a laser visor.
9. The villain bends a wild curve shot, then grabs the trophy with sticky gloves.
10. The villain bends a wild curve shot, then zooms away in turbo cleats.
11. The villain shoots a fast power volley, then zooms away in turbo cleats.
12. The villain shoots a fast power volley, then grabs the trophy with sticky gloves.

Answer Key

The Case of the Missing Golden Cup

Culprit: Kylian

Curve Shot · Turbo Cleats · Right-footed player · Neon blue Mohawk · Muddy grass patches

Trail: Start 21 → Clue 1 18 → Clue 2 13 → Clue 3 8 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE THIEF DOES NOT WEAR AN AGILITY BAND"

What is the value of the 5 in 2,511? = 500 (T) · What is the value of the 5 in 8,256? = 50 (W) · What is the value of the 3 in 234? = 30 (G) · What is the value of the 4 in 4,375? = 4000 (Y) · What is the value of the 2 in 2,063? = 2000 (O) · What is the value of the 8 in 804? = 800 (F) · What is the value of the 9 in 8,956? = 900 (E) · What is the value of the 6 in 46,220? = 6000 (L) · What is the value of the 9 in 9,572? = 9000 (S) · What is the value of the 1 in 8,106? = 100 (R) · What is the value of the 8 in 8,472? = 8000 (H) · What is the value of the 5 in 5,677? = 5000 (A) · What is the value of the 1 in 1,448? = 1000 (N) · What is the value of the 2 in 5,629? = 20 (B) · What is the value of the 4 in 9,645? = 40 (D) · What is the value of the 8 in 3,186? = 80 (I)

Clue 2 (Addition): "RIGHT FOOT PRINT FOUND ON THE FIELD"

$1765 + 2985 = 4750$ (R) · $1567 + 708 = 2275$ (I) · $2969 + 1923 = 4892$ (D) · $3577 + 1663 = 5240$ (U) · $4013 + 5505 = 9518$ (H) · $2170 + 2399 = 4569$ (T) · $1552 + 1697 = 3249$ (O) · $1609 + 2054 = 3663$ (N) · $5373 + 3976 = 9349$ (L) · $1046 + 1845 = 2891$ (E) · $4384 + 3109 = 7493$ (G) · $1960 + 1168 = 3128$ (P) · $3449 + 1780 = 5229$ (F)

Clue 3 (Subtraction): "MUDDY GRASS SLOWS THE THIEF DOWN"

$6010 - 1413 = 4597$ (M) · $13452 - 4762 = 8690$ (E) · $8562 - 2508 = 6054$ (D) · $10027 - 3088 = 6939$ (W) · $2973 - 472 = 2501$ (F) · $13688 - 4776 = 8912$ (U) · $8294 - 1857 = 6437$ (G) · $9658 - 1612 = 8046$ (Y) · $7300 - 1402 = 5898$ (S) · $8826 - 4485 = 4341$ (H) · $4417 - 1014 = 3403$ (O) · $3791 - 1164 = 2627$ (A) · $5703 - 4486 = 1217$ (I) · $9421 - 4030 = 5391$ (L) · $8962 - 425 = 8537$ (N) · $10906 - 3999 = 6907$ (R) · $6660 - 491 = 6169$ (T)

Clue 4 (Rounding): "WE FOUND BLUE HAIR ON THE SOCCER BALL"

Round 4,912 to the nearest thousand = 5000 (W) · Round 230 to the nearest ten = 230 (T) · Round 1,254 to the nearest hundred = 1300 (S) · Round 218 to the nearest hundred = 200 (I) · Round 2,742 to the nearest thousand = 3000 (N) · Round 374 to the nearest ten = 370 (U) · Round 6,976 to the nearest thousand = 7000 (A) · Round 17 to the nearest ten = 20 (C) · Round 74 to the nearest ten = 70 (B) · Round 33 to the nearest ten = 30 (E) · Round 3,736 to the nearest hundred = 3700 (D) · Round 496 to the nearest hundred = 500 (H) · Round 86 to the nearest ten = 90 (F) · Round 4,325 to the nearest hundred = 4300 (L) · Round 54 to the nearest ten = 50 (R) · Round 131 to the nearest ten = 130 (O)

Clue 5 (Division facts (1-12)): surviving statement is box 10 → Kylian

$90 \div 10 = 9$ · $77 \div 11 = 7$ · $66 \div 11 = 6$ · $33 \div 11 = 3$ · $20 \div 5 = 4$ · $24 \div 12 = 2$ · $132 \div 11 = 12$ · $11 \div 1 = 11$ · $15 \div 3 = 5$ · $8 \div 8 = 1$ · $80 \div 10 = 8$