



# The Golden Trophy Mystery

Grade 5 math · Place value, Addition, Subtraction, Multiplication, Division · Reading level grades 5-6

Detective: \_\_\_\_\_ Date: \_\_\_\_\_

Just before the championship final kickoff, the golden tournament trophy vanished from the center circle! A sneaky figure in high-tech gear snuck past the security cameras, leaving behind a series of coded turf clues. It is up to you to analyze the evidence and unmask the culprit before the referee blows the final whistle.

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 intruder 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      | power header   | padded shorts   | right footed  | braided hair | squeaky whistle   |
| Mohamed Salah     | speed dribble  | glowing gloves  | left footed   | spiky hair   | loud vuvuzela     |
| Kylian Mbappe     | curve shot     | gold cleats     | left footed   | braided hair | bright floodlight |
| Erling Haaland    | curve shot     | padded shorts   | right footed  | spiky hair   | loud vuvuzela     |
| Alexia Putellas   | curve shot     | captain armband | right footed  | braided hair | loud vuvuzela     |
| Aitana Bonmati    | speed dribble  | neon headband   | right footed  | braided hair | loud vuvuzela     |
| Virgil van Dijk   | slide tackle   | captain armband | right footed  | buzz cut     | squeaky whistle   |
| Cristiano Ronaldo | slide tackle   | gold cleats     | left footed   | buzz cut     | bright floodlight |
| Bruno Fernandes   | bicycle kick   | glowing gloves  | right footed  | spiky hair   | loud vuvuzela     |
| Bukayo Saka       | power header   | neon headband   | right footed  | spiky hair   | squeaky whistle   |
| Marcus Rashford   | power header   | neon headband   | right footed  | buzz cut     | bright floodlight |
| Kevin De Bruyne   | power header   | captain armband | left footed   | braided hair | bright floodlight |
| Federico Valverde | bicycle kick   | padded shorts   | right footed  | braided hair | bright floodlight |
| Alisson Becker    | power header   | glowing gloves  | right footed  | spiky hair   | bright floodlight |
| Jude Bellingham   | curve shot     | neon headband   | right footed  | spiky hair   | loud vuvuzela     |
| Pedri Gonzalez    | bicycle kick   | gold cleats     | left footed   | braided hair | loud vuvuzela     |
| Luka Modric       | power header   | captain armband | right footed  | braided hair | squeaky whistle   |
| Son Heungmin      | bicycle kick   | neon headband   | right footed  | braided hair | loud vuvuzela     |
| Antoine Griezmann | power header   | neon headband   | right footed  | braided hair | loud vuvuzela     |
| Marta Silva       | bicycle kick   | glowing gloves  | right footed  | braided hair | loud vuvuzela     |
| Vinicius Junior   | curve shot     | glowing gloves  | right footed  | braided hair | squeaky whistle   |

### CLUE 1

The stadium scoreboard digital display scrambled the digits of the locker room passcodes. Use place value to figure out the real locker code and read the first secret memo.

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

|      |      |      |      |      |     |      |      |      |      |      |      |      |      |      |      |      |  |   |
|------|------|------|------|------|-----|------|------|------|------|------|------|------|------|------|------|------|--|---|
| T    |      |      |      |      |     |      |      |      | T    |      |      |      |      |      |      |      |  | T |
| 9000 | 70   | 3000 | 900  | 80   | 900 | 2000 | 3000 | 5000 | 9000 | 600  | 1000 | 3000 | 900  | 200  | 1000 | 9000 |  |   |
|      |      |      |      |      |     |      |      |      |      |      |      |      |      |      |      |      |  |   |
| 50   | 3000 | 30   | 7000 | 8000 | 60  | 1000 | 50   | 90   | 200  | 8000 | 8000 | 60   | 1000 | 4000 | 3000 | 900  |  |   |

What is the value of the 9 in 39,533?  → **T**

What is the value of the 3 in 71,835?  → **A**

What is the value of the 2 in 705,233?  → **N**

What is the value of the 7 in 89,575?  → **H**

What is the value of the 4 in 994,391?  → **V**

What is the value of the 7 in 37,602?  → **R**

What is the value of the 3 in 803,896?  → **E**

What is the value of the 5 in 75,138?  → **C**

What is the value of the 2 in 12,368?  → **P**

What is the value of the 6 in 190,164?  → **L**

What is the value of the 1 in 21,533?  → ☐

What is the value of the 8 in 328,644?  → **G**

What is the value of the 9 in 606,948?  → **S**

What is the value of the 5 in 614,153?  → **W**

What is the value of the 9 in 621,891?  →

What is the value of the 8 in 46,282?  → **U**

What is the value of the 6 in 98,650?  → **D**

Scratch space:

## CLUE 2 Addition

The head coach added up all the stray training cones left on the pitch to locate the missing match ball. Solving the total reveals the second secret memo.

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

|          |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      |
|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|
| <b>A</b> |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | <b>A</b> |      |
| 7274     | 6013 | 8846 | 9727 | 4869 | 9278 | 5815 | 2656 | 2656 | 9278 | 6934 | 6013 | 8846 | 6753 | 9278 | 3618 | 7274     | 7990 |

  

|      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
|      |      |      |      |      |      |      |      |      |      |      |      |      |
| 5815 | 2656 | 6091 | 6753 | 3006 | 8846 | 6753 | 9278 | 4869 | 6589 | 4771 | 6091 | 3006 |

|                                                |                                                |                                                |
|------------------------------------------------|------------------------------------------------|------------------------------------------------|
| $3466 + 3808 = \square \rightarrow \mathbf{A}$ | $3175 + 1694 = \square \rightarrow \mathbf{H}$ | $2608 + 4145 = \square \rightarrow \mathbf{N}$ |
| $4031 + 5247 = \square \rightarrow \mathbf{T}$ | $3783 + 4207 = \square \rightarrow \mathbf{S}$ | $3945 + 2146 = \square \rightarrow \mathbf{U}$ |
| $3531 + 5315 = \square \rightarrow \mathbf{I}$ | $2858 + 4076 = \square \rightarrow \mathbf{P}$ | $5393 + 4334 = \square \rightarrow \mathbf{G}$ |
| $3731 + 2084 = \square \rightarrow \mathbf{F}$ | $1082 + 1574 = \square \rightarrow \mathbf{O}$ | $1691 + 1927 = \square \rightarrow \mathbf{W}$ |
| $3167 + 2846 = \square \rightarrow \mathbf{R}$ | $1233 + 1773 = \square \rightarrow \mathbf{D}$ | $3348 + 3241 = \square \rightarrow \mathbf{E}$ |
| $2408 + 2363 = \square \rightarrow \mathbf{M}$ |                                                |                                                |

Scratch space:

### CLUE 3 Subtraction

The equipment manager calculated the difference between used and unused water bottles to track where the intruder went. Find the difference to decode the third memo.

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

|          |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>T</b> |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 3238     | 1712 | 8792 | 4434 | 2134 | 7327 | 6973 | 3472 | 7327 | 3472 | 7327 | 4667 | 8792 | 4434 | 4324 | 4746 | 8238 | 2134 | 4667 | 8792 |

  

|          |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>T</b> |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 3238     | 1712 | 8792 | 5943 | 6067 | 8792 | 4324 | 3624 | 3376 | 5572 | 4434 | 4324 | 3376 | 8792 | 8238 |

|                                                       |                                                       |                                                       |
|-------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|
| $5313 - 2075 = \square \rightarrow \boxed{\text{T}}$  | $5549 - 803 = \square \rightarrow \boxed{\text{F}}$   | $3783 - 407 = \square \rightarrow \boxed{\text{Y}}$   |
| $8246 - 2179 = \square \rightarrow \boxed{\text{N}}$  | $6039 - 2567 = \square \rightarrow \boxed{\text{V}}$  | $5291 - 1667 = \square \rightarrow \boxed{\text{K}}$  |
| $4059 - 2347 = \square \rightarrow \boxed{\text{H}}$  | $10399 - 1607 = \square \rightarrow \boxed{\text{E}}$ | $5477 - 3343 = \square \rightarrow \boxed{\text{O}}$  |
| $7294 - 2860 = \square \rightarrow \boxed{\text{L}}$  | $11987 - 4660 = \square \rightarrow \boxed{\text{U}}$ | $8108 - 2536 = \square \rightarrow \boxed{\text{P}}$  |
| $8767 - 4100 = \square \rightarrow \boxed{\text{Z}}$  | $8293 - 2350 = \square \rightarrow \boxed{\text{S}}$  | $11829 - 4856 = \square \rightarrow \boxed{\text{D}}$ |
| $11901 - 3663 = \square \rightarrow \boxed{\text{R}}$ | $5269 - 945 = \square \rightarrow \boxed{\text{A}}$   |                                                       |

Scratch space:

**CLUE 4**
**Multiplication facts (1-12)**

The stadium staff arranged the practice cones into identical equal groups across the grass. Multiply the rows and columns to crack the fourth memo.

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

|          |    |    |    |    |    |    |    |    |    |    |    |          |          |    |    |    |    |
|----------|----|----|----|----|----|----|----|----|----|----|----|----------|----------|----|----|----|----|
| <b>B</b> |    |    |    |    |    |    |    |    |    |    |    | <b>B</b> | <b>B</b> |    |    |    |    |
| 70       | 36 | 12 | 4  | 14 | 22 | 14 | 10 | 12 | 4  | 36 | 36 | 4        | 70       | 70 | 33 | 32 | 28 |
|          |    |    |    |    |    |    |    |    |    |    |    |          |          |    |    |    |    |
| 20       | 22 | 36 | 22 | 64 | 33 | 66 | 32 | 14 | 32 | 22 | 12 | 36       | 132      | 33 | 12 | 54 |    |

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

$4 \times 8 = \square \rightarrow \text{N}$

$12 \times 3 = \square \rightarrow \text{R}$

$6 \times 9 = \square \rightarrow \text{L}$

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

$1 \times 10 = \square \rightarrow \text{H}$

$8 \times 8 = \square \rightarrow \text{F}$

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

$2 \times 2 = \square \rightarrow \text{I}$

$11 \times 6 = \square \rightarrow \text{U}$

$12 \times 11 = \square \rightarrow \text{G}$

$2 \times 11 = \square \rightarrow \text{E}$

$4 \times 5 = \square \rightarrow \text{W}$

$2 \times 7 = \square \rightarrow \text{D}$

$12 \times 1 = \square \rightarrow \text{A}$

Scratch space:

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

The referee divided the spare cleats evenly among the four practice squads before kickoff. Solve the division problem to reveal 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:**

$7 \div 1 = \boxed{\phantom{00}}$

$64 \div 8 = \boxed{\phantom{00}}$

$30 \div 6 = \boxed{\phantom{00}}$

$63 \div 7 = \boxed{\phantom{00}}$

$22 \div 11 = \boxed{\phantom{00}}$

$3 \div 1 = \boxed{\phantom{00}}$

$36 \div 6 = \boxed{\phantom{00}}$

$110 \div 11 = \boxed{\phantom{00}}$

$32 \div 8 = \boxed{\phantom{00}}$

$33 \div 3 = \boxed{\phantom{00}}$

$72 \div 6 = \boxed{\phantom{00}}$

**Step 2 - cross out the sentence with each answer:**

1. The villain curved a sneaky shot past the keeper, then adjusted their captain armband.
2. The villain executed a rapid speed dribble, then smoothed their padded shorts.
3. The villain scored with a wild bicycle kick, then adjusted their captain armband.
4. The villain scored with a wild bicycle kick, then smoothed their padded shorts.
5. The villain scored with a wild bicycle kick, then fixed their neon headband.
6. The villain curved a sneaky shot past the keeper, then adjusted their glowing gloves.
7. The villain executed a rapid speed dribble, then fixed their neon headband.
8. The villain leaped for a heavy power header, then fixed their neon headband.
9. The villain curved a sneaky shot past the keeper, then smoothed their padded shorts.
10. The villain executed a rapid speed dribble, then adjusted their glowing gloves.
11. The villain curved a sneaky shot past the keeper, then fixed their neon headband.
12. The villain scored with a wild bicycle kick, then adjusted their glowing gloves.

# Answer Key

## The Golden Trophy Mystery

### Culprit: Alexia Putellas

curve shot · captain armband · right footed · braided hair · loud vuvuzela

Trail: Start 21 → Clue 1 16 → Clue 2 12 → Clue 3 6 → Clue 4 4 → Clue 5 1

#### Clue 1 (Place value): "THE SUSPECT DOES NOT WEAR GLOWING GLOVES"

What is the value of the 9 in 39,533? = 9000 (T) · What is the value of the 3 in 71,835? = 30 (A) · What is the value of the 2 in 705,233? = 200 (N) · What is the value of the 7 in 89,575? = 70 (H) · What is the value of the 4 in 994,391? = 4000 (V) · What is the value of the 7 in 37,602? = 7000 (R) · What is the value of the 3 in 803,896? = 3000 (E) · What is the value of the 5 in 75,138? = 5000 (C) · What is the value of the 2 in 12,368? = 2000 (P) · What is the value of the 6 in 190,164? = 60 (L) · What is the value of the 1 in 21,533? = 1000 (O) · What is the value of the 8 in 328,644? = 8000 (G) · What is the value of the 9 in 606,948? = 900 (S) · What is the value of the 5 in 614,153? = 50 (W) · What is the value of the 9 in 621,891? = 90 (I) · What is the value of the 8 in 46,282? = 80 (U) · What is the value of the 6 in 98,650? = 600 (D)

#### Clue 2 (Addition): "A RIGHT FOOTPRINT WAS FOUND IN THE MUD"

3466 + 3808 = 7274 (A) · 3175 + 1694 = 4869 (H) · 2608 + 4145 = 6753 (N) · 4031 + 5247 = 9278 (T) · 3783 + 4207 = 7990 (S) · 3945 + 2146 = 6091 (U) · 3531 + 5315 = 8846 (I) · 2858 + 4076 = 6934 (P) · 5393 + 4334 = 9727 (G) · 3731 + 2084 = 5815 (F) · 1082 + 1574 = 2656 (O) · 1691 + 1927 = 3618 (W) · 3167 + 2846 = 6013 (R) · 1233 + 1773 = 3006 (D) · 3348 + 3241 = 6589 (E) · 2408 + 2363 = 4771 (M)

#### Clue 3 (Subtraction): "THE LOUD VUVUZELA FROZE THE SNEAKY PLAYER"

5313 - 2075 = 3238 (T) · 5549 - 803 = 4746 (F) · 3783 - 407 = 3376 (Y) · 8246 - 2179 = 6067 (N) · 6039 - 2567 = 3472 (V) · 5291 - 1667 = 3624 (K) · 4059 - 2347 = 1712 (H) · 10399 - 1607 = 8792 (E) · 5477 - 3343 = 2134 (O) · 7294 - 2860 = 4434 (L) · 11987 - 4660 = 7327 (U) · 8108 - 2536 = 5572 (P) · 8767 - 4100 = 4667 (Z) · 8293 - 2350 = 5943 (S) · 11829 - 4856 = 6973 (D) · 11901 - 3663 = 8238 (R) · 5269 - 945 = 4324 (A)

#### Clue 4 (Multiplication facts (1-12)): "BRAIDED HAIR RIBBONS WERE FOUND NEAR GOAL"

7 × 10 = 70 (B) · 4 × 8 = 32 (N) · 12 × 3 = 36 (R) · 6 × 9 = 54 (L) · 7 × 4 = 28 (S) · 1 × 10 = 10 (H) · 8 × 8 = 64 (F) · 11 × 3 = 33 (O) · 2 × 2 = 4 (I) · 11 × 6 = 66 (U) · 12 × 11 = 132 (G) · 2 × 11 = 22 (E) · 4 × 5 = 20 (W) · 2 × 7 = 14 (D) · 12 × 1 = 12 (A)

#### Clue 5 (Division facts (1-12)): surviving statement is box 1 → Alexia Putellas

7 ÷ 1 = 7 · 64 ÷ 8 = 8 · 30 ÷ 6 = 5 · 63 ÷ 7 = 9 · 22 ÷ 11 = 2 · 3 ÷ 1 = 3 · 36 ÷ 6 = 6 · 110 ÷ 11 = 10 · 32 ÷ 8 = 4 · 33 ÷ 3 = 11 · 72 ÷ 6 = 12