



The Autumn Cricket Cup Mystery

Grade 7 math · Fractions of a number, Multi-step word problems, Multiplication, Integers · Reading level grades 5-6

Detective: _____ **Date:** _____

During the final tournament of the autumn cricket season, someone sabotaged the pitch and hid the Golden Wicket Trophy. Solve the clues 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 Trophy Tamperer is _____

Possible suspects

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

NAME	DELIVERY STYLE	CRICKET GEAR	BATTING STANCE	CAP COLOR	DISTRACTION
Hardik Pandya	Off Spin	Padded Helmets	Right Handed Stance	Amber Cap	Slippery Fallen Leaves
Shakib Al Hasan	Leg Spin	Golden Bat	Left Handed Stance	Scarlet Cap	Slippery Fallen Leaves
Jasprit Bumrah	Knuckleball	Zinc Facepaint	Right Handed Stance	Scarlet Cap	Early Sunset Shadows
Jos Buttler	Knuckleball	Golden Bat	Left Handed Stance	Scarlet Cap	Early Sunset Shadows
Ravindra Jadeja	Leg Spin	Golden Bat	Right Handed Stance	Copper Cap	Early Sunset Shadows
Jonny Bairstow	Leg Spin	Spiked Cleats	Right Handed Stance	Scarlet Cap	Slippery Fallen Leaves
Joe Root	Knuckleball	Golden Bat	Right Handed Stance	Scarlet Cap	Early Sunset Shadows
Kane Williamson	Off Spin	Leather Gloves	Right Handed Stance	Scarlet Cap	Crisp Autumn Wind
David Warner	Fast Inswinger	Leather Gloves	Left Handed Stance	Scarlet Cap	Slippery Fallen Leaves
Rashid Khan	Knuckleball	Spiked Cleats	Left Handed Stance	Amber Cap	Crisp Autumn Wind
Mark Wood	Leg Spin	Spiked Cleats	Left Handed Stance	Scarlet Cap	Crisp Autumn Wind
Glenn Maxwell	Fast Inswinger	Spiked Cleats	Left Handed Stance	Copper Cap	Slippery Fallen Leaves
Quinton de Kock	Off Spin	Leather Gloves	Right Handed Stance	Scarlet Cap	Slippery Fallen Leaves
Sam Curran	Off Spin	Leather Gloves	Left Handed Stance	Scarlet Cap	Early Sunset Shadows
Chris Woakes	Leg Spin	Zinc Facepaint	Right Handed Stance	Scarlet Cap	Slippery Fallen Leaves
Ollie Pope	Fast Inswinger	Padded Helmets	Right Handed Stance	Copper Cap	Slippery Fallen Leaves
Pat Cummins	Knuckleball	Golden Bat	Right Handed Stance	Amber Cap	Early Sunset Shadows
Trent Boult	Bouncer Special	Leather Gloves	Right Handed Stance	Scarlet Cap	Slippery Fallen Leaves
Ben Stokes	Leg Spin	Padded Helmets	Right Handed Stance	Amber Cap	Slippery Fallen Leaves
Steve Smith	Fast Inswinger	Golden Bat	Right Handed Stance	Scarlet Cap	Slippery Fallen Leaves
Babar Azam	Leg Spin	Golden Bat	Left Handed Stance	Copper Cap	Slippery Fallen Leaves

CLUE 1
Fractions of a number

The groundskeeper counted a fraction of the match balls left on the autumn turf to narrow down the clues.

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

T																T
52	47	31	23	21	25	25	32	21	51	6	48	31	58	51	48	52
														T		
16	31	32	20	58	9	21	49	31	6	54	25	31	32	52	58	

$8/10 \text{ of } 65 = \square \rightarrow \text{T}$

$2/8 \text{ of } 84 = \square \rightarrow \text{I}$

$1/4 \text{ of } 196 = \square \rightarrow \text{K}$

$3/8 \text{ of } 128 = \square \rightarrow \text{O}$

$4/10 \text{ of } 145 = \square \rightarrow \text{S}$

$2/8 \text{ of } 36 = \square \rightarrow \text{P}$

$4/10 \text{ of } 50 = \square \rightarrow \text{R}$

$8/10 \text{ of } 20 = \square \rightarrow \text{W}$

$4/8 \text{ of } 50 = \square \rightarrow \text{L}$

$1/3 \text{ of } 93 = \square \rightarrow \text{E}$

$6/10 \text{ of } 90 = \square \rightarrow \text{C}$

$2/5 \text{ of } 80 = \square \rightarrow \text{A}$

$3/5 \text{ of } 85 = \square \rightarrow \text{N}$

$1/3 \text{ of } 69 = \square \rightarrow \text{V}$

$4/8 \text{ of } 12 = \square \rightarrow \text{D}$

$1/4 \text{ of } 188 = \square \rightarrow \text{H}$

Scratch space:

CLUE 2

Multi-step word problems

By calculating total overs and run penalties across multiple innings you uncover a hidden message.

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

A witness saw the villain was

R									D	E	D	S					C	E
16	7	87	14	32	14	45	55					32	45	55				

There were 137 wooden wickets in all. 9 wooden wickets were set aside. The rest were shared equally among 8 Gold Leaf Eleven. How many wooden wickets did each get?

Answer: → **R**

Scorer collected 11 autumn leaves in the morning and 3 autumn leaves in the afternoon, then split them equally among 2 Gold Leaf Eleven. How many autumn leaves did each get?

Answer: → **I**

There were 166 wooden wickets in all. 2 Gold Leaf Eleven used 28 wooden wickets each. The other 2 Gold Leaf Eleven shared the rest equally. How many wooden wickets did each of the other Gold Leaf Eleven get?

Answer: → **N**

Scorer earned 7 autumn leaves in each of 4 rounds, plus 24 bonus autumn leaves. Then 7 autumn leaves were lost. How many autumn leaves are left?

Answer: → **A**

Scorer earned 4 cricket balls in each of 4 rounds, plus 73 bonus cricket balls. Then 2 cricket balls were lost. How many cricket balls are left?

Answer: → **G**

Scorer filled 3 boxes with 4 autumn leaves each, then found 20 more autumn leaves. How many autumn leaves are there in all?

Answer: → **T**

There were 57 autumn leaves in all. 1 autumn leaves were set aside. The rest were shared equally among 4 Gold Leaf Eleven. How many autumn leaves did each get?

Answer: → **H**

Scratch space:

CLUE 3
Multiplication facts (1-12)

You multiply the rows of cricket kit bags stored in the pavilion to find where the culprit hid.

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

T											T									
16	9	90	18	55	84	84	48	55	10	16	49	55	28	28	90	56	8	10		
45	84	55	28	28	90	49	99	2	48	84	84	90	10	84	90	48	18	90	45	

$4 \times 4 = \square \rightarrow \text{**T**}$

$6 \times 8 = \square \rightarrow \text{**A**}$

$9 \times 10 = \square \rightarrow \text{**E**}$

$11 \times 5 = \square \rightarrow \text{**I**}$

$5 \times 2 = \square \rightarrow \text{**N**}$

$11 \times 9 = \square \rightarrow \text{**Y**}$

$7 \times 12 = \square \rightarrow \text{**L**}$

$5 \times 9 = \square \rightarrow \text{**S**}$

$7 \times 7 = \square \rightarrow \text{**R**}$

$3 \times 3 = \square \rightarrow \text{**H**}$

$9 \times 2 = \square \rightarrow \text{**V**}$

$2 \times 1 = \square \rightarrow \text{**F**}$

$8 \times 1 = \square \rightarrow \text{**O**}$

$4 \times 7 = \square \rightarrow \text{**P**}$

$8 \times 7 = \square \rightarrow \text{**D**}$

Scratch space:

CLUE 4 Integers

Tracking net run rates above and below zero gives you a vital hint about the suspect.

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

T					T			T									
23	27	12	1	12	23	12	11	23	6	19	12	22	18	10	20	1	2

						T			
8	11	2	5	14	12	23	11	2	13

$21 - (-2) = \boxed{} \rightarrow \boxed{\text{T}}$

$(-11) + 33 = \boxed{} \rightarrow \boxed{\text{F}}$

$(-7) + 21 = \boxed{} \rightarrow \boxed{\text{L}}$

$8 - (-5) = \boxed{} \rightarrow \boxed{\text{P}}$

$7 - (-5) = \boxed{} \rightarrow \boxed{\text{E}}$

$5 - (-13) = \boxed{} \rightarrow \boxed{\text{O}}$

$(-2) + 13 = \boxed{} \rightarrow \boxed{\text{C}}$

$(-12) + 14 = \boxed{} \rightarrow \boxed{\text{A}}$

$(-10) + 16 = \boxed{} \rightarrow \boxed{\text{I}}$

$(-7) + 8 = \boxed{} \rightarrow \boxed{\text{D}}$

$(-6) + 25 = \boxed{} \rightarrow \boxed{\text{V}}$

$(-10) + 18 = \boxed{} \rightarrow \boxed{\text{S}}$

$(-10) + 15 = \boxed{} \rightarrow \boxed{\text{R}}$

$(-8) + 18 = \boxed{} \rightarrow \boxed{\text{U}}$

$7 - (-13) = \boxed{} \rightarrow \boxed{\text{N}}$

$(-8) + 35 = \boxed{} \rightarrow \boxed{\text{H}}$

Scratch space:

CLUE 5**Fractions of a number - the last clue**

Taking a fraction of the autumn league trophy points reveals the final secret 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:

$6/10 \text{ of } 15 = \boxed{}$

$1/4 \text{ of } 16 = \boxed{}$

$1/10 \text{ of } 70 = \boxed{}$

$4/10 \text{ of } 30 = \boxed{}$

$1/3 \text{ of } 9 = \boxed{}$

$4/8 \text{ of } 16 = \boxed{}$

$2/6 \text{ of } 18 = \boxed{}$

$2/10 \text{ of } 5 = \boxed{}$

$1/8 \text{ of } 16 = \boxed{}$

$4/6 \text{ of } 15 = \boxed{}$

$4/8 \text{ of } 10 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain bowled a knuckleball pitch, then strapped on padded helmets.
2. The villain bowled a bouncer special, then laced up spiked cleats.
3. The villain bowled a leg spin delivery, then strapped on padded helmets.
4. The villain bowled an off spin delivery, then adjusted leather gloves.
5. The villain bowled a bouncer special, then swung a golden bat.
6. The villain bowled a leg spin delivery, then adjusted leather gloves.
7. The villain bowled a leg spin delivery, then applied zinc facepaint.
8. The villain bowled a knuckleball pitch, then applied zinc facepaint.
9. The villain bowled a bouncer special, then adjusted leather gloves.
10. The villain bowled a fast inswinger, then strapped on padded helmets.
11. The villain bowled a fast inswinger, then swung a golden bat.
12. The villain bowled an off spin delivery, then laced up spiked cleats.

Answer Key

The Autumn Cricket Cup Mystery

Culprit: Steve Smith

Fast Inswinger · Golden Bat · Right Handed Stance · Scarlet Cap · Slippery Fallen Leaves

Trail: Start 21 → Clue 1 17 → Clue 2 12 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Fractions of a number): "THE VILLAIN DOES NOT WEAR SPIKED CLEATS"

$8/10$ of 65 = 52 (T) · $2/8$ of 84 = 21 (I) · $1/4$ of 196 = 49 (K) · $3/8$ of 128 = 48 (O) · $4/10$ of 145 = 58 (S) · $2/8$ of 36 = 9 (P) · $4/10$ of 50 = 20 (R) · $8/10$ of 20 = 16 (W) · $4/8$ of 50 = 25 (L) · $1/3$ of 93 = 31 (E) · $6/10$ of 90 = 54 (C) · $2/5$ of 80 = 32 (A) · $3/5$ of 85 = 51 (N) · $1/3$ of 69 = 23 (V) · $4/8$ of 12 = 6 (D) · $1/4$ of 188 = 47 (H)

Clue 2 (Multi-step word problems): "RIGHT HANDED STANCE"

There were 137 wooden wickets in all. 9 wooden wickets were set aside. The rest were shared equally among 8 Gold Leaf Eleven. How many wooden wickets did each get? = 16 (R) · Scorer collected 11 autumn leaves in the morning and 3 autumn leaves in the afternoon, then split them equally among 2 Gold Leaf Eleven. How many autumn leaves did each get? = 7 (I) · There were 166 wooden wickets in all. 2 Gold Leaf Eleven used 28 wooden wickets each. The other 2 Gold Leaf Eleven shared the rest equally. How many wooden wickets did each of the other Gold Leaf Eleven get? = 55 (N) · Scorer earned 7 autumn leaves in each of 4 rounds, plus 24 bonus autumn leaves. Then 7 autumn leaves were lost. How many autumn leaves are left? = 45 (A) · Scorer earned 4 cricket balls in each of 4 rounds, plus 73 bonus cricket balls. Then 2 cricket balls were lost. How many cricket balls are left? = 87 (G) · Scorer filled 3 boxes with 4 autumn leaves each, then found 20 more autumn leaves. How many autumn leaves are there in all? = 32 (T) · There were 57 autumn leaves in all. 1 autumn leaves were set aside. The rest were shared equally among 4 Gold Leaf Eleven. How many autumn leaves did each get? = 14 (H)

Clue 3 (Multiplication facts (1-12)): "THE VILLAIN TRIPPED ON SLIPPERY FALLEN LEAVES"

$4 \times 4 = 16$ (T) · $6 \times 8 = 48$ (A) · $9 \times 10 = 90$ (E) · $11 \times 5 = 55$ (I) · $5 \times 2 = 10$ (N) · $11 \times 9 = 99$ (Y) · $7 \times 12 = 84$ (L) · $5 \times 9 = 45$ (S) · $7 \times 7 = 49$ (R) · $3 \times 3 = 9$ (H) · $9 \times 2 = 18$ (V) · $2 \times 1 = 2$ (F) · $8 \times 1 = 8$ (O) · $4 \times 7 = 28$ (P) · $8 \times 7 = 56$ (D)

Clue 4 (Integers): "THE DETECTIVE FOUND A SCARLET CAP"

$21 - (-2) = 23$ (T) · $(-11) + 33 = 22$ (F) · $(-7) + 21 = 14$ (L) · $8 - (-5) = 13$ (P) · $7 - (-5) = 12$ (E) · $5 - (-13) = 18$ (O) · $(-2) + 13 = 11$ (C) · $(-12) + 14 = 2$ (A) · $(-10) + 16 = 6$ (I) · $(-7) + 8 = 1$ (D) · $(-6) + 25 = 19$ (V) · $(-10) + 18 = 8$ (S) · $(-10) + 15 = 5$ (R) · $(-8) + 18 = 10$ (U) · $7 - (-13) = 20$ (N) · $(-8) + 35 = 27$ (H)

Clue 5 (Fractions of a number): surviving statement is box 11 → Steve Smith

$6/10$ of 15 = 9 · $1/4$ of 16 = 4 · $1/10$ of 70 = 7 · $4/10$ of 30 = 12 · $1/3$ of 9 = 3 · $4/8$ of 16 = 8 · $2/6$ of 18 = 6 · $2/10$ of 5 = 1 · $1/8$ of 16 = 2 · $4/6$ of 15 = 10 · $4/8$ of 10 = 5