The Great Stadium Trophy Caper

Grade 9 math · Multiplication, Two-step equations, Exponents, Square roots, Division · Reading level grades 3-4

Detective: _____ **Date:** _____

Just minutes before the championship match, someone sneaked into the trophy room and stole the Golden Cup! Use your math skills to eliminate suspects and find 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 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 KICK	GEAR ITEM	DOMINANT FOOT	HAIRSTYLE	DISTRACTION
Cristiano Ronaldo	Knuckleball	Headband	Left Footed	Curly Afro	Bright Floodlights
Antoine Griezmann	Knuckleball	Shinguards	Right Footed	Spiky Hair	Bright Floodlights
Alex Morgan	Volley Shot	Captain Armband	Left Footed	Curly Afro	Whistle Sound
Jamal Musiala	Knuckleball	Headband	Left Footed	Slicked Back	Bright Floodlights
Marcus Rashford	Curling Free Kick	Headband	Left Footed	Spiky Hair	Whistle Sound
Luka Modric	Curling Free Kick	Padded Gloves	Left Footed	Spiky Hair	Bright Floodlights
Marta	Knuckleball	Captain Armband	Left Footed	Curly Afro	Bright Floodlights
Jude Bellingham	Bicycle Kick	Headband	Left Footed	Curly Afro	Slippery Grass
Virgil van Dijk	Curling Free Kick	Captain Armband	Left Footed	Spiky Hair	Bright Floodlights
Mohamed Salah	Rainbow Flick	Shinguards	Right Footed	Slicked Back	Whistle Sound
Declan Rice	Rainbow Flick	Captain Armband	Left Footed	Slicked Back	Slippery Grass
Bruno Fernandes	Curling Free Kick	Captain Armband	Right Footed	Curly Afro	Bright Floodlights
Sam Kerr	Rainbow Flick	Captain Armband	Right Footed	Curly Afro	Bright Floodlights
Erling Haaland	Volley Shot	Padded Gloves	Left Footed	Slicked Back	Slippery Grass
Son Heung Min	Bicycle Kick	Captain Armband	Left Footed	Curly Afro	Bright Floodlights
Harry Kane	Knuckleball	Shinguards	Left Footed	Curly Afro	Bright Floodlights
Megan Rapinoe	Knuckleball	Shinguards	Left Footed	Spiky Hair	Slippery Grass
Lionel Messi	Rainbow Flick	Padded Gloves	Left Footed	Curly Afro	Bright Floodlights
Bukayo Saka	Rainbow Flick	Shinguards	Left Footed	Slicked Back	Bright Floodlights
Kylian Mbappe	Volley Shot	Captain Armband	Right Footed	Curly Afro	Bright Floodlights
Kevin De Bruyne	Rainbow Flick	Headband	Right Footed	Spiky Hair	Slippery Grass

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CLUE 1 Multiplication facts (1-12)

> The stadium equipment manager stacked crates of soccer balls in equal rows. Solve this multiplication puzzle to uncover the first clue.

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

T																	T		
33	54	55	11	35	90	90	20	35	32	84	22	55	50	32	22	33			

110	55	20	40	60	20	84	84	55	84	27	90	22	11	55	50				

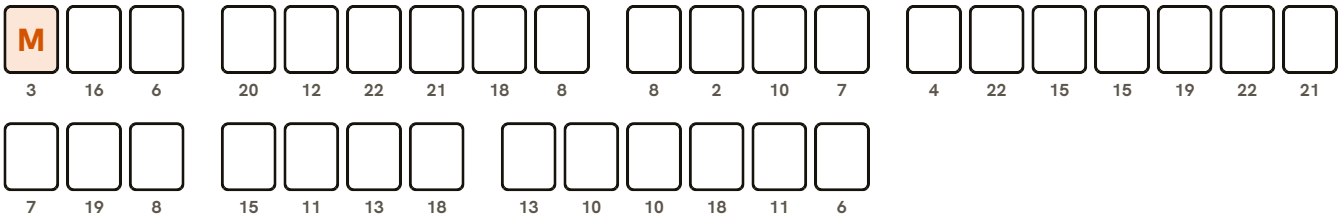
3 × 11 = ☐ → T	11 × 5 = ☐ → E	10 × 6 = ☐ → P
3 × 9 = ☐ → G	11 × 1 = ☐ → V	4 × 8 = ☐ → N
12 × 7 = ☐ → D	10 × 4 = ☐ → R	10 × 5 = ☐ → S
9 × 10 = ☐ → L	5 × 7 = ☐ → I	11 × 2 = ☐ → O
10 × 11 = ☐ → W	4 × 5 = ☐ → A	6 × 9 = ☐ → H

Scratch space:

CLUE 2 Two-step equations

> The scoreboard system was locked behind an equation involving ticket sales and snack bar totals. Solve it to decode the clue.

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



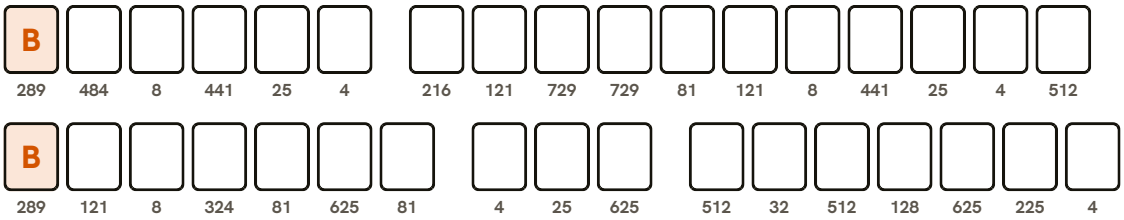
7x + 1 = 22, x = ☐ → M	5x + 5 = 100, x = ☐ → A	8x + 2 = 162, x = ☐ → P
8x + 9 = 113, x = ☐ → F	4x + 6 = 90, x = ☐ → N	8x + 8 = 104, x = ☐ → R
4x + 2 = 74, x = ☐ → T	4x + 9 = 69, x = ☐ → L	3x + 5 = 35, x = ☐ → O
5x + 11 = 51, x = ☐ → S	5x + 5 = 60, x = ☐ → E	5x + 12 = 22, x = ☐ → H
2x + 12 = 20, x = ☐ → V	3x + 2 = 50, x = ☐ → U	3x + 3 = 69, x = ☐ → I
4x + 4 = 28, x = ☐ → D	2x + 1 = 15, x = ☐ → W	

Scratch space:

CLUE 3 Exponents

> The floodlight tower uses exponential power grids that double output per level. Calculate the power total to reveal the next clue.

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



17^2 = ☐ → B

3^4 = ☐ → D

3^6 = ☐ → O

2^5 = ☐ → U

21^2 = ☐ → G

5^4 = ☐ → E

15^2 = ☐ → C

6^3 = ☐ → F

5^2 = ☐ → H

2^3 = ☐ → I

2^7 = ☐ → P

2^2 = ☐ → T

18^2 = ☐ → N

8^3 = ☐ → S

11^2 = ☐ → L

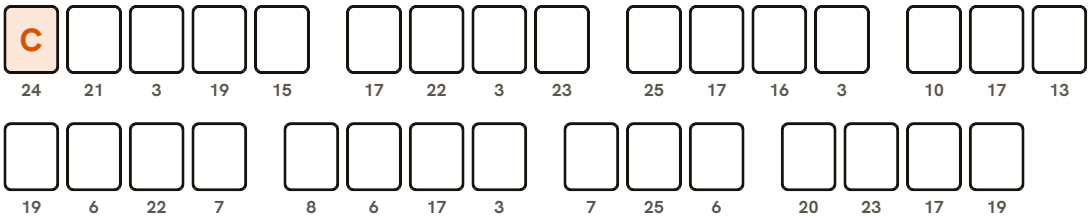
22^2 = ☐ → R

Scratch space:

CLUE 4 Square roots

> The groundskeeper marked out a square practice grid and needs to find its side length. Solve the square root problem to continue.

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



sqrt(576) = ☐ → C

sqrt(49) = ☐ → T

sqrt(529) = ☐ → O

sqrt(100) = ☐ → W

sqrt(225) = ☐ → Y

sqrt(625) = ☐ → H

sqrt(400) = ☐ → G

sqrt(169) = ☐ → S

sqrt(36) = ☐ → E

sqrt(361) = ☐ → L

sqrt(256) = ☐ → I

sqrt(64) = ☐ → N

sqrt(9) = ☐ → R

sqrt(441) = ☐ → U

sqrt(289) = ☐ → A

sqrt(484) = ☐ → F

Scratch space:

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

> The coach is dividing energy drinks equally among all players on the bench. Solve this division problem to get 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:

6 ÷ 2 = ☐	36 ÷ 6 = ☐	121 ÷ 11 = ☐	28 ÷ 7 = ☐	100 ÷ 10 = ☐
60 ÷ 5 = ☐	10 ÷ 10 = ☐	10 ÷ 2 = ☐	70 ÷ 10 = ☐	14 ÷ 7 = ☐
90 ÷ 10 = ☐				

Step 2 - cross out the sentence with each answer:

1. The villain blasted a volley shot, then adjusted a captain armband.
2. The villain curled a free kick, then strapped on shinguards.
3. The villain curved a knuckleball shot, then strapped on shinguards.
4. The villain curled a free kick, then adjusted a captain armband.
5. The villain blasted a volley shot, then laced up neon cleats.
6. The villain curved a knuckleball shot, then adjusted a headband.
7. The villain struck a bicycle kick, then laced up neon cleats.
8. The villain struck a bicycle kick, then adjusted a captain armband.
9. The villain curved a knuckleball shot, then laced up neon cleats.
10. The villain blasted a volley shot, then pulled on padded gloves.
11. The villain curved a knuckleball shot, then adjusted a captain armband.
12. The villain performed a rainbow flick, then laced up neon cleats.

TEACHER / PARENT

Answer Key

The Great Stadium Trophy Caper

Culprit: Son Heung Min

Bicycle Kick · Captain Armband · Left Footed · Curly Afro · Bright Floodlights

Trail: Start 21 → Clue 1 18 → 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"

3 × 11 = 33 (T) · 11 × 5 = 55 (E) · 10 × 6 = 60 (P) · 3 × 9 = 27 (G) · 11 × 1 = 11 (V) · 4 × 8 = 32 (N) · 12 × 7 = 84 (D) · 10 × 4 = 40 (R) · 10 × 5 = 50 (S) · 9 × 10 = 90 (L) · 5 × 7 = 35 (I) · 11 × 2 = 22 (O) · 10 × 11 = 110 (W) · 4 × 5 = 20 (A) · 6 × 9 = 54 (H)

Clue 2 (Two-step equations): "MUD PRINTS SHOW VILLAIN WAS LEFT FOOTED"

7x + 1 = 22, x = 3 (M) · 5x + 5 = 100, x = 19 (A) · 8x + 2 = 162, x = 20 (P) · 8x + 9 = 113, x = 13 (F) · 4x + 6 = 90, x = 21 (N) · 8x + 8 = 104, x = 12 (R) · 4x + 2 = 74, x = 18 (T) · 4x + 9 = 69, x = 15 (L) · 3x + 5 = 35, x = 10 (O) · 5x + 11 = 51, x = 8 (S) · 5x + 5 = 60, x = 11 (E) · 5x + 12 = 22, x = 2 (H) · 2x + 12 = 20, x = 4 (V) · 3x + 2 = 50, x = 16 (U) · 3x + 3 = 69, x = 22 (I) · 4x + 4 = 28, x = 6 (D) · 2x + 1 = 15, x = 7 (W)

Clue 3 (Exponents): "BRIGHT FLOODLIGHTS BLINDED THE SUSPECT"

17^2 = 289 (B) · 3^4 = 81 (D) · 3^6 = 729 (O) · 2^5 = 32 (U) · 21^2 = 441 (G) · 5^4 = 625 (E) · 15^2 = 225 (C) · 6^3 = 216 (F) · 5^2 = 25 (H) · 2^3 = 8 (I) · 2^7 = 128 (P) · 2^2 = 4 (T) · 18^2 = 324 (N) · 8^3 = 512 (S) · 11^2 = 121 (L) · 22^2 = 484 (R)

Clue 4 (Square roots): "CURLY AFRO HAIR WAS LEFT NEAR THE GOAL"

sqrt(576) = 24 (C) · sqrt(49) = 7 (T) · sqrt(529) = 23 (O) · sqrt(100) = 10 (W) · sqrt(225) = 15 (Y) · sqrt(625) = 25 (H) · sqrt(400) = 20 (G) · sqrt(169) = 13 (S) · sqrt(36) = 6 (E) · sqrt(361) = 19 (L) · sqrt(256) = 16 (I) · sqrt(64) = 8 (N) · sqrt(9) = 3 (R) · sqrt(441) = 21 (U) · sqrt(289) = 17 (A) · sqrt(484) = 22 (F)

Clue 5 (Division facts (1-12)): surviving statement is box 8 → Son Heung Min

6 ÷ 2 = 3 · 36 ÷ 6 = 6 · 121 ÷ 11 = 11 · 28 ÷ 7 = 4 · 100 ÷ 10 = 10 · 60 ÷ 5 = 12 · 10 ÷ 10 = 1 · 10 ÷ 2 = 5 · 70 ÷ 10 = 7 · 14 ÷ 7 = 2 · 90 ÷ 10 = 9