



The Golden Pigskin Heist

Grade 10 math · Pythagorean theorem, Bar models, Word problems, Square roots, Missing addends · Reading level grades 7-9

Detective: _____ **Date:** _____

The Golden Championship Pigskin has vanished from the fifty-yard line right before kickoff! A rogue player has taken the legendary football to gain an unfair edge in the game. It is up to you to crack the case, solve the playbook puzzles, and find the thief before the final whistle blows!

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 Redzone Rogue is _____

Possible suspects

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

NAME	SPECIAL MOVE	SIGNATURE GEAR	THROWING HAND	HAIR STYLE	FUMBLE TRIGGER
The Undertaker	Spear Tackle	Steel Chair Shield	Right-handed passer	Shaved bald head	Slippery turf spray
Saquon Barkley	Spear Tackle	Golden Helmet	Left-handed passer	Wild neon hair	Bright stadium lights
Bianca Belair	Chokeslam Catch	Steel Chair Shield	Left-handed passer	Wild neon hair	Bright stadium lights
Deebo Samuel	Chokeslam Catch	Spiked Cleats	Left-handed passer	Shaved bald head	Slippery turf spray
Lamar Jackson	F5 Interception	Championship Belt	Right-handed passer	Wild neon hair	Bright stadium lights
Rey Mysterio	Tombstone Sack	Championship Belt	Left-handed passer	Wild neon hair	Bright stadium lights
The Rock	Stone Cold Stiff-Arm	Elbow Pads	Right-handed passer	Wild neon hair	Bright stadium lights
George Kittle	Chokeslam Catch	Golden Helmet	Right-handed passer	Shaved bald head	Bright stadium lights
Joe Burrow	Tombstone Sack	Championship Belt	Right-handed passer	Slicked back hair	Slippery turf spray
John Cena	Stone Cold Stiff-Arm	Golden Helmet	Right-handed passer	Shaved bald head	Loud referee whistles
Roman Reigns	Spear Tackle	Spiked Cleats	Left-handed passer	Slicked back hair	Bright stadium lights
Josh Allen	Stone Cold Stiff-Arm	Championship Belt	Right-handed passer	Shaved bald head	Bright stadium lights
Derrick Henry	Stone Cold Stiff-Arm	Golden Helmet	Left-handed passer	Slicked back hair	Loud referee whistles
Randy Orton	Stone Cold Stiff-Arm	Steel Chair Shield	Left-handed passer	Wild neon hair	Loud referee whistles
Travis Kelce	Tombstone Sack	Spiked Cleats	Right-handed passer	Wild neon hair	Bright stadium lights
Seth Rollins	Chokeslam Catch	Steel Chair Shield	Left-handed passer	Slicked back hair	Bright stadium lights
Charlotte Flair	Spear Tackle	Championship Belt	Left-handed passer	Wild neon hair	Bright stadium lights
Stone Cold	F5 Interception	Spiked Cleats	Right-handed passer	Slicked back hair	Slippery turf spray
Patrick Mahomes	Chokeslam Catch	Championship Belt	Left-handed passer	Wild neon hair	Bright stadium lights
Rhea Ripley	F5 Interception	Golden Helmet	Right-handed passer	Slicked back hair	Bright stadium lights
Cody Rhodes	F5 Interception	Championship Belt	Right-handed passer	Slicked back hair	Slippery turf spray

CLUE 1 Pythagorean theorem

We need to audit the locker room to see who cleared out their gear bag early. Solve these training supply word problems to uncover the rogue's first signature item.

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

87 15 65 68 75 74 17 65 37 75 65 116 13 75 87 30 65 25 68

87 15 65 74 75 41 37 65 13 15 65 41 29 65 87

legs 60 and 63, hypotenuse = → T	legs 20 and 21, hypotenuse = → M
legs 25 and 60, hypotenuse = → E	legs 18 and 24, hypotenuse = → W
legs 21 and 72, hypotenuse = → O	legs 5 and 12, hypotenuse = → N
legs 12 and 35, hypotenuse = → D	legs 9 and 40, hypotenuse = → L
legs 32 and 60, hypotenuse = → R	legs 8 and 15, hypotenuse = → U
legs 24 and 70, hypotenuse = → G	legs 9 and 12, hypotenuse = → H
legs 80 and 84, hypotenuse = → S	legs 15 and 20, hypotenuse = → A

Scratch space:

CLUE 2

Bar model word problems

The coaches are comparing play-calling percentages using bar models to analyze the roster. Figure out the ratio of the passes to narrow down the target's dominant throwing hand.

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

A witness saw the villain was

L

D

D
P

S
S

R

144 131 83 137 54 125 129 131 125 131

There were 157 cleats in all. 13 cleats were used. How many cleats are left?

draw a bar model

Answer: → L

The rookie player used $\frac{2}{6}$ of the jersey straps on the first day. The other 36 jersey straps were used the next day. How many jersey straps were there in all?

draw a bar model

Answer: → H

The red team has 169 mouthguards and the blue team has 32 mouthguards. How many more mouthguards does the red team have?

draw a bar model

Answer: → T

One group collected 60 mouthguards and another group collected 23 mouthguards. How many mouthguards in all?

draw a bar model

Answer: → F

The red team has 151 mouthguards and the blue team has 20 mouthguards. How many more mouthguards does the red team have?

draw a bar model

Answer: → E

The rookie player used $\frac{2}{5}$ of the mouthguards on the first day. The other 75 mouthguards were used the next day. How many mouthguards were there in all?

draw a bar model

Answer: → A

The rookie player used $\frac{1}{3}$ of the footballs on the first day. The other 86 footballs were used the next day. How many footballs were there in all?

draw a bar model

Answer: → **N**

CLUE 3

Word problems

The rogue took a sharp diagonal path across the endzone turf. Calculate the diagonal distance using the Pythagorean theorem to pinpoint where they dropped a crucial clue.

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

Someone scared the villain off with

B								A	D		U	M	L					
94	80	49	7	65	106	76	106		49				49	7	65	106	76	

The rookie player found 32 footballs yesterday and 62 more today. How many footballs in all?

Answer: → **B**

There were 80 mouthguards. 31 were used up. How many mouthguards are left?

Answer: → **I**

The rookie player found 41 water bottles yesterday and 35 more today. How many water bottles in all?

Answer: → **S**

The rookie player found 5 water bottles yesterday and 101 more today. How many water bottles in all?

Answer: → **T**

There were 23 cleats. 16 were used up. How many cleats are left?

Answer: → **G**

There were 90 water bottles. 25 were used up. How many water bottles are left?

Answer: → **H**

There were 115 water bottles. 35 were used up. How many water bottles are left?

Answer: → **R**

Scratch space:

CLUE 4 Square roots

Stadium security has divided the field into a perfectly square grid. Use square roots to identify the exact sector coordinates where a stray lock of hair was recovered.

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

W							W											
4	12	22	3	6	20	9	4	14	21	9	20	12	3	20	19	18	14	24
5	14	12	8	12	11	3	20	13	19	12	13	6	24	22				

$\sqrt{16} = \square \rightarrow \boxed{W}$

$\sqrt{324} = \square \rightarrow \boxed{A}$

$\sqrt{576} = \square \rightarrow \boxed{R}$

$\sqrt{36} = \square \rightarrow \boxed{U}$

$\sqrt{64} = \square \rightarrow \boxed{C}$

$\sqrt{9} = \square \rightarrow \boxed{O}$

$\sqrt{25} = \square \rightarrow \boxed{P}$

$\sqrt{169} = \square \rightarrow \boxed{T}$

$\sqrt{400} = \square \rightarrow \boxed{N}$

$\sqrt{484} = \square \rightarrow \boxed{F}$

$\sqrt{121} = \square \rightarrow \boxed{S}$

$\sqrt{196} = \square \rightarrow \boxed{I}$

$\sqrt{81} = \square \rightarrow \boxed{D}$

$\sqrt{441} = \square \rightarrow \boxed{L}$

$\sqrt{361} = \square \rightarrow \boxed{H}$

$\sqrt{144} = \square \rightarrow \boxed{E}$

Scratch space:

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

The final drive scoreboard is incomplete, showing total yards but missing some drive gains. Find the missing addends to secure the final lead on who the culprit is.

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:

$2 + \underline{\quad} = 14$

$36 + \underline{\quad} = 47$

$28 + \underline{\quad} = 31$

$2 + \underline{\quad} = 10$

$36 + \underline{\quad} = 42$

$10 + \underline{\quad} = 12$

$30 + \underline{\quad} = 34$

$4 + \underline{\quad} = 13$

$10 + \underline{\quad} = 15$

$22 + \underline{\quad} = 23$

$11 + \underline{\quad} = 18$

Step 2 - cross out the sentence with each answer:

1. The villain pulls off a massive ffive interception, then charges forward wearing a golden helmet.
2. The villain delivers a fierce stone cold stiff arm, then stomps down the sideline in spiked cleats.
3. The villain leaps for a high chokeslam catch, then flashes a glittering championship belt.
4. The villain delivers a fierce stone cold stiff arm, then dives past the defenders using padded elbow pads.
5. The villain delivers a fierce stone cold stiff arm, then blocks a heavy rush with a steel chair shield.
6. The villain pulls off a massive ffive interception, then blocks a heavy rush with a steel chair shield.
7. The villain executes a devastating spear tackle, then charges forward wearing a golden helmet.
8. The villain pulls off a massive ffive interception, then stomps down the sideline in spiked cleats.
9. The villain leaps for a high chokeslam catch, then stomps down the sideline in spiked cleats.
10. The villain crushes the quarterback with a tombstone sack, then flashes a glittering championship belt.
11. The villain leaps for a high chokeslam catch, then blocks a heavy rush with a steel chair shield.
12. The villain executes a devastating spear tackle, then flashes a glittering championship belt.

Answer Key

The Golden Pigskin Heist

Culprit: Rey Mysterio

Tombstone Sack · Championship Belt · Left-handed passer · Wild neon hair · Bright stadium lights

Trail: Start 21 → Clue 1 16 → Clue 2 8 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Pythagorean theorem): "THE ROGUE DOES NOT WEAR THE GOLDEN HELMET"

legs 60 and 63, hypotenuse = 87 (T) · legs 20 and 21, hypotenuse = 29 (M) · legs 25 and 60, hypotenuse = 65 (E) · legs 18 and 24, hypotenuse = 30 (W) · legs 21 and 72, hypotenuse = 75 (O) · legs 5 and 12, hypotenuse = 13 (N) · legs 12 and 35, hypotenuse = 37 (D) · legs 9 and 40, hypotenuse = 41 (L) · legs 32 and 60, hypotenuse = 68 (R) · legs 8 and 15, hypotenuse = 17 (U) · legs 24 and 70, hypotenuse = 74 (G) · legs 9 and 12, hypotenuse = 15 (H) · legs 80 and 84, hypotenuse = 116 (S) · legs 15 and 20, hypotenuse = 25 (A)

Clue 2 (Bar model word problems): "LEFT HANDED PASSER"

There were 157 cleats in all. 13 cleats were used. How many cleats are left? = 144 (L) · The rookie player used $\frac{2}{6}$ of the jersey straps on the first day. The other 36 jersey straps were used the next day. How many jersey straps were there in all? = 54 (H) · The red team has 169 mouthguards and the blue team has 32 mouthguards. How many more mouthguards does the red team have? = 137 (T) · One group collected 60 mouthguards and another group collected 23 mouthguards. How many mouthguards in all? = 83 (F) · The red team has 151 mouthguards and the blue team has 20 mouthguards. How many more mouthguards does the red team have? = 131 (E) · The rookie player used $\frac{2}{5}$ of the mouthguards on the first day. The other 75 mouthguards were used the next day. How many mouthguards were there in all? = 125 (A) · The rookie player used $\frac{1}{3}$ of the footballs on the first day. The other 86 footballs were used the next day. How many footballs were there in all? = 129 (N)

Clue 3 (Word problems): "BRIGHT STADIUM LIGHTS"

The rookie player found 32 footballs yesterday and 62 more today. How many footballs in all? = 94 (B) · There were 80 mouthguards. 31 were used up. How many mouthguards are left? = 49 (I) · The rookie player found 41 water bottles yesterday and 35 more today. How many water bottles in all? = 76 (S) · The rookie player found 5 water bottles yesterday and 101 more today. How many water bottles in all? = 106 (T) · There were 23 cleats. 16 were used up. How many cleats are left? = 7 (G) · There were 90 water bottles. 25 were used up. How many water bottles are left? = 65 (H) · There were 115 water bottles. 35 were used up. How many water bottles are left? = 80 (R)

Clue 4 (Square roots): "WE FOUND WILD NEON HAIR PIECES ON THE TURF"

$\sqrt{16} = 4$ (W) · $\sqrt{324} = 18$ (A) · $\sqrt{576} = 24$ (R) · $\sqrt{36} = 6$ (U) · $\sqrt{64} = 8$ (C) · $\sqrt{9} = 3$ (O) · $\sqrt{25} = 5$ (P) · $\sqrt{169} = 13$ (T) · $\sqrt{400} = 20$ (N) · $\sqrt{484} = 22$ (F) · $\sqrt{121} = 11$ (S) · $\sqrt{196} = 14$ (I) · $\sqrt{81} = 9$ (D) · $\sqrt{441} = 21$ (L) · $\sqrt{361} = 19$ (H) · $\sqrt{144} = 12$ (E)

Clue 5 (Missing addends): surviving statement is box 10 → Rey Mysterio

$2 + \underline{\quad} = 14 = 12$ · $36 + \underline{\quad} = 47 = 11$ · $28 + \underline{\quad} = 31 = 3$ · $2 + \underline{\quad} = 10 = 8$ · $36 + \underline{\quad} = 42 = 6$ · $10 + \underline{\quad} = 12 = 2$ · $30 + \underline{\quad} = 34 = 4$ · $4 + \underline{\quad} = 13 = 9$ · $10 + \underline{\quad} = 15 = 5$ · $22 + \underline{\quad} = 23 = 1$ · $11 + \underline{\quad} = 18 = 7$