



The Case of the Missing Championship Ring

Grade 3 math · Place value, Skip counting, Bar models, Fractions of a number, Missing addends · Reading level grades 3-4

Detective: _____ Date: _____

Right before kick-off at the Gridiron Bowl, the legendary championship ring vanished from the trophy case! Detective, use the playbook evidence to catch the sneaky stadium 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 stadium culprit is _____

Possible suspects

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

NAME	FAVORITE PLAY	LOCKER GEAR	GLOVE HAND	HELMET COLOR	DISTRACTION
Fred Warner	Hail Mary Pass	Playbook Tablet	Right Handed Glove	Silver Helmet	Marching Band Music
Aaron Donald	Blitz Sack	Towel Belt	Left Handed Glove	Bright Red Helmet	Marching Band Music
Tyreek Hill	Field Goal Kick	Cleat Cleaner	Left Handed Glove	Bright Red Helmet	Loud Stadium Cheers
Lamar Jackson	Hail Mary Pass	Cleat Cleaner	Left Handed Glove	Bright Red Helmet	Loud Stadium Cheers
Saquon Barkley	Field Goal Kick	Cleat Cleaner	Left Handed Glove	Bright Red Helmet	Marching Band Music
Travis Kelce	Field Goal Kick	Towel Belt	Left Handed Glove	Silver Helmet	Loud Stadium Cheers
Micah Parsons	Hail Mary Pass	Gold Whistle	Right Handed Glove	Silver Helmet	Loud Stadium Cheers
Patrick Mahomes	Field Goal Kick	Gold Whistle	Left Handed Glove	Silver Helmet	Bright Stadium Lights
JaMarr Chase	Pick Six Intercept	Playbook Tablet	Left Handed Glove	Silver Helmet	Loud Stadium Cheers
Christian McCaffrey	Hail Mary Pass	Gold Whistle	Right Handed Glove	Bright Red Helmet	Bright Stadium Lights
Justin Tucker	Hail Mary Pass	Gold Whistle	Left Handed Glove	Matte Black Helmet	Bright Stadium Lights
CeeDee Lamb	Hail Mary Pass	Playbook Tablet	Left Handed Glove	Matte Black Helmet	Loud Stadium Cheers
Joe Burrow	Pick Six Intercept	Cleat Cleaner	Left Handed Glove	Bright Red Helmet	Loud Stadium Cheers
Davante Adams	Blitz Sack	Towel Belt	Right Handed Glove	Silver Helmet	Marching Band Music
Nick Bosa	Field Goal Kick	Energy Gel	Left Handed Glove	Bright Red Helmet	Bright Stadium Lights
Myles Garrett	Pick Six Intercept	Playbook Tablet	Left Handed Glove	Silver Helmet	Bright Stadium Lights
TJ Watt	QB Sneak	Cleat Cleaner	Right Handed Glove	Silver Helmet	Bright Stadium Lights
Justin Jefferson	Hail Mary Pass	Gold Whistle	Left Handed Glove	Bright Red Helmet	Loud Stadium Cheers
Puka Nacua	Field Goal Kick	Playbook Tablet	Left Handed Glove	Bright Red Helmet	Loud Stadium Cheers
Maxx Crosby	QB Sneak	Gold Whistle	Right Handed Glove	Bright Red Helmet	Bright Stadium Lights
AJ Brown	Pick Six Intercept	Towel Belt	Right Handed Glove	Bright Red Helmet	Loud Stadium Cheers

CLUE 1

The digital scoreboard blinked digits as the security log recorded stadium entries. Solve the place value puzzle to reveal the first playbook clue.

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

8000 400 500 90 5000 90 70 500 10 8000 600 40 500 90 2000 40 8000 400 7000 900 500 7000 70 20 7000 100 300 40 40 200 8000 7000 300 20 500 8000

What is the value of the 8 in 8,605? → **T**

What is the value of the 6 in 690? → **D**

What is the value of the 2 in 1,233? → **K**

What is the value of the 9 in 8,906? → **V**

What is the value of the 2 in 2,008? → **N**

What is the value of the 9 in 1,094? → **S**

What is the value of the 4 in 487? → **H**

What is the value of the 2 in 825? → **L**

What is the value of the 1 in 6,416? → **C**

What is the value of the 7 in 979? → **P**

What is the value of the 4 in 6,042? →

What is the value of the 5 in 25,134? → **U**

What is the value of the 5 in 580? → **E**

What is the value of the 1 in 189? → **Y**

What is the value of the 3 in 5,396? → **B**

What is the value of the 7 in 7,196? → **A**

Scratch space:

CLUE 2 Skip counting

To count the turf markers down the sideline, the refs skip counted by groups of yards. Follow the pattern to unlock the next clue.

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

A									A		A				
65	18	30	100	50	22	80	80	80	65	18	65	39	22	24	100
	A														
14	65	50	28	22	28	70	39	16	40	22	16	50	100	14	22
24	30	22	39	28											

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

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, __, 60, 70 → **N**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, __, 30, 32 → **D**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, __, 26, 28 → **F**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, __, 35, 40 → **I**

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 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, __, 24, 26 → **E**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, __, 80, 90 → **G**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, __, 18, 20 → **O**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, __, 45, 50 → **V**

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

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

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, __, 21, 24 → **W**

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

Scratch space:

CLUE 3

Bar model word problems

The team trainer mapped out water bottles using a bar model to compare supplies. Read the diagram to get the next lead.

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

Someone scared the villain off with

L

I

M
C
H
E
E
R

.

10 17 14 15 28 56 43 15 14 28

One group collected 6 football helmets and another group collected 4 football helmets. How many football helmets in all?

draw a bar model

Answer: → L

Coach Miller has 5 times as many foam fingers as a teammate. The teammate has 3 foam fingers. How many foam fingers does Coach Miller have?

draw a bar model

Answer: → D

Coach Miller shares 172 football helmets equally among 4 teams. How many football helmets does each team get?

draw a bar model

Answer: → A

Coach Miller has 7 times as many water jugs as a teammate. The teammate has 2 water jugs. How many water jugs does Coach Miller have?

draw a bar model

Answer: → U

Coach Miller has 8 times as many championship rings as a teammate. The teammate has 7 championship rings. How many championship rings does Coach Miller have?

draw a bar model

Answer: → T

The red team has 49 water jugs and the blue team has 21 water jugs. How many more water jugs does the red team have?

draw a bar model

Answer: → S

Coach Miller shares 136 championship rings equally among 8 teams. How many championship rings does each team get?

draw a bar model

Answer: →

CLUE 4 Fractions of a number

The coach split the roster into fraction groups during team drills. Calculate the fractions to find out where the culprit hid.

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

The diagram shows two rows of boxes. The top row has 18 boxes with the following numbers below them: 34, 5, 33, 4, 25, 14, 6, 33, 32, 2, 14, 32, 29, 12, 32, 6, 3, 34, 15. The 18th box (containing 34) is highlighted in orange and labeled 'A'. The bottom row has 16 boxes with the following numbers below them: 15, 32, 32, 8, 8, 32, 34, 33, 6, 14, 32, 6, 33, 13, 40, 14, 16. The 7th box (containing 34) is highlighted in orange and labeled 'A'.

4/8 of 68 = → **A**

$\frac{1}{3}$ of 99 = $\rightarrow$ **R**

7/8 of 16 = → **H**

$$1/2 \text{ of } 26 = \boxed{} \rightarrow \boxed{0}$$

$1/10$ of 60 = $\rightarrow$ **T**

$\frac{1}{6}$ of 150 = $\rightarrow$ **G**

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

$$\frac{3}{4} \text{ of } 20 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$3/6 \text{ of } 58 = \boxed{} \rightarrow \boxed{\text{L}}$$

$$\frac{1}{3} \text{ of } 36 = \boxed{} \rightarrow \boxed{\text{M}}$$

$$\frac{1}{6} \text{ of } 18 = \boxed{} \rightarrow \boxed{\text{W}}$$

$\frac{1}{6}$ of 30 = $\rightarrow$ **B**

4/10 of 80 = → **E**

$2/3$ of 3 = $\rightarrow$ **D**

$$\frac{1}{2} \text{ of } 80 = \boxed{} \rightarrow \boxed{\text{P}}$$

$2/3$ of 24 = $\rightarrow$ **Y**

4/6 of 12 = → **N**

Scratch space:

CLUE 5**Missing addends - the last clue**

The stat keeper noticed points missing from the halftime tally sheet. Find the missing number to complete the final 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:

$4 + \underline{\quad} = 7$

$8 + \underline{\quad} = 17$

$8 + \underline{\quad} = 14$

$9 + \underline{\quad} = 21$

$5 + \underline{\quad} = 13$

$5 + \underline{\quad} = 10$

$5 + \underline{\quad} = 7$

$3 + \underline{\quad} = 14$

$9 + \underline{\quad} = 16$

$3 + \underline{\quad} = 4$

$8 + \underline{\quad} = 18$

Step 2 - cross out the sentence with each answer:

1. The villain charged in for a blitz sack, then checked a playbook tablet.
2. The villain charged in for a blitz sack, then grabbed a towel belt.
3. The villain kicked a field goal, then used a cleat cleaner.
4. The villain ran back a pick six intercept, then used a cleat cleaner.
5. The villain charged in for a blitz sack, then used a cleat cleaner.
6. The villain launched a hail mary pass, then used a cleat cleaner.
7. The villain ran back a pick six intercept, then blew a gold whistle.
8. The villain kicked a field goal, then checked a playbook tablet.
9. The villain launched a hail mary pass, then blew a gold whistle.
10. The villain launched a hail mary pass, then squeezed an energy gel.
11. The villain charged in for a blitz sack, then squeezed an energy gel.
12. The villain launched a hail mary pass, then checked a playbook tablet.

Answer Key

The Case of the Missing Championship Ring

Culprit: Joe Burrow

Pick Six Intercept · Cleat Cleaner · Left Handed Glove · Bright Red Helmet · Loud Stadium Cheers

Trail: Start 21 → Clue 1 16 → Clue 2 10 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE SUSPECT DOES NOT HAVE A PLAYBOOK TABLET"

What is the value of the 8 in 8,605? = 8000 (T) · What is the value of the 6 in 690? = 600 (D) · What is the value of the 2 in 1,233? = 200 (K) · What is the value of the 9 in 8,906? = 900 (V) · What is the value of the 2 in 2,008? = 2000 (N) · What is the value of the 9 in 1,094? = 90 (S) · What is the value of the 4 in 487? = 400 (H) · What is the value of the 2 in 825? = 20 (L) · What is the value of the 1 in 6,416? = 10 (C) · What is the value of the 7 in 979? = 70 (P) · What is the value of the 4 in 6,042? = 40 (O) · What is the value of the 5 in 25,134? = 5000 (U) · What is the value of the 5 in 580? = 500 (E) · What is the value of the 1 in 189? = 100 (Y) · What is the value of the 3 in 5,396? = 300 (B) · What is the value of the 7 in 7,196? = 7000 (A)

Clue 2 (Skip counting): "A WITNESS SAW A LEFT HANDED GLOVE ON THE FIELD"

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 = 65 (A) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, __, 60, 70 = 50 (N) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, __, 30, 32 = 28 (D) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, __, 26, 28 = 24 (F) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, __, 35, 40 = 30 (I) · 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 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, __, 24, 26 = 22 (E) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, __, 80, 90 = 70 (G) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, __, 18, 20 = 16 (O) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, __, 45, 50 = 40 (V) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, __, 90, 100 = 80 (S) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, __, 110, 120 = 100 (T) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, __, 21, 24 = 18 (W) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, __, 16, 18 = 14 (H)

Clue 3 (Bar model word problems): "LOUD STADIUM CHEERS"

One group collected 6 football helmets and another group collected 4 football helmets. How many football helmets in all? = 10 (L) · Coach Miller has 5 times as many foam fingers as a teammate. The teammate has 3 foam fingers. How many foam fingers does Coach Miller have? = 15 (D) · Coach Miller shares 172 football helmets equally among 4 teams. How many football helmets does each team get? = 43 (A) · Coach Miller has 7 times as many water jugs as a teammate. The teammate has 2 water jugs. How many water jugs does Coach Miller have? = 14 (U) · Coach Miller has 8 times as many championship rings as a teammate. The teammate has 7 championship rings. How many championship rings does Coach Miller have? = 56 (T) · The red team has 49 water jugs and the blue team has 21 water jugs. How many more water jugs does the red team have? = 28 (S) · Coach Miller shares 136 championship rings equally among 8 teams. How many championship rings does each team get? = 17 (O)

Clue 4 (Fractions of a number): "A BRIGHT RED HELMET WAS SEEN NEAR THE TROPHY"

$\frac{4}{8}$ of 68 = 34 (A) · $\frac{1}{3}$ of 99 = 33 (R) · $\frac{7}{8}$ of 16 = 14 (H) · $\frac{1}{2}$ of 26 = 13 (O) · $\frac{1}{10}$ of 60 = 6 (T) · $\frac{1}{6}$ of 150 = 25 (G) · $\frac{4}{8}$ of 8 = 4 (I) · $\frac{3}{4}$ of 20 = 15 (S) · $\frac{3}{6}$ of 58 = 29 (L) · $\frac{1}{3}$ of 36 = 12 (M) · $\frac{1}{6}$ of 18 = 3 (W) · $\frac{1}{6}$ of 30 = 5 (B) · $\frac{4}{10}$ of 80 = 32 (E) · $\frac{2}{3}$ of 3 = 2 (D) · $\frac{1}{2}$ of 80 = 40 (P) · $\frac{2}{3}$ of 24 = 16 (Y) · $\frac{4}{6}$ of 12 = 8 (N)

Clue 5 (Missing addends): surviving statement is box 4 → Joe Burrow

$4 + \underline{\quad} = 7 = 3$ · $8 + \underline{\quad} = 17 = 9$ · $8 + \underline{\quad} = 14 = 6$ · $9 + \underline{\quad} = 21 = 12$ · $5 + \underline{\quad} = 13 = 8$ · $5 + \underline{\quad} = 10 = 5$ · $5 + \underline{\quad} = 7 = 2$ · $3 + \underline{\quad} = 14 = 11$ · $9 + \underline{\quad} = 16 = 7$ · $3 + \underline{\quad} = 4 = 1$ · $8 + \underline{\quad} = 18 = 10$