The Case of the Missing Championship Trophy

Grade 3 math · Multiplication, Skip counting, Word problems, Bar models, Missing addends · Reading level grades 3-4

Detective: _____ **Date:** _____

Right before the final buzzer of the big game, someone swiped the Championship Trophy from the trophy display! The Arena Detective needs your math skills to narrow down the suspects.

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 Hoop Bandit is _____

Possible suspects

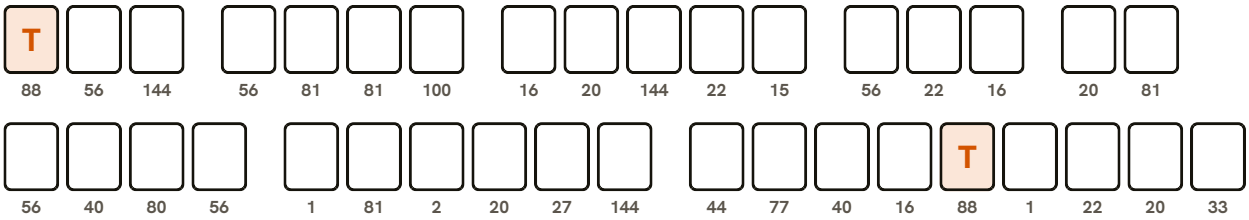
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	SIGNATURE MOVE	LUCKY GEAR	SHOOTING HAND	HAIRSTYLE	DISTRACTION
Elena Delle Donne	No Look Passes	High Bounce Wristband	Left Handed Dribbler	Buzz Cut	Bright Arena Lights
Sue Bird	Lightning Fast Break	Turbo Whistle	Right Handed Dribbler	Buzz Cut	Squeaky Floorboards
Angel Reese	Sky High Dunk	Fast Break Sneakers	Right Handed Dribbler	Buzz Cut	Squeaky Floorboards
Tyrese Haliburton	Ankle Breaker Dribble	High Bounce Wristband	Right Handed Dribbler	Buzz Cut	Squeaky Floorboards
Aja Wilson	No Look Passes	Glowing Headband	Right Handed Dribbler	Buzz Cut	Squeaky Floorboards
Damian Lillard	No Look Passes	Mega Grip Gloves	Left Handed Dribbler	Braided Hair	Loud Buzzer Noise
Giannis Antetokounmpo	Half Court Hook Shots	Fast Break Sneakers	Right Handed Dribbler	Buzz Cut	Squeaky Floorboards
Candace Parker	Lightning Fast Break	High Bounce Wristband	Left Handed Dribbler	Braided Hair	Loud Buzzer Noise
Luka Doncic	No Look Passes	Turbo Whistle	Right Handed Dribbler	Braided Hair	Bright Arena Lights
Jalen Brunson	Ankle Breaker Dribble	Mega Grip Gloves	Left Handed Dribbler	High Top Fade	Bright Arena Lights
Steph Curry	Sky High Dunk	Glowing Headband	Right Handed Dribbler	High Top Fade	Bright Arena Lights
Ja Morant	Ankle Breaker Dribble	Glowing Headband	Left Handed Dribbler	Braided Hair	Bright Arena Lights
Jayson Tatum	No Look Passes	Mega Grip Gloves	Right Handed Dribbler	High Top Fade	Bright Arena Lights
Breanna Stewart	Ankle Breaker Dribble	Glowing Headband	Right Handed Dribbler	Braided Hair	Bright Arena Lights
Paolo Banchero	Sky High Dunk	Fast Break Sneakers	Left Handed Dribbler	Buzz Cut	Squeaky Floorboards
Maya Moore	Sky High Dunk	High Bounce Wristband	Left Handed Dribbler	Braided Hair	Bright Arena Lights
Devin Booker	Half Court Hook Shots	Turbo Whistle	Right Handed Dribbler	High Top Fade	Bright Arena Lights
Kelsey Plum	Ankle Breaker Dribble	Glowing Headband	Right Handed Dribbler	Braided Hair	Loud Buzzer Noise
LeBron James	Lightning Fast Break	Mega Grip Gloves	Right Handed Dribbler	Buzz Cut	Bright Arena Lights
Sabrina Ionescu	No Look Passes	Glowing Headband	Right Handed Dribbler	High Top Fade	Loud Buzzer Noise
Anthony Edwards	Sky High Dunk	Glowing Headband	Right Handed Dribbler	Braided Hair	Squeaky Floorboards

CLUE 1 Multiplication facts (1-12)

> The coach arranged basketball racks into equal rows to check for clues. Solve the multiplication to uncover the first clue.

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



8 × 11 = ☐ → T

7 × 11 = ☐ → R

12 × 12 = ☐ → E

5 × 8 = ☐ → I

2 × 10 = ☐ → N

7 × 8 = ☐ → H

11 × 3 = ☐ → D

1 × 1 = ☐ → B

10 × 10 = ☐ → P

9 × 3 = ☐ → C

3 × 5 = ☐ → K

11 × 4 = ☐ → W

8 × 10 = ☐ → G

11 × 2 = ☐ → A

9 × 9 = ☐ → O

4 × 4 = ☐ → S

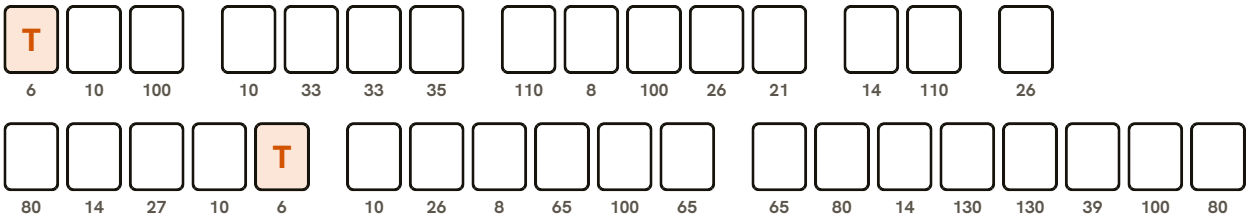
2 × 1 = ☐ → U

Scratch space:

CLUE 2 Skip counting

> The referee counted warm up laps around the hardwood floor by twos and fives. Skip count along to reveal the next clue.

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



Skip-count by 2s. Fill the blank: 2, 4, ___, 8, 10 ☐ → **T**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, ___, 110, 120 ☐ → **E**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, ___, 70, 75 ☐ → **D**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, ___, 120, 130 ☐ → **S**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, ___, 90, 100 ☐ → **R**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, ___, 30, 33 ☐ → **G**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, ___, 12, 14 ☐ → **H**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, ___, 16, 18 ☐ → **I**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, ___, 24, 27 ☐ → **K**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, ___, 42, 45 ☐ → **L**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, ___, 140, 150 ☐ → **B**

Skip-count by 2s. Fill the blank: 2, 4, 6, ___, 10, 12 ☐ → **N**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, ___, 36, 39 ☐ → **O**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, ___, 28, 30 ☐ → **A**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, ___, 40, 45 ☐ → **P**

Scratch space:

CLUE 3 Word problems

> The stat tracker tallied up points and rebounds to solve a court mystery. Work through the story problem to get this clue.

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

Someone scared the villain off with

S							F	L	O	O	R	B	O		R	D	S
45	68	47	78	70	73	61								70			45

.

The team captain lined up 5 rows of 9 towel sets. How many towel sets in all?

Answer: ☐ → **S**

The team captain lined up 7 rows of 10 water bottles. How many water bottles in all?

Answer: ☐ → **A**

The team captain found 16 water bottles yesterday and 45 more today. How many water bottles in all?

Answer: ☐ → **Y**

There were 88 basketballs. 20 were used up. How many basketballs are left?

Answer: ☐ → **Q**

The team captain found 17 foam fingers yesterday and 30 more today. How many foam fingers in all?

Answer: ☐ → **U**

There were 103 basketballs. 25 were used up. How many basketballs are left?

Answer: ☐ → **E**

There were 77 foam fingers. 4 were used up. How many foam fingers are left?

Answer: ☐ → **K**

Scratch space:

CLUE 4 Bar model word problems

> The equipment manager used bar models to compare the lengths of jump ropes. Study the visual bars to unlock the clue.

Draw a bar model to solve each word problem, then write its letter in the boxes to fill in the missing word.

A strand of

B						
15	25	24	24	50	25	57

hair turned up at the scene.

The team captain shares 180 sweatbands equally among 12 teams. How many sweatbands does each team get?

draw a bar model

Answer: ☐ → B

The team captain shares 50 sweatbands equally among 2 teams. How many sweatbands does each team get?

draw a bar model

Answer: ☐ → U

There were 61 sweatbands in all. 4 sweatbands were used. How many sweatbands are left?

draw a bar model

Answer: ☐ → T

The red team has 77 sweatbands and the blue team has 27 sweatbands. How many more sweatbands does the red team have?

draw a bar model

Answer: ☐ → C

The team captain has 4 times as many foam fingers as a teammate. The teammate has 6 foam fingers. How many foam fingers does the team captain have?

draw a bar model

Answer: ☐ → Z

CLUE 5 Missing addends - the last clue

The scoreboard lost a few numbers during halftime. Find the missing points to complete 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:

9 + ___ = 18 ☐	2 + ___ = 8 ☐	5 + ___ = 7 ☐	10 + ___ = 21 ☐
1 + ___ = 13 ☐	8 + ___ = 12 ☐	6 + ___ = 11 ☐	7 + ___ = 14 ☐
4 + ___ = 12 ☐	8 + ___ = 18 ☐	7 + ___ = 8 ☐	

Step 2 - cross out the sentence with each answer:

1. The villain hit a half court shot over the gate, then snapped a high bounce wristband.
2. The villain leaped clear over the scoreboard, then laced up fast break sneakers.
3. The villain hit a half court shot over the gate, then laced up fast break sneakers.
4. The villain faked out the gym monitor, then snapped a high bounce wristband.
5. The villain dribbled past the security guard, then snapped a high bounce wristband.
6. The villain faked out the gym monitor, then adjusted a glowing headband.
7. The villain dashed down the court unseen, then adjusted a glowing headband.
8. The villain faked out the gym monitor, then laced up fast break sneakers.
9. The villain dashed down the court unseen, then blew a turbo whistle.
10. The villain leaped clear over the scoreboard, then put on mega grip gloves.
11. The villain faked out the gym monitor, then blew a turbo whistle.
12. The villain dribbled past the security guard, then laced up fast break sneakers.

TEACHER / PARENT

Answer Key

The Case of the Missing Championship Trophy

Culprit: Giannis Antetokounmpo

Half Court Hook Shots · Fast Break Sneakers · Right Handed Dribbler · Buzz Cut · Squeaky Floorboards

Trail: Start 21 → Clue 1 17 → Clue 2 13 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE HOOP SNEAK HAS NO HIGH BOUNCE WRISTBAND"

8 × 11 = 88 (T) · 7 × 11 = 77 (R) · 12 × 12 = 144 (E) · 5 × 8 = 40 (I) · 2 × 10 = 20 (N) · 7 × 8 = 56 (H) · 11 × 3 = 33 (D) · 1 × 1 = 1 (B) · 10 × 10 = 100 (P) · 9 × 3 = 27 (C) · 3 × 5 = 15 (K) · 11 × 4 = 44 (W) · 8 × 10 = 80 (G) · 11 × 2 = 22 (A) · 9 × 9 = 81 (O) · 4 × 4 = 16 (S) · 2 × 1 = 2 (U)

Clue 2 (Skip counting): "THE HOOP SNEAK IS A RIGHT HANDED DRIBBLER"

Skip-count by 2s. Fill the blank: 2, 4, ___, 8, 10 = 6 (T) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, ___, 110, 120 = 100 (E) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, ___, 70, 75 = 65 (D) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, ___, 120, 130 = 110 (S) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, ___, 90, 100 = 80 (R) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, ___, 30, 33 = 27 (G) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, ___, 12, 14 = 10 (H) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, ___, 16, 18 = 14 (I) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, ___, 24, 27 = 21 (K) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, ___, 42, 45 = 39 (L) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, ___, 140, 150 = 130 (B) · Skip-count by 2s. Fill the blank: 2, 4, 6, ___, 10, 12 = 8 (N) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, ___, 36, 39 = 33 (O) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, ___, 28, 30 = 26 (A) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, ___, 40, 45 = 35 (P)

Clue 3 (Word problems): "SQUEAKY FLOORBOARDS"

The team captain lined up 5 rows of 9 towel sets. How many towel sets in all? = 45 (S) · The team captain lined up 7 rows of 10 water bottles. How many water bottles in all? = 70 (A) · The team captain found 16 water bottles yesterday and 45 more today. How many water bottles in all? = 61 (Y) · There were 88 basketballs. 20 were used up. How many basketballs are left? = 68 (Q) · The team captain found 17 foam fingers yesterday and 30 more today. How many foam fingers in all? = 47 (U) · There were 103 basketballs. 25 were used up. How many basketballs are left? = 78 (E) · There were 77 foam fingers. 4 were used up. How many foam fingers are left? = 73 (K)

Clue 4 (Bar model word problems): "BUZZ CUT"

The team captain shares 180 sweatbands equally among 12 teams. How many sweatbands does each team get? = 15 (B) · The team captain shares 50 sweatbands equally among 2 teams. How many sweatbands does each team get? = 25 (U) · There were 61 sweatbands in all. 4 sweatbands were used. How many sweatbands are left? = 57 (T) · The red team has 77 sweatbands and the blue team has 27 sweatbands. How many more sweatbands does the red team have? = 50 (C) · The team captain has 4 times as many foam fingers as a teammate. The teammate has 6 foam fingers. How many foam fingers does the team captain have? = 24 (Z)

Clue 5 (Missing addends): surviving statement is box 3 → Giannis Antetokounmpo

9 + ___ = 18 = 9 · 2 + ___ = 8 = 6 · 5 + ___ = 7 = 2 · 10 + ___ = 21 = 11 · 1 + ___ = 13 = 12 · 8 + ___ = 12 = 4 · 6 + ___ = 11 = 5 · 7 + ___ = 14 = 7 · 4 + ___ = 12 = 8 · 8 + ___ = 18 = 10 · 7 + ___ = 8 = 1