



The Case of the Missing Championship Trophy

Grade 4 math · Fractions of a number, Multiplication, Rounding, Addition · Reading level grades 3-4

Detective: _____ Date: _____

Just before tip-off at the championship game, someone sneaked into the locker room and snatched the golden basketball trophy! Coach Miller needs your detective skills to examine clues 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 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 MOVE	GEAR ITEM	SHOOTING HAND	HEADBAND COLOR	DISTRACTION
Kyrie Irving	Sky Hook Shot	Padded Sleeves	Right Handed	Blue Headband	Loud Horn
Jaylen Brown	Crossover Dribble	Gold Chain	Right Handed	Blue Headband	Squeaky Shoes
Ja Morant	No Look Pass	Gold Chain	Left Handed	Orange Headband	Bouncing Mascot
Shai Gilgeous Alexander	Crossover Dribble	Ankle Braces	Right Handed	Blue Headband	Squeaky Shoes
Devin Booker	Fadeaway Jumper	Padded Sleeves	Right Handed	Orange Headband	Squeaky Shoes
Paul George	Slam Dunk	Padded Sleeves	Left Handed	Green Headband	Loud Horn
Donovan Mitchell	No Look Pass	High Socks	Left Handed	Orange Headband	Bouncing Mascot
Nikola Jokic	Fadeaway Jumper	Ankle Braces	Right Handed	Orange Headband	Loud Horn
Jalen Brunson	Fadeaway Jumper	Padded Sleeves	Right Handed	Orange Headband	Bouncing Mascot
Tyrese Haliburton	Crossover Dribble	Ankle Braces	Right Handed	Blue Headband	Loud Horn
LeBron James	No Look Pass	Gold Chain	Right Handed	Orange Headband	Loud Horn
Trae Young	Crossover Dribble	Gold Chain	Left Handed	Blue Headband	Bouncing Mascot
Anthony Davis	Fadeaway Jumper	Ankle Braces	Left Handed	Orange Headband	Loud Horn
Kevin Durant	No Look Pass	Ankle Braces	Right Handed	Orange Headband	Loud Horn
Luka Doncic	Sky Hook Shot	High Socks	Right Handed	Orange Headband	Bouncing Mascot
Zion Williamson	Crossover Dribble	High Socks	Left Handed	Orange Headband	Bouncing Mascot
Steph Curry	Fadeaway Jumper	Padded Sleeves	Right Handed	Orange Headband	Loud Horn
Giannis Antetokounmpo	Fadeaway Jumper	Glow Sneakers	Left Handed	Orange Headband	Squeaky Shoes
Bam Adebayo	Sky Hook Shot	Glow Sneakers	Left Handed	Green Headband	Squeaky Shoes
DeAaron Fox	Slam Dunk	High Socks	Right Handed	Orange Headband	Loud Horn
Damian Lillard	Slam Dunk	Padded Sleeves	Right Handed	Blue Headband	Bouncing Mascot

CLUE 1

Fractions of a number

Coach Miller checked the team roster to calculate what fraction of the roster arrived early to practice.

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

30 8 25 26 20 40 40 31 20 23 39 7 25 14 23 7 30

12 25 31 3 8 20 22 8 14 7 5 19 14





12 25 31 3 8 20 22 8 14 7 5 19 14

$\frac{3}{4}$ of 40 = $\rightarrow$ **T**

$3/6$ of $52 = \boxed{} \rightarrow \boxed{\mathbf{V}}$

$2/8$ of 156 = $\rightarrow$ **D**

$$2/10 \text{ of } 95 = \boxed{} \rightarrow \boxed{\text{K}}$$

4/6 of 21 = → **S**

$$2/10 \text{ of } 125 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$4/8 \text{ of } 40 = \boxed{} \rightarrow \boxed{}$$

3/6 of 44 = → **G**

$$2/6 \text{ of } 9 = \boxed{} \rightarrow \boxed{\text{R}}$$

$\frac{1}{4}$ of 92 = $\rightarrow$ **N**

$$\frac{1}{4} \text{ of } 160 = \boxed{} \rightarrow \boxed{\text{L}}$$

4/8 of 16 = → **H**

$\frac{1}{5}$ of 155 = $\rightarrow$ **A**

$2/6$ of 15 = $\rightarrow$ **C**

3/6 of 14 = →

$6/10$ of $20 = \square \rightarrow \boxed{\text{W}}$

Scratch space:

CLUE 2
Multiplication facts (1-12)

To count the basketballs on the storage rack, Coach Miller multiplied the rows by the columns.

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

T																		T
81	32	18	25	70	30	30	36	70	45	70	2	36	60	70	14	32	81	

										T		
32	36	45	40	18	40	2	32	120	120	81	18	60

$9 \times 9 = \square \rightarrow$ T	$2 \times 7 = \square \rightarrow$ G	$9 \times 2 = \square \rightarrow$ E	$10 \times 7 = \square \rightarrow$ I
$10 \times 6 = \square \rightarrow$ R	$4 \times 8 = \square \rightarrow$ H	$2 \times 1 = \square \rightarrow$ S	$5 \times 5 = \square \rightarrow$ V
$5 \times 6 = \square \rightarrow$ L	$10 \times 4 = \square \rightarrow$ D	$10 \times 12 = \square \rightarrow$ O	
$6 \times 6 = \square \rightarrow$ A	$9 \times 5 = \square \rightarrow$ N		

Scratch space:

CLUE 3

Rounding

The digital scoreboard near the tunnel only shows fan attendance rounded to the nearest hundred.

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

T																	
3700	4300	900	1100	70	50	50	9000	70	170	90	9000	370					

			T				T										
700	70	370	3700	1700	9000	130	3700	900	700	7000	290	9000	50	500	200	700	

4300	500	1700	170

Round 3,681 to the nearest hundred

→

T

Round 168 to the nearest ten

→

N

Round 87 to the nearest ten

→

W

Round 53 to the nearest ten

→

L

Round 4,311 to the nearest hundred

→

H

Round 369 to the nearest ten

→

S

Round 213 to the nearest hundred

→

U

Round 286 to the nearest ten

→

Y

Round 851 to the nearest hundred

→

E

Round 74 to the nearest ten

→

I

Round 663 to the nearest hundred

→

D

Round 9,171 to the nearest thousand

→

A

Round 1,695 to the nearest hundred

→

R

Round 458 to the nearest hundred

→

O

Round 1,062 to the nearest hundred

→

V

Round 131 to the nearest ten

→

C

Round 7,227 to the nearest thousand

→

B

Scratch space:

CLUE 4 Addition

Coach Miller added up all the extra practice gear left near the bench area.

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

T																		
5296	3668	8746	6354	5206	6517	6517	5616	5206	5602	5305	8132	6981	2127	2127	8746	5305	5616	5602
6981	8132	5616	5602	3334	8746	3668	8746	5616	5305	3713	5616	5602	5305					

$3519 + 1777 = \square \rightarrow$ T	$3028 + 3326 = \square \rightarrow$ V	$2271 + 1063 = \square \rightarrow$ G
$3922 + 4824 = \square \rightarrow$ E	$2885 + 2420 = \square \rightarrow$ D	$2247 + 2959 = \square \rightarrow$ I
$2094 + 1619 = \square \rightarrow$ B	$2738 + 2864 = \square \rightarrow$ N	$652 + 1475 = \square \rightarrow$ P
$3363 + 3618 = \square \rightarrow$ O	$1982 + 3634 = \square \rightarrow$ A	$1787 + 1881 = \square \rightarrow$ H
$2579 + 5553 = \square \rightarrow$ R	$4105 + 2412 = \square \rightarrow$ L	

Scratch space:

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

The equipment manager checked the drink crate to find what fraction of the water bottles were completely full.

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:

$2/4 \text{ of } 8 = \boxed{}$

$1/10 \text{ of } 50 = \boxed{}$

$1/5 \text{ of } 10 = \boxed{}$

$2/8 \text{ of } 12 = \boxed{}$

$1/8 \text{ of } 72 = \boxed{}$

$4/8 \text{ of } 20 = \boxed{}$

$1/6 \text{ of } 72 = \boxed{}$

$2/3 \text{ of } 9 = \boxed{}$

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

$1/6 \text{ of } 42 = \boxed{}$

$1/2 \text{ of } 16 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain drained a fadeaway jumper, then laced up glow sneakers.
2. The villain faked a no look pass, then flashed a gold chain.
3. The villain faked a no look pass, then pulled up high socks.
4. The villain faked a no look pass, then strapped on ankle braces.
5. The villain drained a fadeaway jumper, then strapped on ankle braces.
6. The villain sank a sky hook shot, then adjusted padded sleeves.
7. The villain busted out a crossover dribble, then adjusted padded sleeves.
8. The villain threw down a slam dunk, then strapped on ankle braces.
9. The villain drained a fadeaway jumper, then flashed a gold chain.
10. The villain threw down a slam dunk, then flashed a gold chain.
11. The villain drained a fadeaway jumper, then adjusted padded sleeves.
12. The villain sank a sky hook shot, then laced up glow sneakers.

Answer Key

The Case of the Missing Championship Trophy

Culprit: Steph Curry

Fadeaway Jumper · Padded Sleeves · Right Handed · Orange Headband · Loud Horn

Trail: Start 21 → Clue 1 17 → Clue 2 11 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Fractions of a number): "THE VILLAIN DOES NOT WEAR HIGH SOCKS"

$\frac{3}{4}$ of 40 = 30 (T) · $\frac{3}{6}$ of 52 = 26 (V) · $\frac{2}{8}$ of 156 = 39 (D) · $\frac{2}{10}$ of 95 = 19 (K) · $\frac{4}{6}$ of 21 = 14 (S) · $\frac{2}{10}$ of 125 = 25 (E) · $\frac{4}{8}$ of 40 = 20 (I) · $\frac{3}{6}$ of 44 = 22 (G) · $\frac{2}{6}$ of 9 = 3 (R) · $\frac{1}{4}$ of 92 = 23 (N) · $\frac{1}{4}$ of 160 = 40 (L) · $\frac{4}{8}$ of 16 = 8 (H) · $\frac{1}{5}$ of 155 = 31 (A) · $\frac{2}{6}$ of 15 = 5 (C) · $\frac{3}{6}$ of 14 = 7 (O) · $\frac{6}{10}$ of 20 = 12 (W)

Clue 2 (Multiplication facts (1-12)): "THE VILLAIN IS A RIGHT HANDED SHOOTER"

$9 \times 9 = 81$ (T) · $2 \times 7 = 14$ (G) · $9 \times 2 = 18$ (E) · $10 \times 7 = 70$ (I) · $10 \times 6 = 60$ (R) · $4 \times 8 = 32$ (H) · $2 \times 1 = 2$ (S) · $5 \times 5 = 25$ (V) · $5 \times 6 = 30$ (L) · $10 \times 4 = 40$ (D) · $10 \times 12 = 120$ (O) · $6 \times 6 = 36$ (A) · $9 \times 5 = 45$ (N)

Clue 3 (Rounding): "THE VILLAIN WAS DISTRACTED BY A LOUD HORN"

Round 3,681 to the nearest hundred = 3700 (T) · Round 168 to the nearest ten = 170 (N) · Round 87 to the nearest ten = 90 (W) · Round 53 to the nearest ten = 50 (L) · Round 4,311 to the nearest hundred = 4300 (H) · Round 369 to the nearest ten = 370 (S) · Round 213 to the nearest hundred = 200 (U) · Round 286 to the nearest ten = 290 (Y) · Round 851 to the nearest hundred = 900 (E) · Round 74 to the nearest ten = 70 (I) · Round 663 to the nearest hundred = 700 (D) · Round 9,171 to the nearest thousand = 9000 (A) · Round 1,695 to the nearest hundred = 1700 (R) · Round 458 to the nearest hundred = 500 (O) · Round 1,062 to the nearest hundred = 1100 (V) · Round 131 to the nearest ten = 130 (C) · Round 7,227 to the nearest thousand = 7000 (B)

Clue 4 (Addition): "THE VILLAIN DROPPED AN ORANGE HEADBAND"

$3519 + 1777 = 5296$ (T) · $3028 + 3326 = 6354$ (V) · $2271 + 1063 = 3334$ (G) · $3922 + 4824 = 8746$ (E) · $2885 + 2420 = 5305$ (D) · $2247 + 2959 = 5206$ (I) · $2094 + 1619 = 3713$ (B) · $2738 + 2864 = 5602$ (N) · $652 + 1475 = 2127$ (P) · $3363 + 3618 = 6981$ (O) · $1982 + 3634 = 5616$ (A) · $1787 + 1881 = 3668$ (H) · $2579 + 5553 = 8132$ (R) · $4105 + 2412 = 6517$ (L)

Clue 5 (Fractions of a number): surviving statement is box 11 → Steph Curry

$\frac{2}{4}$ of 8 = 4 · $\frac{1}{10}$ of 50 = 5 · $\frac{1}{5}$ of 10 = 2 · $\frac{2}{8}$ of 12 = 3 · $\frac{1}{8}$ of 72 = 9 · $\frac{4}{8}$ of 20 = 10 · $\frac{1}{6}$ of 72 = 12 · $\frac{2}{3}$ of 9 = 6 · $\frac{2}{10}$ of 5 = 1 · $\frac{1}{6}$ of 42 = 7 · $\frac{1}{2}$ of 16 = 8