



The Championship Playbook Heist

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

Detective: _____ Date: _____

Just minutes before the big kickoff, the legendary Golden Helmet Trophy went missing! A mysterious figure clad in football pads was spotted fleeing into the stadium tunnels. The Wildcats need to team up, analyze the clues left behind on the field, and retrieve the trophy before the championship game is cancelled.

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 Phantom Quarterback is _____

Possible suspects

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

NAME	SIGNATURE PLAY	LUCKY GEAR	HELMET VISOR	EYE BLACK STYLE	DEFENSIVE COUNTER
Lamar	Receiver Screen	Wrist Playbook	Tinted Visor	Full Face Paint	Blitz Package
Micah	Receiver Screen	Gold Cleats	Tinted Visor	Cross Stripes	Blitz Package
Cooper	Option Pitch	Hand Warmers	Tinted Visor	Full Face Paint	Blitz Package
TJ	Quarterback Sneak	Wrist Playbook	Tinted Visor	Single Swipe	Blitz Package
Deebo	Hail Mary Pass	Gold Cleats	Tinted Visor	Cross Stripes	Blitz Package
Myles	Option Pitch	Towel Attachment	Tinted Visor	Cross Stripes	Man Alignment
Aaron	Flea Flicker	Gold Cleats	Tinted Visor	Full Face Paint	Blitz Package
Justin	Hail Mary Pass	Wrist Playbook	Tinted Visor	Single Swipe	Blitz Package
Dak	Receiver Screen	Towel Attachment	Clear Visor	Full Face Paint	Blitz Package
Peyton	Hail Mary Pass	Gold Cleats	Tinted Visor	Full Face Paint	Man Alignment
Eli	Flea Flicker	Grip Gloves	Tinted Visor	Cross Stripes	Man Alignment
Roman	Hail Mary Pass	Wrist Playbook	Clear Visor	Cross Stripes	Blitz Package
Kailynn	Quarterback Sneak	Wrist Playbook	Tinted Visor	Full Face Paint	Blitz Package
Ryan	Quarterback Sneak	Wrist Playbook	Tinted Visor	Cross Stripes	Blitz Package
Jalen	Quarterback Sneak	Hand Warmers	Clear Visor	Single Swipe	Man Alignment
Donnie	Hail Mary Pass	Grip Gloves	Tinted Visor	Full Face Paint	Blitz Package
Bella	Quarterback Sneak	Wrist Playbook	Clear Visor	Full Face Paint	Man Alignment
Patrick	Hail Mary Pass	Hand Warmers	Clear Visor	Full Face Paint	Zone Coverage
Stefon	Option Pitch	Hand Warmers	Clear Visor	Cross Stripes	Zone Coverage
Brady	Quarterback Sneak	Gold Cleats	Tinted Visor	Full Face Paint	Man Alignment
Trevor	Flea Flicker	Wrist Playbook	Tinted Visor	Single Swipe	Zone Coverage

CLUE 1 Place value

Our team quarterback, Roman, notices the stadium scoreboard is glitching out. If we can read the place value of the flashing number on the giant screen, we can unlock the locker room locker containing the first major clue.

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

T 800	2000	1000	400	9000	400	6000	1000	7000	T 800	500	200	1000	400	100	200	800
9000	400	1000	2000	30	100	500	10	30	8000	20	1000	8000	400			

What is the value of the 8 in 493,844? → **T**

What is the value of the 1 in 685,613? → **W**

What is the value of the 4 in 61,476? → **S**

What is the value of the 2 in 67,121? → **M**

What is the value of the 8 in 58,329? → **R**

What is the value of the 6 in 776,383? → **P**

What is the value of the 1 in 81,373? → **E**

What is the value of the 5 in 904,531? → **D**

What is the value of the 7 in 17,296? → **C**

What is the value of the 9 in 79,503? → **U**

What is the value of the 1 in 925,135? → **N**

What is the value of the 2 in 653,283? → **O**

What is the value of the 2 in 972,500? → **H**

What is the value of the 3 in 546,837? → **A**

Scratch space:

CLUE 2

Word problems

Gabe and Donnie are looking over the offensive stat sheets. They have to solve a quick word problem about total rushing yards to decode the security guard's note.

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

A witness saw the villain was T T O R .

28 41 33 28 21 105 119 41 54

Coach lined up 7 rows of 4 helmets. How many helmets in all?

Answer: → T

Coach found 33 cleats yesterday and 8 more today. How many cleats in all?

Answer: → I

Coach lined up 11 rows of 3 whistles. How many whistles in all?

Answer: → N

Coach found 43 helmets yesterday and 62 more today. How many helmets in all?

Answer: → D

Coach found 61 footballs yesterday and 58 more today. How many footballs in all?

Answer: → V

Coach lined up 6 rows of 9 footballs. How many footballs in all?

Answer: → S

There were 54 whistles. 33 were used up. How many whistles are left?

Answer: → E

Scratch space:

CLUE 3

Bar model word problems

Kailynn and Ryan sketch out the opponent's passing route options using a bar model. Comparing the block segments reveals exactly which zone the suspect ran through.

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 B C K G E .

72 58 18 134 90 63 96 96

One group collected 21 cleats and another group collected 51 cleats. How many cleats in all?

draw a bar model

Answer: → B

There were 106 cleats in all. 10 cleats were used. How many cleats are left?

draw a bar model

Answer: → A

Coach shares 189 helmets equally among 3 teams. How many helmets does each team get?

draw a bar model

Answer: → P

Coach used $\frac{1}{3}$ of the footballs on the first day. The other 60 footballs were used the next day. How many footballs were there in all?

draw a bar model

Answer: → Z

Coach used $\frac{1}{2}$ of the whistles on the first day. The other 67 whistles were used the next day. How many whistles were there in all?

draw a bar model

Answer: → T

The red team has 56 helmets and the blue team has 38 helmets. How many more helmets does the red team have?

draw a bar model

Answer: → I

One group collected 35 yard markers and another group collected 23 yard markers. How many yard markers in all?

draw a bar model

Answer: → L

CLUE 4

Pythagorean theorem

Bella measures the diagonal pass route from the hash marks to the back corner of the end zone. Using the Pythagorean theorem, she pinpoints the exact spot where the thief leaped over the wall.

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

S																			
116	25	34	75	68	34	52	51	20	82	82	51	75	111	34	87	75	29	13	30
39	13	30	74	34	65	75	82	82											

legs 80 and 84, hypotenuse = → **S**

legs 20 and 48, hypotenuse = → **D**

legs 12 and 16, hypotenuse = → **U**

legs 24 and 45, hypotenuse = → **F**

legs 18 and 24, hypotenuse = → **T**

legs 7 and 24, hypotenuse = → **M**

legs 21 and 72, hypotenuse = → **A**

legs 32 and 60, hypotenuse = → **R**

legs 20 and 21, hypotenuse = → **I**

legs 15 and 36, hypotenuse = → **O**

legs 16 and 30, hypotenuse = → **E**

legs 24 and 70, hypotenuse = → **H**

legs 18 and 80, hypotenuse = → **L**

legs 25 and 60, hypotenuse = → **B**

legs 5 and 12, hypotenuse = → **N**

legs 36 and 105, hypotenuse = → **C**

legs 60 and 63, hypotenuse = → **P**

Scratch space:

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

To find the last piece of evidence, the team must balance the practice roster stats. Solving for the missing addend in the defensive drills points directly to the final suspect's profile.

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:

$14 + \underline{\quad} = 21$

$30 + \underline{\quad} = 42$

$33 + \underline{\quad} = 42$

$19 + \underline{\quad} = 27$

$12 + \underline{\quad} = 23$

$24 + \underline{\quad} = 29$

$34 + \underline{\quad} = 44$

$15 + \underline{\quad} = 16$

$24 + \underline{\quad} = 26$

$39 + \underline{\quad} = 43$

$33 + \underline{\quad} = 39$

Step 2 - cross out the sentence with each answer:

1. The villain executes a flawless option pitch, then checks the wrist playbook.
2. The villain executes a flawless option pitch, then dazzles the crowd with gold cleats.
3. The villain tosses a tricky flea flicker, then dazzles the crowd with gold cleats.
4. The villain fires a quick receiver screen, then heats up hands with hand warmers.
5. The villain tosses a tricky flea flicker, then catches the ball using grip gloves.
6. The villain executes a flawless option pitch, then wipes their brow with a towel attachment.
7. The villain fires a quick receiver screen, then checks the wrist playbook.
8. The villain bursts forward on a quarterback sneak, then wipes their brow with a towel attachment.
9. The villain hurls a massive hail mary pass, then catches the ball using grip gloves.
10. The villain fires a quick receiver screen, then dazzles the crowd with gold cleats.
11. The villain hurls a massive hail mary pass, then heats up hands with hand warmers.
12. The villain bursts forward on a quarterback sneak, then checks the wrist playbook.

Answer Key

The Championship Playbook Heist

Culprit: Aaron

Flea Flicker · Gold Cleats · Tinted Visor · Full Face Paint · Blitz Package

Trail: Start 21 → Clue 1 17 → Clue 2 14 → Clue 3 9 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE SUSPECT DOES NOT USE HAND WARMERS"

What is the value of the 8 in 493,844? = 800 (T) · What is the value of the 1 in 685,613? = 10 (W) · What is the value of the 4 in 61,476? = 400 (S) · What is the value of the 2 in 67,121? = 20 (M) · What is the value of the 8 in 58,329? = 8000 (R) · What is the value of the 6 in 776,383? = 6000 (P) · What is the value of the 1 in 81,373? = 1000 (E) · What is the value of the 5 in 904,531? = 500 (D) · What is the value of the 7 in 17,296? = 7000 (C) · What is the value of the 9 in 79,503? = 9000 (U) · What is the value of the 1 in 925,135? = 100 (N) · What is the value of the 2 in 653,283? = 200 (O) · What is the value of the 2 in 972,500? = 2000 (H) · What is the value of the 3 in 546,837? = 30 (A)

Clue 2 (Word problems): "TINTED VISOR"

Coach lined up 7 rows of 4 helmets. How many helmets in all? = 28 (T) · Coach found 33 cleats yesterday and 8 more today. How many cleats in all? = 41 (I) · Coach lined up 11 rows of 3 whistles. How many whistles in all? = 33 (N) · Coach found 43 helmets yesterday and 62 more today. How many helmets in all? = 105 (D) · Coach found 61 footballs yesterday and 58 more today. How many footballs in all? = 119 (V) · Coach lined up 6 rows of 9 footballs. How many footballs in all? = 54 (S) · There were 54 whistles. 33 were used up. How many whistles are left? = 21 (E)

Clue 3 (Bar model word problems): "BLITZ PACKAGE"

One group collected 21 cleats and another group collected 51 cleats. How many cleats in all? = 72 (B) · There were 106 cleats in all. 10 cleats were used. How many cleats are left? = 96 (A) · Coach shares 189 helmets equally among 3 teams. How many helmets does each team get? = 63 (P) · Coach used $\frac{1}{3}$ of the footballs on the first day. The other 60 footballs were used the next day. How many footballs were there in all? = 90 (Z) · Coach used $\frac{1}{2}$ of the whistles on the first day. The other 67 whistles were used the next day. How many whistles were there in all? = 134 (T) · The red team has 56 helmets and the blue team has 38 helmets. How many more helmets does the red team have? = 18 (I) · One group collected 35 yard markers and another group collected 23 yard markers. How many yard markers in all? = 58 (L)

Clue 4 (Pythagorean theorem): "SMEARED FULL FACE PAINT ON THE BALL"

legs 80 and 84, hypotenuse = 116 (S) · legs 20 and 48, hypotenuse = 52 (D) · legs 12 and 16, hypotenuse = 20 (U) · legs 24 and 45, hypotenuse = 51 (F) · legs 18 and 24, hypotenuse = 30 (T) · legs 7 and 24, hypotenuse = 25 (M) · legs 21 and 72, hypotenuse = 75 (A) · legs 32 and 60, hypotenuse = 68 (R) · legs 20 and 21, hypotenuse = 29 (I) · legs 15 and 36, hypotenuse = 39 (O) · legs 16 and 30, hypotenuse = 34 (E) · legs 24 and 70, hypotenuse = 74 (H) · legs 18 and 80, hypotenuse = 82 (L) · legs 25 and 60, hypotenuse = 65 (B) · legs 5 and 12, hypotenuse = 13 (N) · legs 36 and 105, hypotenuse = 111 (C) · legs 60 and 63, hypotenuse = 87 (P)

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

$14 + \underline{\quad} = 21 = 7$ · $30 + \underline{\quad} = 42 = 12$ · $33 + \underline{\quad} = 42 = 9$ · $19 + \underline{\quad} = 27 = 8$ · $12 + \underline{\quad} = 23 = 11$ · $24 + \underline{\quad} = 29 = 5$ · $34 + \underline{\quad} = 44 = 10$ · $15 + \underline{\quad} = 16 = 1$ · $24 + \underline{\quad} = 26 = 2$ · $39 + \underline{\quad} = 43 = 4$ · $33 + \underline{\quad} = 39 = 6$