The Golden Cup Mystery

Grade 8 math · Multiplication, Word problems, Multi-step word problems, Exponents, Division · Reading level grades 7-9

Detective: _____ **Date:** _____

Right before the championship final at Metropolitan Soccer Arena, someone swapped the golden trophy with a fake and scattered the head coach's playbooks. The tactical team must analyze match data to reveal the culprit.

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 stadium saboteur is _____

Possible suspects

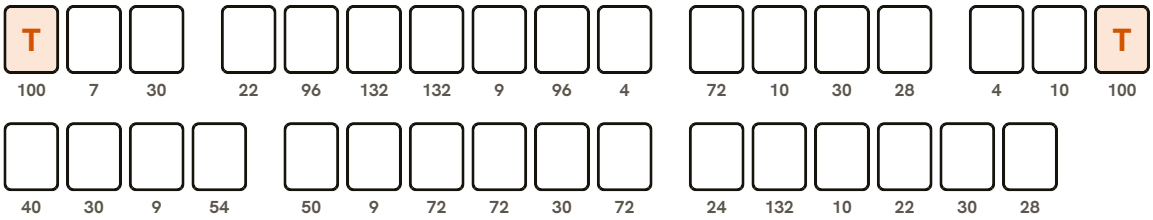
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	SIGNATURE MOVE	GEAR ITEM	DOMINANT FOOT	HAIRSTYLE	DISTRACTION
Lionel Messi	Slide Tackle	Gold Cleats	Left Footed	Spiky Hair	Loud Whistle
Luka Modric	Power Header	Captain Band	Left Footed	Spiky Hair	Bright Spotlight
Cristiano Ronaldo	Penalty Shot	Padded Gloves	Left Footed	Braided Hair	Yellow Card
Pedri Gonzalez	Penalty Shot	Gold Cleats	Left Footed	Braided Hair	Loud Whistle
Bruno Fernandes	Bicycle Kick	Whistle Strap	Left Footed	Buzz Cut	Yellow Card
Virgil van Dijk	Slide Tackle	Gold Cleats	Right Footed	Braided Hair	Bright Spotlight
Marta Silva	Slide Tackle	Gold Cleats	Left Footed	Braided Hair	Loud Whistle
Erling Haaland	Power Header	Neon Vest	Right Footed	Spiky Hair	Yellow Card
Gianluigi Donnarumma	Curve Kick	Captain Band	Left Footed	Braided Hair	Yellow Card
Declan Rice	Slide Tackle	Gold Cleats	Left Footed	Braided Hair	Yellow Card
Bukayo Saka	Penalty Shot	Gold Cleats	Left Footed	Braided Hair	Bright Spotlight
Marcus Rashford	Curve Kick	Whistle Strap	Right Footed	Buzz Cut	Bright Spotlight
Jude Bellingham	Power Header	Whistle Strap	Left Footed	Braided Hair	Yellow Card
Harry Kane	Power Header	Captain Band	Left Footed	Braided Hair	Yellow Card
Kylian Mbappe	Power Header	Captain Band	Right Footed	Braided Hair	Yellow Card
Sam Kerr	Power Header	Captain Band	Left Footed	Spiky Hair	Yellow Card
Rodri Hernandez	Penalty Shot	Padded Gloves	Right Footed	Spiky Hair	Bright Spotlight
Federico Valverde	Curve Kick	Gold Cleats	Left Footed	Spiky Hair	Yellow Card
Jamal Musiala	Power Header	Gold Cleats	Right Footed	Buzz Cut	Loud Whistle
Alex Morgan	Curve Kick	Neon Vest	Right Footed	Braided Hair	Yellow Card
Alphonso Davies	Curve Kick	Captain Band	Right Footed	Buzz Cut	Yellow Card

CLUE 1 Multiplication facts (1-12)

> The equipment manager calculates soccer ball tallies and gear counts across multiple training sessions to decode the first lead.

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



10 × 10 = ☐ → T	9 × 6 = ☐ → R	2 × 2 = ☐ → N
8 × 12 = ☐ → I	10 × 1 = ☐ → O	4 × 7 = ☐ → S
2 × 11 = ☐ → V	3 × 3 = ☐ → A	11 × 12 = ☐ → L
5 × 6 = ☐ → E	7 × 1 = ☐ → H	5 × 10 = ☐ → P	8 × 3 = ☐ → G
8 × 9 = ☐ → D	4 × 10 = ☐ → W	

Scratch space:

CLUE 2 Word problems

The stadium analyst calculates total passing stats to reveal the suspect's habits.

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

A witness saw the villain was

L									
114	19	103	116	103	97	97	116	19	59

.

Midfielder found 32 soccer balls yesterday and 82 more today. How many soccer balls in all?

Answer: ☐ → **L**

There were 133 soccer balls. 30 were used up. How many soccer balls are left?

Answer: ☐ → **F**

Midfielder found 9 soccer balls yesterday and 50 more today. How many soccer balls in all?

Answer: ☐ → **D**

Midfielder found 10 soccer balls yesterday and 9 more today. How many soccer balls in all?

Answer: ☐ → **E**

Midfielder found 105 training pinnies yesterday and 11 more today. How many training pinnies in all?

Answer: ☐ → **T**

There were 102 corner flags. 5 were used up. How many corner flags are left?

Answer: ☐ → **O**

Scratch space:

CLUE 3 Multi-step word problems

The groundskeeper multiplies row counts of stadium seats to locate where the mystery offender was sitting.

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

Someone scared the villain off with

Y								R	D
86	72	56	56	16	57	17	49		

.

There were 621 soccer balls in all. 19 soccer balls were set aside. The rest were shared equally among 7 scouting staff. How many soccer balls did each get?

Answer: ☐ → Y

Midfielder earned 7 soccer balls in each of 6 rounds, plus 35 bonus soccer balls. Then 5 soccer balls were lost. How many soccer balls are left?

Answer: ☐ → E

Midfielder earned 2 soccer balls in each of 6 rounds, plus 48 bonus soccer balls. Then 3 soccer balls were lost. How many soccer balls are left?

Answer: ☐ → W

There were 294 water bottles in all. 1 scouting staff used 14 water bottles each. The other 5 scouting staff shared the rest equally. How many water bottles did each of the other scouting staff get?

Answer: ☐ → L

Midfielder collected 112 cone markers in the morning and 35 cone markers in the afternoon, then split them equally among 3 scouting staff. How many cone markers did each get?

Answer: ☐ → A

Midfielder filled 4 boxes with 3 water bottles each, then found 5 more water bottles. How many water bottles are there in all?

Answer: ☐ → C

Midfielder collected 41 training pinnies in the morning and 7 training pinnies in the afternoon, then split them equally among 3 scouting staff. How many training pinnies did each get?

Answer: ☐ → O

Scratch space:

CLUE 4 Exponents

> The tactical video system uses exponential grid scaling to pinpoint where the rogue movement started on the pitch.

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



2^2 = ☐ → B

22^2 = ☐ → H

9^2 = ☐ → E

4^4 = ☐ → R

18^2 = ☐ → I

3^2 = ☐ → U

12^2 = ☐ → W

2^7 = ☐ → L

3^6 = ☐ → T

21^2 = ☐ → F

11^2 = ☐ → S

4^2 = ☐ → O

13^2 = ☐ → D

5^4 = ☐ → A

7^3 = ☐ → N

Scratch space:

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

> The referee divides team scrimmage scores into equal groups to isolate 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:

48 ÷ 8 = ☐	32 ÷ 4 = ☐	10 ÷ 2 = ☐	24 ÷ 8 = ☐	20 ÷ 2 = ☐
88 ÷ 8 = ☐	45 ÷ 5 = ☐	28 ÷ 4 = ☐	132 ÷ 11 = ☐	32 ÷ 8 = ☐
3 ÷ 3 = ☐				

Step 2 - cross out the sentence with each answer:

1. The villain smashed a fast penalty shot, then adjusted a glowing captain band.
2. The villain executed a reckless slide tackle, then flashed shiny gold cleats.
3. The villain smashed a fast penalty shot, then swung a black whistle strap.
4. The villain smashed a fast penalty shot, then pulled on thick padded gloves.
5. The villain scored with a powerful header, then swung a black whistle strap.
6. The villain scored with a powerful header, then adjusted a glowing captain band.
7. The villain executed a reckless slide tackle, then zipped up a neon vest.
8. The villain curved the ball into the top corner, then adjusted a glowing captain band.
9. The villain curved the ball into the top corner, then swung a black whistle strap.
10. The villain launched a dramatic bicycle kick, then zipped up a neon vest.
11. The villain launched a dramatic bicycle kick, then adjusted a glowing captain band.
12. The villain executed a reckless slide tackle, then adjusted a glowing captain band.

TEACHER / PARENT

Answer Key

The Golden Cup Mystery

Culprit: Declan Rice

Slide Tackle · Gold Cleats · Left Footed · Braided Hair · Yellow Card

Trail: Start 21 → Clue 1 19 → Clue 2 12 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE VILLAIN DOES NOT WEAR PADDED GLOVES"

10 × 10 = 100 (T) · 9 × 6 = 54 (R) · 2 × 2 = 4 (N) · 8 × 12 = 96 (I) · 10 × 1 = 10 (O) · 4 × 7 = 28 (S) · 2 × 11 = 22 (V) · 3 × 3 = 9 (A) · 11 × 12 = 132 (L) · 5 × 6 = 30 (E) · 7 × 1 = 7 (H) · 5 × 10 = 50 (P) · 8 × 3 = 24 (G) · 8 × 9 = 72 (D) · 4 × 10 = 40 (W)

Clue 2 (Word problems): "LEFT FOOTED"

Midfielder found 32 soccer balls yesterday and 82 more today. How many soccer balls in all? = 114 (L) · There were 133 soccer balls. 30 were used up. How many soccer balls are left? = 103 (F) · Midfielder found 9 soccer balls yesterday and 50 more today. How many soccer balls in all? = 59 (D) · Midfielder found 10 soccer balls yesterday and 9 more today. How many soccer balls in all? = 19 (E) · Midfielder found 105 training pinnies yesterday and 11 more today. How many training pinnies in all? = 116 (T) · There were 102 corner flags. 5 were used up. How many corner flags are left? = 97 (O)

Clue 3 (Multi-step word problems): "YELLOW CARD"

There were 621 soccer balls in all. 19 soccer balls were set aside. The rest were shared equally among 7 scouting staff. How many soccer balls did each get? = 86 (Y) · Midfielder earned 7 soccer balls in each of 6 rounds, plus 35 bonus soccer balls. Then 5 soccer balls were lost. How many soccer balls are left? = 72 (E) · Midfielder earned 2 soccer balls in each of 6 rounds, plus 48 bonus soccer balls. Then 3 soccer balls were lost. How many soccer balls are left? = 57 (W) · There were 294 water bottles in all. 1 scouting staff used 14 water bottles each. The other 5 scouting staff shared the rest equally. How many water bottles did each of the other scouting staff get? = 56 (L) · Midfielder collected 112 cone markers in the morning and 35 cone markers in the afternoon, then split them equally among 3 scouting staff. How many cone markers did each get? = 49 (A) · Midfielder filled 4 boxes with 3 water bottles each, then found 5 more water bottles. How many water bottles are there in all? = 17 (C) · Midfielder collected 41 training pinnies in the morning and 7 training pinnies in the afternoon, then split them equally among 3 scouting staff. How many training pinnies did each get? = 16 (O)

Clue 4 (Exponents): "BRAIDED HAIR STRANDS WERE LEFT ON THE TURF"

2^2 = 4 (B) · 22^2 = 484 (H) · 9^2 = 81 (E) · 4^4 = 256 (R) · 18^2 = 324 (I) · 3^2 = 9 (U) · 12^2 = 144 (W) · 2^7 = 128 (L) · 3^6 = 729 (T) · 21^2 = 441 (F) · 11^2 = 121 (S) · 4^2 = 16 (O) · 13^2 = 169 (D) · 5^4 = 625 (A) · 7^3 = 343 (N)

Clue 5 (Division facts (1-12)): surviving statement is box 2 → Declan Rice

48 ÷ 8 = 6 · 32 ÷ 4 = 8 · 10 ÷ 2 = 5 · 24 ÷ 8 = 3 · 20 ÷ 2 = 10 · 88 ÷ 8 = 11 · 45 ÷ 5 = 9 · 28 ÷ 4 = 7 · 132 ÷ 11 = 12 · 32 ÷ 8 = 4 · 3 ÷ 3 = 1