



The Mystery of the Missing Trophy

Grade 3 math · Multiplication, Place value, Word problems, Rounding, Division · Reading level grades 3-4

Detective: _____ **Date:** _____

During the final match at the Grand Clay Championships, the golden tournament trophy vanished from center court! The head referee needs your detective skills to decode clues and identify the trophy snatcher before the awards ceremony.

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 snatcher is _____

Possible suspects

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

NAME	SIGNATURE SHOT	GEAR CHOICE	DOMINANT HAND	HEADWEAR	MATCH FLAW
Stefanos Tsitsipas	quick volley	padded band	left handed	neon yellow headband	squeaky sneakers
Aryna Sabalenka	topspin serve	vibration dampener	right handed	white sweatband	squeaky sneakers
Taylor Fritz	topspin serve	vibration dampener	right handed	neon yellow headband	scuffed ball
Roger Federer	high lob	vibration dampener	right handed	neon yellow headband	loose strings
Tommy Paul	quick volley	canvas visor	left handed	neon yellow headband	loose strings
Naomi Osaka	slice drop	neon grip	right handed	neon yellow headband	squeaky sneakers
Daniil Medvedev	quick volley	graphite racket	right handed	striped visor	squeaky sneakers
Jessica Pegula	quick volley	canvas visor	right handed	neon yellow headband	squeaky sneakers
Iga Swiatek	slice drop	canvas visor	left handed	striped visor	squeaky sneakers
Sloane Stephens	power smash	padded band	right handed	neon yellow headband	loose strings
Novak Djokovic	topspin serve	neon grip	right handed	white sweatband	squeaky sneakers
Alex de Minaur	power smash	canvas visor	left handed	white sweatband	loose strings
Venus Williams	high lob	canvas visor	left handed	neon yellow headband	loose strings
Rafael Nadal	slice drop	vibration dampener	left handed	white sweatband	loose strings
Jannik Sinner	high lob	padded band	right handed	neon yellow headband	squeaky sneakers
Andy Murray	slice drop	padded band	left handed	striped visor	scuffed ball
Carlos Alcaraz	slice drop	canvas visor	right handed	neon yellow headband	scuffed ball
Serena Williams	topspin serve	vibration dampener	right handed	neon yellow headband	squeaky sneakers
Madison Keys	high lob	graphite racket	right handed	neon yellow headband	squeaky sneakers
Frances Tiafoe	quick volley	vibration dampener	left handed	striped visor	loose strings
Coco Gauff	topspin serve	graphite racket	left handed	white sweatband	loose strings

CLUE 1
Multiplication facts (1-12)

The court marshal counted rows of stored tennis ball cans in the equipment locker.

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

T									T								T
40	12	36	44	56	44	50	36	4	40	1	3	36	44	48	3	40	

									T			
56	44	36	2	10	35	132	96	2	40	35	3	48

1	2	81	50	36	48	36	96

$8 \times 5 = \square \rightarrow$ T	$9 \times 9 = \square \rightarrow$ M	$4 \times 11 = \square \rightarrow$ S	$7 \times 8 = \square \rightarrow$ U
$2 \times 6 = \square \rightarrow$ H	$1 \times 3 = \square \rightarrow$ O	$5 \times 7 = \square \rightarrow$ I	$4 \times 9 = \square \rightarrow$ E
$1 \times 4 = \square \rightarrow$ C	$8 \times 12 = \square \rightarrow$ R	$6 \times 8 = \square \rightarrow$ N	$1 \times 1 = \square \rightarrow$ D
$12 \times 11 = \square \rightarrow$ B	$1 \times 2 = \square \rightarrow$ A	$10 \times 5 = \square \rightarrow$ P	
$5 \times 2 = \square \rightarrow$ V			

Scratch space:

CLUE 2 Place value

The digital scoreboard flashed the exact point total digit by digit.

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

A									A		A					
70	1000	2000	6000	50	200	3000	3000	3000	70	1000	70	400	2000	80	600	6000

	A							A						A		
600	70	50	30	200	30	60	300	70	40	200	400	300	200	70	7000	200

What is the value of the 7 in 575?

→ A

What is the value of the 3 in 8,322?

→ L

What is the value of the 6 in 564?

→ P

What is the value of the 4 in 5,457?

→ R

What is the value of the 5 in 856?

→ N

What is the value of the 8 in 387?

→ G

What is the value of the 6 in 16,142?

→ T

What is the value of the 1 in 31,633?

→ W

What is the value of the 6 in 8,633?

→ H

What is the value of the 3 in 13,822?

→ S

What is the value of the 3 in 237?

→ D

What is the value of the 4 in 148?

→ Y

What is the value of the 2 in 235?

→ E

What is the value of the 2 in 2,714?

→ I

What is the value of the 7 in 7,121?

→ V

Scratch space:

CLUE 3

Word problems

The tournament director solved the problem of sorting gear for the afternoon match.

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

Someone scared the villain off with

S

S
N

R
S

45 74 50 76 23 78 19 45 76 23 78 76 45

Ball retriever lined up 5 rows of 9 towels. How many towels in all?

Answer: → S

Ball retriever lined up 10 rows of 5 tennis balls. How many tennis balls in all?

Answer: → U

Ball retriever found 18 towels yesterday and 5 more today. How many towels in all?

Answer: → A

There were 105 towels. 27 were used up. How many towels are left?

Answer: → K

There were 56 tennis balls. 37 were used up. How many tennis balls are left?

Answer: → Y

There were 113 wristbands. 37 were used up. How many wristbands are left?

Answer: → E

Ball retriever found 48 tennis balls yesterday and 26 more today. How many tennis balls in all?

Answer: → Q

Scratch space:

CLUE 4 Rounding

The speed radar on the main court displayed a rounded estimate of the serve speed.

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

A													A			A		
600	4000	3000	90	4000	70	3000	700	700	90	30	40	3000	600	5000	6000	600	4000	5000
	A											A						
30	600	80	5000	20	90	300	300	3000	5000	4000	3000	600	20	4000	3000	9000		

Round 647 to the nearest hundred → **A**

Round 3,274 to the nearest thousand → **E**

Round 3,511 to the nearest thousand → **N**

Round 37 to the nearest ten → **H**

Round 4,504 to the nearest thousand → **D**

Round 24 to the nearest ten → **R**

Round 255 to the nearest hundred → **P**

Round 71 to the nearest ten → **Y**

Round 27 to the nearest ten → **W**

Round 9,473 to the nearest thousand → **T**

Round 729 to the nearest hundred → **L**

Round 76 to the nearest ten → **S**

Round 6,356 to the nearest thousand → **B**

Round 89 to the nearest ten → **O**

Scratch space:

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

The head coach divided all the practice balls equally into training baskets.

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:

$44 \div 11 = \square$

$10 \div 10 = \square$

$30 \div 6 = \square$

$14 \div 2 = \square$

$16 \div 2 = \square$

$60 \div 5 = \square$

$12 \div 2 = \square$

$36 \div 4 = \square$

$27 \div 9 = \square$

$14 \div 7 = \square$

$55 \div 5 = \square$

Step 2 - cross out the sentence with each answer:

1. The villain blocked a quick volley, then adjusted a canvas visor.
2. The villain unleashed a power smash, then adjusted a canvas visor.
3. The villain lofted a high lob, then wrapped a neon grip.
4. The villain chose a slice drop, then wrapped a neon grip.
5. The villain lofted a high lob, then strapped a padded band.
6. The villain unleashed a power smash, then attached a vibration dampener.
7. The villain hit a topspin serve, then adjusted a canvas visor.
8. The villain blocked a quick volley, then wrapped a neon grip.
9. The villain unleashed a power smash, then strapped a padded band.
10. The villain lofted a high lob, then swung a graphite racket.
11. The villain hit a topspin serve, then attached a vibration dampener.
12. The villain chose a slice drop, then adjusted a canvas visor.

Answer Key

The Mystery of the Missing Trophy

Culprit: Madison Keys

high lob · graphite racket · right handed · neon yellow headband · squeaky sneakers

Trail: Start 21 → Clue 1 15 → Clue 2 8 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE SUSPECT DOES NOT USE A VIBRATION DAMPENER"

$8 \times 5 = 40$ (T) · $9 \times 9 = 81$ (M) · $4 \times 11 = 44$ (S) · $7 \times 8 = 56$ (U) · $2 \times 6 = 12$ (H) · $1 \times 3 = 3$ (O) · $5 \times 7 = 35$ (I) · $4 \times 9 = 36$ (E) · $1 \times 4 = 4$ (C) · $8 \times 12 = 96$ (R) · $6 \times 8 = 48$ (N) · $1 \times 1 = 1$ (D) · $12 \times 11 = 132$ (B) · $1 \times 2 = 2$ (A) · $10 \times 5 = 50$ (P) · $5 \times 2 = 10$ (V)

Clue 2 (Place value): "A WITNESS SAW A RIGHT HANDED PLAYER LEAVE"

What is the value of the 7 in 575? = 70 (A) · What is the value of the 3 in 8,322? = 300 (L) · What is the value of the 6 in 564? = 60 (P) · What is the value of the 4 in 5,457? = 400 (R) · What is the value of the 5 in 856? = 50 (N) · What is the value of the 8 in 387? = 80 (G) · What is the value of the 6 in 16,142? = 6000 (T) · What is the value of the 1 in 31,633? = 1000 (W) · What is the value of the 6 in 8,633? = 600 (H) · What is the value of the 3 in 13,822? = 3000 (S) · What is the value of the 3 in 237? = 30 (D) · What is the value of the 4 in 148? = 40 (Y) · What is the value of the 2 in 235? = 200 (E) · What is the value of the 2 in 2,714? = 2000 (I) · What is the value of the 7 in 7,121? = 7000 (V)

Clue 3 (Word problems): "SQUEAKY SNEAKERS"

Ball retriever lined up 5 rows of 9 towels. How many towels in all? = 45 (S) · Ball retriever lined up 10 rows of 5 tennis balls. How many tennis balls in all? = 50 (U) · Ball retriever found 18 towels yesterday and 5 more today. How many towels in all? = 23 (A) · There were 105 towels. 27 were used up. How many towels are left? = 78 (K) · There were 56 tennis balls. 37 were used up. How many tennis balls are left? = 19 (Y) · There were 113 wristbands. 37 were used up. How many wristbands are left? = 76 (E) · Ball retriever found 48 tennis balls yesterday and 26 more today. How many tennis balls in all? = 74 (Q)

Clue 4 (Rounding): "A NEON YELLOW HEADBAND WAS DROPPED NEAR NET"

Round 647 to the nearest hundred = 600 (A) · Round 3,274 to the nearest thousand = 3000 (E) · Round 3,511 to the nearest thousand = 4000 (N) · Round 37 to the nearest ten = 40 (H) · Round 4,504 to the nearest thousand = 5000 (D) · Round 24 to the nearest ten = 20 (R) · Round 255 to the nearest hundred = 300 (P) · Round 71 to the nearest ten = 70 (Y) · Round 27 to the nearest ten = 30 (W) · Round 9,473 to the nearest thousand = 9000 (T) · Round 729 to the nearest hundred = 700 (L) · Round 76 to the nearest ten = 80 (S) · Round 6,356 to the nearest thousand = 6000 (B) · Round 89 to the nearest ten = 90 (O)

Clue 5 (Division facts (1-12)): surviving statement is box 10 → Madison Keys

$44 \div 11 = 4$ · $10 \div 10 = 1$ · $30 \div 6 = 5$ · $14 \div 2 = 7$ · $16 \div 2 = 8$ · $60 \div 5 = 12$ · $12 \div 2 = 6$ · $36 \div 4 = 9$ · $27 \div 9 = 3$ · $14 \div 7 = 2$ · $55 \div 5 = 11$