



The Halloween Bowl Mystery

Grade 4 math · Place value, Addition, Subtraction, Rounding, Missing addends · Reading level grades 3-4

Detective: _____ Date: _____

Tonight is the annual Halloween Bowl, but someone hid the golden catnip trophy right before kickoff! Head Coach Whiskers saw a mysterious player in a spooky costume dash across the end zone with the trophy. Solve the math clues to figure out who swiped the trophy!

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 MOVE	HALLOWEEN GEAR	THROWING STYLE	FUR COLOR	DISTRACTION
Travis Kelcat	phantom pass	laser whistle	left handed	calico fur	silver whistle
Nick Bosacat	witch punt	shadow cleats	right handed	orange fur	silver whistle
Derrick Harecat	phantom pass	laser whistle	right handed	orange fur	silver whistle
Justin Hercat	witch punt	magic foam finger	left handed	orange fur	silver whistle
Saquon Barkcat	witch punt	glowing helmet	right handed	black fur	laser pointer
Joe Purrow	bat tackle	laser whistle	left handed	black fur	laser pointer
Josh Allencat	pumpkin kick	magic foam finger	right handed	black fur	silver whistle
Stefon Diggs	ghost sprint	glowing helmet	right handed	black fur	laser pointer
Lamar Jackcat	phantom pass	laser whistle	right handed	orange fur	laser pointer
Tyreek Tail	ghost sprint	shadow cleats	right handed	calico fur	silver whistle
Tom Catty	ghost sprint	shadow cleats	right handed	black fur	silver whistle
Aaron Rodgers	pumpkin kick	laser whistle	right handed	black fur	laser pointer
Jalen Hurts	bat tackle	magic foam finger	right handed	black fur	laser pointer
Micah Parson	witch punt	glowing helmet	left handed	calico fur	laser pointer
Peyton Meowing	witch punt	flying broomstick	left handed	calico fur	silver whistle
Cooper Kupp	pumpkin kick	laser whistle	left handed	black fur	silver whistle
Justin Jefferson	bat tackle	shadow cleats	right handed	black fur	laser pointer
Pats Mahomes	pumpkin kick	glowing helmet	right handed	black fur	catnip spray
Deebo Lamb	bat tackle	magic foam finger	right handed	black fur	silver whistle
Deebo Sam	ghost sprint	laser whistle	left handed	calico fur	laser pointer
Rob Gronk	phantom pass	glowing helmet	left handed	black fur	laser pointer

CLUE 1 Place value

Coach Whiskers checked the locker room keypad. Look at the digit in the correct place value to unlock Clue One.

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

T																T
70	200	40	3000	300	50	50	20	300	7000	400	500	40	1000	7000	500	70
100	1000	40	1000	200	20	400	500	90	5000	50	40	20	70	1000		

What is the value of the 7 in 272? → **T**

What is the value of the 1 in 175? → **U**

What is the value of the 4 in 841? → **E**

What is the value of the 5 in 2,859? → **L**

What is the value of the 7 in 57,533? → **N**

What is the value of the 3 in 23,247? → **V**

What is the value of the 2 in 3,026? → **A**

What is the value of the 9 in 1,596? → **W**

What is the value of the 5 in 2,524? → **O**

What is the value of the 1 in 1,749? → **S**

What is the value of the 5 in 65,923? → **C**

What is the value of the 4 in 496? → **D**

What is the value of the 2 in 277? → **H**

What is the value of the 3 in 4,379? → **I**

Scratch space:

CLUE 2 Addition

The cheerleader cats added up all the pumpkin buckets on the sidelines to get the next clue.

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

W									W						
9885	9738	3934	9533	5577	8554	8554	8554	4267	9885	4267	9620	9738	3291	9682	3934

9682	4267	9533	5470	5577	5470	8259	4267	8554	8554

$5261 + 4624 = \square \rightarrow \text{W}$	$1889 + 2045 = \square \rightarrow \text{T}$	$2340 + 3130 = \square \rightarrow \text{D}$
$4883 + 3376 = \square \rightarrow \text{P}$	$2496 + 1771 = \square \rightarrow \text{A}$	$3429 + 2148 = \square \rightarrow \text{E}$
$2826 + 5728 = \square \rightarrow \text{S}$	$3097 + 6523 = \square \rightarrow \text{R}$	$5913 + 3620 = \square \rightarrow \text{N}$
$3418 + 6264 = \square \rightarrow \text{H}$	$6325 + 3413 = \square \rightarrow \text{I}$	$1765 + 1526 = \square \rightarrow \text{G}$

Scratch space:

CLUE 3

Subtraction

The referee subtracted the field penalty yards from the scoreboard to reveal Clue Three.

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

D					D														
5043	2485	8707	2485	8273	5043	2485	1983	8707	3946	4748	1944	3466	2485	5043	3946	4748	1944	2485	1983
														D					
7025	8788	7439	8273	5467	2485	1983	4748	5467	8707	7439	2485	3946	5043						

$5051 - 8 = \square \rightarrow \boxed{\text{D}}$

$11316 - 2528 = \square \rightarrow \boxed{\text{O}}$

$6516 - 1768 = \square \rightarrow \boxed{\text{A}}$

$6785 - 4841 = \square \rightarrow \boxed{\text{S}}$

$11694 - 3421 = \square \rightarrow \boxed{\text{N}}$

$5733 - 266 = \square \rightarrow \boxed{\text{T}}$

$10832 - 3393 = \square \rightarrow \boxed{\text{I}}$

$9856 - 2831 = \square \rightarrow \boxed{\text{P}}$

$6737 - 4754 = \square \rightarrow \boxed{\text{R}}$

$4045 - 99 = \square \rightarrow \boxed{\text{L}}$

$6978 - 3512 = \square \rightarrow \boxed{\text{H}}$

$6918 - 4433 = \square \rightarrow \boxed{\text{E}}$

$12666 - 3959 = \square \rightarrow \boxed{\text{F}}$

Scratch space:

CLUE 4 Rounding

The stadium radar gun only shows rounded speed numbers on the jumbotron to give Clue Four.

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

B																	
4300	2900	5000	50	170	500	200	1100	230	5000	370	500	30	200	2300	1700	30	2300

7000	90	900	7000	1100	30	70	90	300

Round 4,260 to the nearest hundred → **B**

Round 52 to the nearest ten → **C**

Round 170 to the nearest hundred → **U**

Round 69 to the nearest ten → **P**

Round 93 to the nearest ten → **H**

Round 2,277 to the nearest hundred → **N**

Round 5,067 to the nearest thousand → **A**

Round 167 to the nearest ten → **K**

Round 7,223 to the nearest thousand → **T**

Round 29 to the nearest ten → **O**

Round 1,687 to the nearest hundred → **D**

Round 473 to the nearest hundred → **F**

Round 314 to the nearest hundred → **Y**

Round 230 to the nearest ten → **W**

Round 1,059 to the nearest hundred → **R**

Round 859 to the nearest hundred → **E**

Round 368 to the nearest ten → **S**

Round 2,917 to the nearest hundred → **L**

Scratch space:

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

Find the missing score needed to tie the game to uncover 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:

$2 + \underline{\quad} = 3$

$40 + \underline{\quad} = 47$

$37 + \underline{\quad} = 39$

$18 + \underline{\quad} = 30$

$37 + \underline{\quad} = 48$

$6 + \underline{\quad} = 15$

$30 + \underline{\quad} = 40$

$14 + \underline{\quad} = 17$

$31 + \underline{\quad} = 39$

$22 + \underline{\quad} = 27$

$40 + \underline{\quad} = 44$

Step 2 - cross out the sentence with each answer:

1. The villain lofted a witch punt, then lit up a glowing helmet.
2. The villain made a pumpkin kick, then blasted a laser whistle.
3. The villain executed a bat tackle, then lit up a glowing helmet.
4. The villain ran a ghost sprint, then zoomed on a flying broomstick.
5. The villain made a pumpkin kick, then waved a magic foam finger.
6. The villain executed a bat tackle, then waved a magic foam finger.
7. The villain ran a ghost sprint, then lit up a glowing helmet.
8. The villain ran a ghost sprint, then sneaked in shadow cleats.
9. The villain lofted a witch punt, then waved a magic foam finger.
10. The villain lofted a witch punt, then zoomed on a flying broomstick.
11. The villain executed a bat tackle, then sneaked in shadow cleats.
12. The villain threw a phantom pass, then sneaked in shadow cleats.

Answer Key

The Halloween Bowl Mystery

Culprit: Jalen Hurtscat

bat tackle · magic foam finger · right handed · black fur · laser pointer

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

Clue 1 (Place value): "THE VILLAIN DOES NOT USE SHADOW CLEATS"

What is the value of the 7 in 272? = 70 (T) · What is the value of the 1 in 175? = 100 (U) · What is the value of the 4 in 841? = 40 (E) · What is the value of the 5 in 2,859? = 50 (L) · What is the value of the 7 in 57,533? = 7000 (N) · What is the value of the 3 in 23,247? = 3000 (V) · What is the value of the 2 in 3,026? = 20 (A) · What is the value of the 9 in 1,596? = 90 (W) · What is the value of the 5 in 2,524? = 500 (O) · What is the value of the 1 in 1,749? = 1000 (S) · What is the value of the 5 in 65,923? = 5000 (C) · What is the value of the 4 in 496? = 400 (D) · What is the value of the 2 in 277? = 200 (H) · What is the value of the 3 in 4,379? = 300 (I)

Clue 2 (Addition): "WITNESS SAW A RIGHT HANDED PASS"

$5261 + 4624 = 9885$ (W) · $1889 + 2045 = 3934$ (T) · $2340 + 3130 = 5470$ (D) · $4883 + 3376 = 8259$ (P) · $2496 + 1771 = 4267$ (A) · $3429 + 2148 = 5577$ (E) · $2826 + 5728 = 8554$ (S) · $3097 + 6523 = 9620$ (R) · $5913 + 3620 = 9533$ (N) · $3418 + 6264 = 9682$ (H) · $6325 + 3413 = 9738$ (I) · $1765 + 1526 = 3291$ (G)

Clue 3 (Subtraction): "DEFENDER FLASHED LASER POINTER AT FIELD"

$5051 - 8 = 5043$ (D) · $11316 - 2528 = 8788$ (O) · $6516 - 1768 = 4748$ (A) · $6785 - 4841 = 1944$ (S) · $11694 - 3421 = 8273$ (N) · $5733 - 266 = 5467$ (T) · $10832 - 3393 = 7439$ (I) · $9856 - 2831 = 7025$ (P) · $6737 - 4754 = 1983$ (R) · $4045 - 99 = 3946$ (L) · $6978 - 3512 = 3466$ (H) · $6918 - 4433 = 2485$ (E) · $12666 - 3959 = 8707$ (F)

Clue 4 (Rounding): "BLACK FUR WAS FOUND ON THE TROPHY"

Round 4,260 to the nearest hundred = 4300 (B) · Round 52 to the nearest ten = 50 (C) · Round 170 to the nearest hundred = 200 (U) · Round 69 to the nearest ten = 70 (P) · Round 93 to the nearest ten = 90 (H) · Round 2,277 to the nearest hundred = 2300 (N) · Round 5,067 to the nearest thousand = 5000 (A) · Round 167 to the nearest ten = 170 (K) · Round 7,223 to the nearest thousand = 7000 (T) · Round 29 to the nearest ten = 30 (O) · Round 1,687 to the nearest hundred = 1700 (D) · Round 473 to the nearest hundred = 500 (F) · Round 314 to the nearest hundred = 300 (Y) · Round 230 to the nearest ten = 230 (W) · Round 1,059 to the nearest hundred = 1100 (R) · Round 859 to the nearest hundred = 900 (E) · Round 368 to the nearest ten = 370 (S) · Round 2,917 to the nearest hundred = 2900 (L)

Clue 5 (Missing addends): surviving statement is box 6 → Jalen Hurtscat

$2 + \underline{\quad} = 3 = 1$ · $40 + \underline{\quad} = 47 = 7$ · $37 + \underline{\quad} = 39 = 2$ · $18 + \underline{\quad} = 30 = 12$ · $37 + \underline{\quad} = 48 = 11$ · $6 + \underline{\quad} = 15 = 9$ · $30 + \underline{\quad} = 40 = 10$ · $14 + \underline{\quad} = 17 = 3$ · $31 + \underline{\quad} = 39 = 8$ · $22 + \underline{\quad} = 27 = 5$ · $40 + \underline{\quad} = 44 = 4$