The Golden Trophy Heist

Grade 10 math · Multiplication, Word problems, Multi-step word problems, Pythagorean theorem, Division · Reading level grades 7-9

Detective: _____ **Date:** _____

Right before the final whistle of the tournament, someone broke into the team locker room and made off with the coveted Championship Cup. Match security has narrowed down the list of suspects to players seen near the tunnel.

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.

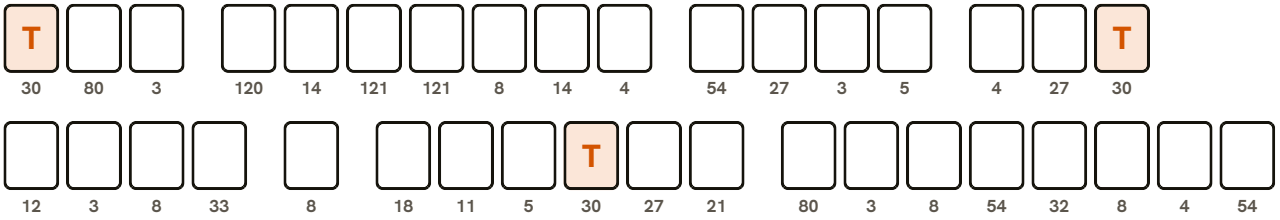
NAME	SIGNATURE MOVE	GEAR PIECE	DOMINANT FOOT	HAIRSTYLE	VULNERABILITY
Lucy Bronze	Curved Free Kick	Custom Headband	Right Footed	Curly Ponytail	Fog Horn
Aitana Bonmati	Bicycle Kick	Carbon Shin Guards	Right Footed	Curly Ponytail	Yellow Card
Jude Bellingham	No Look Pass	Neon Cleats	Right Footed	Curly Ponytail	Loud Whistle
Bruno Fernandes	Knuckleball Shot	Grip Gloves	Left Footed	Braided Top	Fog Horn
Rose Lavelle	Knuckleball Shot	Custom Headband	Right Footed	Short Fade	Fog Horn
Cristiano Ronaldo	Bicycle Kick	Captain Armband	Left Footed	Braided Top	Loud Whistle
Pedri	Diving Header	Custom Headband	Left Footed	Curly Ponytail	Yellow Card
Bukayo Saka	Knuckleball Shot	Grip Gloves	Right Footed	Short Fade	Yellow Card
Son Heungmin	Diving Header	Carbon Shin Guards	Left Footed	Braided Top	Fog Horn
Lionel Messi	Knuckleball Shot	Custom Headband	Right Footed	Curly Ponytail	Fog Horn
Erling Haaland	Diving Header	Grip Gloves	Left Footed	Braided Top	Fog Horn
Marcus Rashford	Diving Header	Custom Headband	Right Footed	Braided Top	Loud Whistle
Virgil van Dijk	Knuckleball Shot	Carbon Shin Guards	Left Footed	Braided Top	Yellow Card
Sam Kerr	Knuckleball Shot	Grip Gloves	Right Footed	Short Fade	Fog Horn
Ada Hegerberg	Diving Header	Captain Armband	Left Footed	Curly Ponytail	Fog Horn
Cole Palmer	Bicycle Kick	Grip Gloves	Left Footed	Curly Ponytail	Yellow Card
Declan Rice	Curved Free Kick	Grip Gloves	Right Footed	Short Fade	Yellow Card
Trent Alexander	No Look Pass	Custom Headband	Left Footed	Braided Top	Fog Horn
Alex Morgan	Curved Free Kick	Grip Gloves	Left Footed	Braided Top	Fog Horn
Chloe Kelly	Diving Header	Captain Armband	Right Footed	Braided Top	Fog Horn
Kevin De Bruyne	No Look Pass	Neon Cleats	Left Footed	Short Fade	Fog Horn

make your own at mathcrackers.com

CLUE 1 Multiplication facts (1-12)

> The head coach calculates team gear totals across multiple practice drills to unlock the locker room safety box.

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



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

Scratch space:

CLUE 2 Word problems

> Security reviews the ticket office records and solves total stadium sales to locate the locker room surveillance log.

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

A witness saw the villain was

L									
78	96	35	47	35	87	87	47	96	89

.

Kit manager found 46 scouting clipboards yesterday and 32 more today. How many scouting clipboards in all?

Answer: ☐ → **L**

Kit manager found 27 corner flags yesterday and 60 more today. How many corner flags in all?

Answer: ☐ → **O**

There were 59 corner flags. 12 were used up. How many corner flags are left?

Answer: ☐ → **T**

Kit manager found 83 water bottles yesterday and 13 more today. How many water bottles in all?

Answer: ☐ → **E**

Kit manager found 40 soccer balls yesterday and 49 more today. How many soccer balls in all?

Answer: ☐ → **D**

Kit manager lined up 7 rows of 5 water bottles. How many water bottles in all?

Answer: ☐ → **F**

Scratch space:

CLUE 3 Multi-step word problems

> The equipment manager counts identical rows of training cones laid out on the practice pitch to uncover the clue.

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

Someone scared the villain off with | F | | | | | | | | .

59	8	53	67	8	13	25

There were 213 soccer balls in all. 4 Metropolis FC used 9 soccer balls each. The other 3 Metropolis FC shared the rest equally. How many soccer balls did each of the other Metropolis FC get?

Answer: ☐ → **F**

Kit manager collected 25 water bottles in the morning and 53 water bottles in the afternoon, then split them equally among 6 Metropolis FC. How many water bottles did each get?

Answer: ☐ → **R**

There were 145 scouting clipboards in all. 39 scouting clipboards were set aside. The rest were shared equally among 2 Metropolis FC. How many scouting clipboards did each get?

Answer: ☐ → **G**

There were 131 water bottles in all. 6 water bottles were set aside. The rest were shared equally among 5 Metropolis FC. How many water bottles did each get?

Answer: ☐ → **N**

Kit manager earned 5 water bottles in each of 5 rounds, plus 49 bonus water bottles. Then 7 water bottles were lost. How many water bottles are left?

Answer: ☐ → **H**

Kit manager collected 6 soccer balls in the morning and 10 soccer balls in the afternoon, then split them equally among 2 Metropolis FC. How many soccer balls did each get?

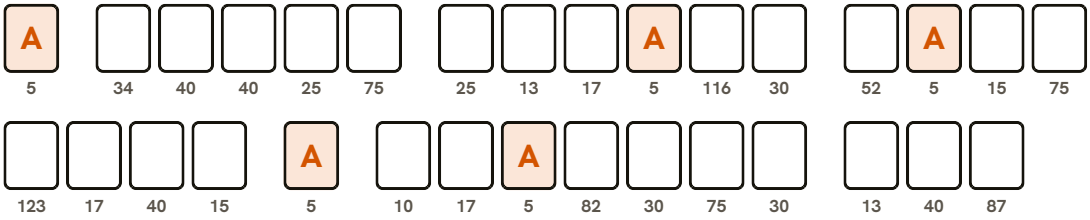
Answer: ☐ → **O**

Scratch space:

CLUE 4 Pythagorean theorem

> The match analyst measures the exact diagonal distance of the suspect across the pitch using field coordinates.

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



legs 3 and 4, hypotenuse = ☐ → **A**

legs 8 and 15, hypotenuse = ☐ → **R**

legs 7 and 24, hypotenuse = ☐ → **S**

legs 6 and 8, hypotenuse = ☐ → **B**

legs 27 and 120, hypotenuse = ☐ → **F**

legs 24 and 32, hypotenuse = ☐ → **O**

legs 16 and 30, hypotenuse = ☐ → **L**

legs 80 and 84, hypotenuse = ☐ → **N**

legs 20 and 48, hypotenuse = ☐ → **C**

legs 18 and 24, hypotenuse = ☐ → **D**

legs 5 and 12, hypotenuse = ☐ → **T**

legs 60 and 63, hypotenuse = ☐ → **P**

legs 21 and 72, hypotenuse = ☐ → **E**

legs 18 and 80, hypotenuse = ☐ → **I**

legs 9 and 12, hypotenuse = ☐ → **M**

Scratch space:

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

> The referee divides the remaining energy drink bottles equally among squad members to reveal the final lead.

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:

18 ÷ 3 = ☐	20 ÷ 4 = ☐	8 ÷ 2 = ☐	55 ÷ 5 = ☐	60 ÷ 6 = ☐
12 ÷ 6 = ☐	90 ÷ 10 = ☐	12 ÷ 12 = ☐	49 ÷ 7 = ☐	80 ÷ 10 = ☐
36 ÷ 12 = ☐				

Step 2 - cross out the sentence with each answer:

1. The villain dribbles past the stadium security, then swipes the championship match ball.
2. The villain delivers a crisp no look pass, then pockets the tournament entry key.
3. The villain performs a swift bicycle kick, then pockets the tournament entry key.
4. The villain header strikes the crossbar, then pockets the tournament entry key.
5. The villain unleashes a curved free kick, then steals the MVP medal from the locker.
6. The villain header strikes the crossbar, then steals the MVP medal from the locker.
7. The villain dribbles past the stadium security, then pockets the tournament entry key.
8. The villain dribbles past the stadium security, then steals the MVP medal from the locker.
9. The villain header strikes the crossbar, then swipes the championship match ball.
10. The villain dribbles past the stadium security, then snatches the team strategy playbook.
11. The villain unleashes a curved free kick, then swipes the championship match ball.
12. The villain performs a swift bicycle kick, then steals the MVP medal from the locker.

TEACHER / PARENT

Answer Key

The Golden Trophy Heist

Culprit: Bruno Fernandes

Knuckleball Shot · Grip Gloves · Left Footed · Braided Top · Fog Horn

Trail: Start 21 → Clue 1 15 → Clue 2 9 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE VILLAIN DOES NOT WEAR A CUSTOM HEADBAND"

5 × 6 = 30 (T) · 12 × 10 = 120 (V) · 8 × 10 = 80 (H) · 4 × 8 = 32 (B) · 2 × 7 = 14 (I) · 3 × 11 = 33 (R) · 2 × 6 = 12 (W) · 9 × 6 = 54 (D) · 3 × 6 = 18 (C) · 1 × 3 = 3 (E) · 5 × 1 = 5 (S) · 2 × 2 = 4 (N) · 11 × 1 = 11 (U) · 7 × 3 = 21 (M) · 8 × 1 = 8 (A) · 9 × 3 = 27 (O) · 11 × 11 = 121 (L)

Clue 2 (Word problems): "LEFT FOOTED"

Kit manager found 46 scouting clipboards yesterday and 32 more today. How many scouting clipboards in all? = 78 (L) · Kit manager found 27 corner flags yesterday and 60 more today. How many corner flags in all? = 87 (O) · There were 59 corner flags. 12 were used up. How many corner flags are left? = 47 (T) · Kit manager found 83 water bottles yesterday and 13 more today. How many water bottles in all? = 96 (E) · Kit manager found 40 soccer balls yesterday and 49 more today. How many soccer balls in all? = 89 (D) · Kit manager lined up 7 rows of 5 water bottles. How many water bottles in all? = 35 (F)

Clue 3 (Multi-step word problems): "FOG HORN"

There were 213 soccer balls in all. 4 Metropolis FC used 9 soccer balls each. The other 3 Metropolis FC shared the rest equally. How many soccer balls did each of the other Metropolis FC get? = 59 (F) · Kit manager collected 25 water bottles in the morning and 53 water bottles in the afternoon, then split them equally among 6 Metropolis FC. How many water bottles did each get? = 13 (R) · There were 145 scouting clipboards in all. 39 scouting clipboards were set aside. The rest were shared equally among 2 Metropolis FC. How many scouting clipboards did each get? = 53 (G) · There were 131 water bottles in all. 6 water bottles were set aside. The rest were shared equally among 5 Metropolis FC. How many water bottles did each get? = 25 (N) · Kit manager earned 5 water bottles in each of 5 rounds, plus 49 bonus water bottles. Then 7 water bottles were lost. How many water bottles are left? = 67 (H) · Kit manager collected 6 soccer balls in the morning and 10 soccer balls in the afternoon, then split them equally among 2 Metropolis FC. How many soccer balls did each get? = 8 (O)

Clue 4 (Pythagorean theorem): "A LOOSE STRAND CAME FROM A BRAIDED TOP"

legs 3 and 4, hypotenuse = 5 (A) · legs 8 and 15, hypotenuse = 17 (R) · legs 7 and 24, hypotenuse = 25 (S) · legs 6 and 8, hypotenuse = 10 (B) · legs 27 and 120, hypotenuse = 123 (F) · legs 24 and 32, hypotenuse = 40 (O) · legs 16 and 30, hypotenuse = 34 (L) · legs 80 and 84, hypotenuse = 116 (N) · legs 20 and 48, hypotenuse = 52 (C) · legs 18 and 24, hypotenuse = 30 (D) · legs 5 and 12, hypotenuse = 13 (T) · legs 60 and 63, hypotenuse = 87 (P) · legs 21 and 72, hypotenuse = 75 (E) · legs 18 and 80, hypotenuse = 82 (I) · legs 9 and 12, hypotenuse = 15 (M)

Clue 5 (Division facts (1-12)): surviving statement is box 12 → Bruno Fernandes

18 ÷ 3 = 6 · 20 ÷ 4 = 5 · 8 ÷ 2 = 4 · 55 ÷ 5 = 11 · 60 ÷ 6 = 10 · 12 ÷ 6 = 2 · 90 ÷ 10 = 9 · 12 ÷ 12 = 1 · 49 ÷ 7 = 7 · 80 ÷ 10 = 8 · 36 ÷ 12 = 3