



The Mystery of the Missing Cup

Grade 5 math · Addition, Subtraction, Fractions of a number, Order of operations, Division · Reading level grades 3-4

Detective: _____ **Date:** _____

The legendary Champion Cup has vanished from Golden Goal Arena right before the big tournament! A mysterious phantom player snuck onto the pitch under the cover of night. We must find the culprit who stole the trophy 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 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	SPECIAL GEAR	CLEAT LACE STYLE	TEAM HEADBAND	FIELD TRAP
Bukayo Saka	lightning sprint	sonic whistle	double lace knot	neon green band	sprinkler blast
Erling Haaland	lightning sprint	super grip gloves	single lace knot	neon green band	sprinkler blast
Son Heung Min	lightning sprint	golden cleats	double lace knot	neon green band	giant practice net
Sam Kerr	cannonball shot	sonic whistle	double lace knot	electric blue band	sticky mud patch
Kylian Mbappe	super bicycle kick	glow in dark ball	double lace knot	electric blue band	sticky mud patch
Jude Bellingham	diving header	golden cleats	single lace knot	electric blue band	sticky mud patch
Cristiano Ronaldo	lightning sprint	glow in dark ball	single lace knot	neon green band	giant practice net
Neymar Jr	super bicycle kick	golden cleats	double lace knot	electric blue band	giant practice net
Virgil van Dijk	lightning sprint	super grip gloves	double lace knot	electric blue band	sticky mud patch
Alex Morgan	diving header	sonic whistle	single lace knot	bright orange band	giant practice net
Kevin De Bruyne	lightning sprint	golden cleats	double lace knot	neon green band	sprinkler blast
Marcus Rashford	diving header	golden cleats	single lace knot	bright orange band	sticky mud patch
Lucy Bronze	diving header	glow in dark ball	single lace knot	neon green band	sticky mud patch
Luka Modric	lightning sprint	super grip gloves	single lace knot	bright orange band	sticky mud patch
Megan Rapinoe	curving free kick	golden cleats	double lace knot	electric blue band	sticky mud patch
Harry Kane	cannonball shot	super grip gloves	double lace knot	electric blue band	sticky mud patch
Robert Lewandowski	diving header	glow in dark ball	double lace knot	bright orange band	sticky mud patch
Antoine Griezmann	super bicycle kick	sonic whistle	single lace knot	bright orange band	sticky mud patch
Alisson Becker	diving header	sonic whistle	double lace knot	electric blue band	sprinkler blast
Marta	super bicycle kick	radar headband	single lace knot	bright orange band	sticky mud patch
Bruno Fernandes	lightning sprint	glow in dark ball	double lace knot	electric blue band	sprinkler blast

CLUE 1 Addition

We counted the training cones left on the pitch. Adding up the blue and yellow cones reveals our first clue.

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

T 4844	3554	7014	T 4844	3554	9169	7014	9823	6861	9714	7014	5063	7752	9714	T 4844	6701	5063	7014
T 4844	3554	7014	5063	9714	7752	9169	2805	3640	3554	9169	5063	T 4844	4799	7014			

$2675 + 2169 = \square \rightarrow \text{T}$	$4098 + 3654 = \square \rightarrow \text{N}$	$2532 + 4482 = \square \rightarrow \text{E}$
$5989 + 3834 = \square \rightarrow \text{F}$	$1761 + 1044 = \square \rightarrow \text{C}$	$3450 + 1613 = \square \rightarrow \text{S}$
$2574 + 4127 = \square \rightarrow \text{U}$	$3115 + 6599 = \square \rightarrow \text{O}$	$1762 + 1878 = \square \rightarrow \text{W}$
$3411 + 3450 = \square \rightarrow \text{D}$	$3156 + 1643 = \square \rightarrow \text{L}$	$4580 + 4589 = \square \rightarrow \text{I}$
$2479 + 1075 = \square \rightarrow \text{H}$		

Scratch space:

CLUE 2
Subtraction

The thief dropped a box of practice balls. Subtracting the flat ones from the total gives us our next clue.

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

T
T

6758 7840 6105 6758 2076 4033 7499 4771 8030 8030 7840 6352 2289 4033

T T T

6583 6352 8795 1320 8194 6105 4771 3590 6352 6758 3000 4033 6758 6758 6105 2076 3590

$8459 - 1701 = \boxed{} \rightarrow \boxed{\text{T}}$

$12579 - 4549 = \boxed{} \rightarrow \boxed{\text{S}}$

$12931 - 4737 = \boxed{} \rightarrow \boxed{\text{L}}$

$8984 - 2632 = \boxed{} \rightarrow \boxed{\text{O}}$

$12310 - 4811 = \boxed{} \rightarrow \boxed{\text{C}}$

$11965 - 4125 = \boxed{} \rightarrow \boxed{\text{H}}$

$6660 - 555 = \boxed{} \rightarrow \boxed{\text{E}}$

$5490 - 1457 = \boxed{} \rightarrow \boxed{\text{A}}$

$5181 - 3861 = \boxed{} \rightarrow \boxed{\text{B}}$

$10000 - 3417 = \boxed{} \rightarrow \boxed{\text{D}}$

$3649 - 1360 = \boxed{} \rightarrow \boxed{\text{W}}$

$7566 - 2795 = \boxed{} \rightarrow \boxed{\text{K}}$

$7774 - 4774 = \boxed{} \rightarrow \boxed{\text{P}}$

$6193 - 2603 = \boxed{} \rightarrow \boxed{\text{N}}$

$3650 - 1574 = \boxed{} \rightarrow \boxed{\text{R}}$

$12464 - 3669 = \boxed{} \rightarrow \boxed{\text{U}}$

Scratch space:

CLUE 3
Fractions of a number

Look at the team rosters! Finding a fraction of the total player count points us to the next hint.

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

T																T
34	4	39	30	40	39	9	20	22	30	29	30	19	39	23	34	

											T			
30	28	36	19	19	39	14	36	40	37	39	34	13	29	14

$2/8 \text{ of } 136 = \boxed{} \rightarrow \boxed{\text{T}}$

$2/6 \text{ of } 117 = \boxed{} \rightarrow \boxed{\text{E}}$

$2/3 \text{ of } 6 = \boxed{} \rightarrow \boxed{\text{H}}$

$2/6 \text{ of } 66 = \boxed{} \rightarrow \boxed{\text{Y}}$

$1/4 \text{ of } 92 = \boxed{} \rightarrow \boxed{\text{C}}$

$1/4 \text{ of } 148 = \boxed{} \rightarrow \boxed{\text{W}}$

$2/4 \text{ of } 40 = \boxed{} \rightarrow \boxed{\text{K}}$

$2/8 \text{ of } 76 = \boxed{} \rightarrow \boxed{\text{P}}$

$1/5 \text{ of } 65 = \boxed{} \rightarrow \boxed{\text{M}}$

$4/10 \text{ of } 70 = \boxed{} \rightarrow \boxed{\text{L}}$

$4/10 \text{ of } 100 = \boxed{} \rightarrow \boxed{\text{N}}$

$2/8 \text{ of } 36 = \boxed{} \rightarrow \boxed{\text{A}}$

$1/4 \text{ of } 120 = \boxed{} \rightarrow \boxed{\text{S}}$

$7/10 \text{ of } 20 = \boxed{} \rightarrow \boxed{\text{D}}$

$3/8 \text{ of } 96 = \boxed{} \rightarrow \boxed{\text{I}}$

$2/4 \text{ of } 58 = \boxed{} \rightarrow \boxed{\text{U}}$

Scratch space:

Order of operations

The scoreboards flashed a strange sequence of drills. Solving the operations in the correct order unlocks this file.

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 values from left to right: 27 (orange), 61, 6, 54, 15, 54, 53, 11, 76, 41, 10, 54, 76, 27 (orange), 29, 43, 77, 27 (orange), 7. The bottom row contains the following values from left to right: 7, 61, 53, 46, 46, 54, 43, 29, 54, 27 (orange), 36, 46, 75, 54, 29, 54, 46.

$$6 + 3 \times 7 = \boxed{} \rightarrow \boxed{\mathbf{A}}$$

$$10 \times 9 - 15 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$10 \times 9 - 29 = \boxed{} \rightarrow \boxed{\text{P}}$$

$4 + 2 \times 3 = \boxed{} \rightarrow \boxed{\text{U}}$

$$9 \times 8 - 26 = \boxed{} \rightarrow \boxed{\text{T}}$$

$10 \times 2 - 9 = \boxed{} \rightarrow \boxed{\text{F}}$

$$8 \times 10^{-4} = \boxed{} \rightarrow \mathbf{B}$$

$19 + 5 \times 2 = \boxed{} \rightarrow \boxed{\text{N}}$

$10 \times 6 - 17 = \square \rightarrow \mathbf{D}$

$$11 \times 7 - 24 = \boxed{} \rightarrow \boxed{0}$$

$$20 + 4 \times 4 = \boxed{} \rightarrow \boxed{\mathbf{R}}$$

$$37 + 2 \times 2 = \boxed{} \rightarrow \boxed{\text{L}}$$

$$3 + 2 \times 2 = \boxed{} \rightarrow \boxed{\mathbf{S}}$$

$9 \times 7 - 9 = \boxed{} \rightarrow \boxed{\text{E}}$

$$10 \times 9 - 13 = \boxed{} \rightarrow \boxed{\text{W}}$$

$$2 + 2 \times 2 = \boxed{} \rightarrow \boxed{}$$

$$3 + 4 \times 3 = \boxed{} \rightarrow \boxed{\text{C}}$$

Scratch space:

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

The coach has a bag of goalie gloves to share equally among the teams. Dividing them up uncovers 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:

$96 \div 12 = \boxed{}$

$44 \div 4 = \boxed{}$

$36 \div 6 = \boxed{}$

$4 \div 4 = \boxed{}$

$4 \div 2 = \boxed{}$

$30 \div 10 = \boxed{}$

$120 \div 12 = \boxed{}$

$55 \div 11 = \boxed{}$

$42 \div 6 = \boxed{}$

$48 \div 4 = \boxed{}$

$45 \div 5 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain scores with a diving header, then distracts the guards with a sonic whistle.
2. The villain performs a super bicycle kick, then escapes using golden cleats.
3. The villain dashes with a lightning sprint, then distracts the guards with a sonic whistle.
4. The villain dashes with a lightning sprint, then climbs the fence with super grip gloves.
5. The villain performs a super bicycle kick, then navigates the fog with a radar headband.
6. The villain launches a cannonball shot, then climbs the fence with super grip gloves.
7. The villain performs a super bicycle kick, then distracts the guards with a sonic whistle.
8. The villain performs a super bicycle kick, then disappears with a glow in the dark ball.
9. The villain launches a cannonball shot, then distracts the guards with a sonic whistle.
10. The villain bends a curving free kick, then disappears with a glow in the dark ball.
11. The villain bends a curving free kick, then escapes using golden cleats.
12. The villain scores with a diving header, then navigates the fog with a radar headband.

Answer Key

The Mystery of the Missing Cup

Culprit: Virgil van Dijk

lightning sprint · super grip gloves · double lace knot · electric blue band · sticky mud patch

Trail: Start 21 → Clue 1 16 → Clue 2 9 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE THIEF DOES NOT USE THE SONIC WHISTLE"

$2675 + 2169 = 4844$ (T) · $4098 + 3654 = 7752$ (N) · $2532 + 4482 = 7014$ (E) · $5989 + 3834 = 9823$ (F) · $1761 + 1044 = 2805$ (C) · $3450 + 1613 = 5063$ (S) · $2574 + 4127 = 6701$ (U) · $3115 + 6599 = 9714$ (O) · $1762 + 1878 = 3640$ (W) · $3411 + 3450 = 6861$ (D) · $3156 + 1643 = 4799$ (L) · $4580 + 4589 = 9169$ (I) · $2479 + 1075 = 3554$ (H)

Clue 2 (Subtraction): "THE TRACKS SHOW A DOUBLE KNOT PATTERN"

$8459 - 1701 = 6758$ (T) · $12579 - 4549 = 8030$ (S) · $12931 - 4737 = 8194$ (L) · $8984 - 2632 = 6352$ (O) · $12310 - 4811 = 7499$ (C) · $11965 - 4125 = 7840$ (H) · $6660 - 555 = 6105$ (E) · $5490 - 1457 = 4033$ (A) · $5181 - 3861 = 1320$ (B) · $10000 - 3417 = 6583$ (D) · $3649 - 1360 = 2289$ (W) · $7566 - 2795 = 4771$ (K) · $7774 - 4774 = 3000$ (P) · $6193 - 2603 = 3590$ (N) · $3650 - 1574 = 2076$ (R) · $12464 - 3669 = 8795$ (U)

Clue 3 (Fractions of a number): "THE SNEAKY SUSPECT SLIPPED IN WET MUD"

$2/8$ of 136 = 34 (T) · $2/6$ of 117 = 39 (E) · $2/3$ of 6 = 4 (H) · $2/6$ of 66 = 22 (Y) · $1/4$ of 92 = 23 (C) · $1/4$ of 148 = 37 (W) · $2/4$ of 40 = 20 (K) · $2/8$ of 76 = 19 (P) · $1/5$ of 65 = 13 (M) · $4/10$ of 70 = 28 (L) · $4/10$ of 100 = 40 (N) · $2/8$ of 36 = 9 (A) · $1/4$ of 120 = 30 (S) · $7/10$ of 20 = 14 (D) · $3/8$ of 96 = 36 (I) · $2/4$ of 58 = 29 (U)

Clue 4 (Order of operations): "A PIECE OF BLUE BAND WAS SPOTTED NEAR THE NET"

$6 + 3 \times 7 = 27$ (A) · $10 \times 9 - 15 = 75$ (H) · $10 \times 9 - 29 = 61$ (P) · $4 + 2 \times 3 = 10$ (U) · $9 \times 8 - 26 = 46$ (T) · $10 \times 2 - 9 = 11$ (F) · $8 \times 10 - 4 = 76$ (B) · $19 + 5 \times 2 = 29$ (N) · $10 \times 6 - 17 = 43$ (D) · $11 \times 7 - 24 = 53$ (O) · $20 + 4 \times 4 = 36$ (R) · $37 + 2 \times 2 = 41$ (L) · $3 + 2 \times 2 = 7$ (S) · $9 \times 7 - 9 = 54$ (E) · $10 \times 9 - 13 = 77$ (W) · $2 + 2 \times 2 = 6$ (I) · $3 + 4 \times 3 = 15$ (C)

Clue 5 (Division facts (1-12)): surviving statement is box 4 → Virgil van Dijk

$96 \div 12 = 8$ · $44 \div 4 = 11$ · $36 \div 6 = 6$ · $4 \div 4 = 1$ · $4 \div 2 = 2$ · $30 \div 10 = 3$ · $120 \div 12 = 10$ · $55 \div 11 = 5$ · $42 \div 6 = 7$ · $48 \div 4 = 12$ · $45 \div 5 = 9$