



The Mystery of the Golden Snitch Ball

Grade 4 math · Rounding, Addition, Subtraction, Multiplication, Division · Reading level grades 3-4

Detective: _____ Date: _____

Someone swiped the grand prize trophy right before the big game! The stadium is made of blocky bricks, and the players are magical sport cats who use spells and skills. We must crack the case before the 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 the Shadow Striker is _____

Possible suspects

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

NAME	MAGICAL SPORTS GEAR	SECRET POTION	WRISTBAND STYLE	CAT FUR PATTERN	DISTRACTION METHOD
Lionel Meowssi	Ender Pearl Hoops	Gillyweed Smoothie	Wears Right Wristband	Black Cat Fur	Squeaky Toy Sound
Kevin Durcat	Diamond Cleats	Floo Powder Dust	Wears Right Wristband	Ginger Stripes	Luminous Laser Pointer
Stephen Purry	Golden Snitch Ball	Floo Powder Dust	Wears Left Wristband	Ginger Stripes	Luminous Laser Pointer
Giannis Anteto	Firebolt Sneaker	Pepperup Cocoa	Wears Right Wristband	Calico Patches	Catnip treats
Hermione Ginger	Firebolt Sneaker	Leaping Potion	Wears Right Wristband	Black Cat Fur	Squeaky Toy Sound
Michael Clawdan	Diamond Cleats	Gillyweed Smoothie	Wears Right Wristband	Black Cat Fur	Squeaky Toy Sound
Whiskers Potter	Golden Snitch Ball	Pepperup Cocoa	Wears Left Wristband	Calico Patches	Catnip treats
LeBron Fang	Invisibility Jersey	Gillyweed Smoothie	Wears Left Wristband	Black Cat Fur	Catnip treats
Neymar Claw	Ender Pearl Hoops	Leaping Potion	Wears Right Wristband	Calico Patches	Catnip treats
Selena Paws	Ender Pearl Hoops	Pepperup Cocoa	Wears Left Wristband	Ginger Stripes	Luminous Laser Pointer
Fluffy Weasley	Invisibility Jersey	Felix Felicis Juice	Wears Left Wristband	Black Cat Fur	Squeaky Toy Sound
Professor Lupin	Firebolt Sneaker	Leaping Potion	Wears Right Wristband	Ginger Stripes	Catnip treats
Ron Whisker	Firebolt Sneaker	Leaping Potion	Wears Right Wristband	Calico Patches	Catnip treats
Draco Mewfoy	Ender Pearl Hoops	Leaping Potion	Wears Left Wristband	Black Cat Fur	Squeaky Toy Sound
Kylian Meowppe	Ender Pearl Hoops	Floo Powder Dust	Wears Right Wristband	Black Cat Fur	Squeaky Toy Sound
McGonagall	Firebolt Sneaker	Gillyweed Smoothie	Wears Left Wristband	Black Cat Fur	Squeaky Toy Sound
Mittens McFly	Ender Pearl Hoops	Felix Felicis Juice	Wears Right Wristband	Black Cat Fur	Squeaky Toy Sound
Luna Lovecat	Firebolt Sneaker	Felix Felicis Juice	Wears Left Wristband	Calico Patches	Luminous Laser Pointer
Luka Meowcic	Ender Pearl Hoops	Gillyweed Smoothie	Wears Right Wristband	Black Cat Fur	Luminous Laser Pointer
Harry Pawter	Firebolt Sneaker	Pepperup Cocoa	Wears Right Wristband	Calico Patches	Squeaky Toy Sound
Cristiano Ronawldo	Invisibility Jersey	Felix Felicis Juice	Wears Right Wristband	Ginger Stripes	Luminous Laser Pointer

CLUE 1 Rounding

A sensor on the blocky scoreboard only shows numbers rounded to the nearest ten.

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

T			T											T			
7000	30	1300	7000	30	50	1300	1700	90	5000	1300	2000	430	5000	7000	110	2000	1300
														T			
1700	2900	5000	5000	3700	5000	500	90	1300	370	90	110	2000	7000				

Round 6,922 to the nearest thousand → **T**

Round 369 to the nearest ten → **R**

Round 112 to the nearest ten → **U**

Round 2,853 to the nearest hundred → **L**

Round 5,349 to the nearest thousand → **O**

Round 516 to the nearest hundred → **W**

Round 1,744 to the nearest hundred → **F**

Round 2,282 to the nearest thousand → **S**

Round 51 to the nearest ten → **I**

Round 1,263 to the nearest hundred → **E**

Round 434 to the nearest ten → **N**

Round 3,738 to the nearest hundred → **P**

Round 33 to the nearest ten → **H**

Round 93 to the nearest ten → **D**

Scratch space:

CLUE 2 Addition

We tallied up the total number of magic potion bottles found in the locker room.

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

T									T						
7239	8912	6571	8129	3317	8129	5756	6571	9447	7239	4506	6571	5199	6972	8129	5199

				T					T				
6972	4338	9837	8912	7239	4506	6972	4338	8129	7239	5672	5199	6107	6525

$4246 + 2993 = \square \rightarrow \text{T}$

$2439 + 3668 = \square \rightarrow \text{N}$

$3078 + 1428 = \square \rightarrow \text{W}$

$3274 + 3698 = \square \rightarrow \text{R}$

$3339 + 3186 = \square \rightarrow \text{D}$

$5318 + 4129 = \square \rightarrow \text{C}$

$3441 + 6396 = \square \rightarrow \text{G}$

$1832 + 3840 = \square \rightarrow \text{B}$

$2199 + 3000 = \square \rightarrow \text{A}$

$2101 + 2237 = \square \rightarrow \text{I}$

$2280 + 3476 = \square \rightarrow \text{P}$

$2222 + 1095 = \square \rightarrow \text{U}$

$4506 + 3623 = \square \rightarrow \text{S}$

$4863 + 4049 = \square \rightarrow \text{H}$

$3658 + 2913 = \square \rightarrow \text{E}$

Scratch space:

CLUE 3

Subtraction

We took the total count of flying snitches and subtracted the ones that escaped.

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

T										T		T				
8358	2260	7731	6944	7356	1801	6982	6982	5531	8358	5041	8358	1801	6982	6530	1801	

							T								
5041	8462	5328	7731	1801	3082	6944	8358	5531	6944	5041	5531	5328	6982	6530	

$11275 - 2917 = \square \rightarrow \text{[T]}$

$7684 - 2356 = \square \rightarrow \text{[U]}$

$9003 - 2021 = \square \rightarrow \text{[N]}$

$7077 - 4817 = \square \rightarrow \text{[H]}$

$9288 - 3757 = \square \rightarrow \text{[O]}$

$12235 - 3773 = \square \rightarrow \text{[Q]}$

$9854 - 2123 = \square \rightarrow \text{[E]}$

$8376 - 1020 = \square \rightarrow \text{[C]}$

$4109 - 2308 = \square \rightarrow \text{[A]}$

$7914 - 1384 = \square \rightarrow \text{[D]}$

$9909 - 4868 = \square \rightarrow \text{[S]}$

$4893 - 1811 = \square \rightarrow \text{[K]}$

$9870 - 2926 = \square \rightarrow \text{[Y]}$

Scratch space:

CLUE 4

Multiplication facts (1-12)

We counted the boxes of wizard soccer cleats stored in equal rows.

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

L								L										
99	33	33	25	16	33	70	24	99	35	55	25	55	35	110	16	44	70	
35	110	110	28	2	84	55	2	100	2									

$9 \times 11 = \square \rightarrow \boxed{\text{L}}$

$5 \times 5 = \square \rightarrow \boxed{\text{K}}$

$3 \times 11 = \square \rightarrow \boxed{\text{O}}$

$11 \times 4 = \square \rightarrow \boxed{\text{U}}$

$2 \times 1 = \square \rightarrow \boxed{\text{E}}$

$10 \times 10 = \square \rightarrow \boxed{\text{N}}$

$7 \times 10 = \square \rightarrow \boxed{\text{R}}$

$4 \times 7 = \square \rightarrow \boxed{\text{H}}$

$8 \times 2 = \square \rightarrow \boxed{\text{F}}$

$5 \times 7 = \square \rightarrow \boxed{\text{A}}$

$8 \times 3 = \square \rightarrow \boxed{\text{B}}$

$7 \times 12 = \square \rightarrow \boxed{\text{S}}$

$5 \times 11 = \square \rightarrow \boxed{\text{C}}$

$11 \times 10 = \square \rightarrow \boxed{\text{T}}$

Scratch space:

CLUE 5**Division facts (1-12) - the last clue**

We shared the catnip treats equally among the team players to find the secret number.

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:

$33 \div 11 = \square$

$20 \div 2 = \square$

$4 \div 1 = \square$

$88 \div 11 = \square$

$18 \div 3 = \square$

$11 \div 11 = \square$

$11 \div 1 = \square$

$5 \div 1 = \square$

$4 \div 2 = \square$

$56 \div 8 = \square$

$120 \div 10 = \square$

Step 2 - cross out the sentence with each answer:

1. The villain shot a magical three-pointer, then sprinkled some floo powder dust.
2. The villain dribbled the blocky soccer ball, then drank hot pepperup cocoa.
3. The villain cast a wingardium leviosa spell, then sipped a gillyweed smoothie.
4. The villain dribbled the blocky soccer ball, then drank a leaping potion.
5. The villain dribbled the blocky soccer ball, then sprinkled some floo powder dust.
6. The villain dashed past the cat-defenders, then drank hot pepperup cocoa.
7. The villain cast a wingardium leviosa spell, then drank hot pepperup cocoa.
8. The villain dashed past the cat-defenders, then drank a leaping potion.
9. The villain teleported with an ender pearl, then sipped a gillyweed smoothie.
10. The villain cast a wingardium leviosa spell, then drank some felix felcis juice.
11. The villain teleported with an ender pearl, then sprinkled some floo powder dust.
12. The villain dashed past the cat-defenders, then sipped a gillyweed smoothie.

Answer Key

The Mystery of the Golden Snitch Ball

Culprit: Michael Clawdan

Diamond Cleats · Gillyweed Smoothie · Wears Right Wristband · Black Cat Fur · Squeaky Toy Sound

Trail: Start 21 → Clue 1 18 → Clue 2 11 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE THIEF DOES NOT USE FLOO POWDER DUST"

Round 6,922 to the nearest thousand = 7000 (T) · Round 369 to the nearest ten = 370 (R) · Round 112 to the nearest ten = 110 (U) · Round 2,853 to the nearest hundred = 2900 (L) · Round 5,349 to the nearest thousand = 5000 (O) · Round 516 to the nearest hundred = 500 (W) · Round 1,744 to the nearest hundred = 1700 (F) · Round 2,282 to the nearest thousand = 2000 (S) · Round 51 to the nearest ten = 50 (I) · Round 1,263 to the nearest hundred = 1300 (E) · Round 434 to the nearest ten = 430 (N) · Round 3,738 to the nearest hundred = 3700 (P) · Round 33 to the nearest ten = 30 (H) · Round 93 to the nearest ten = 90 (D)

Clue 2 (Addition): "THE SUSPECT WEARS A RIGHT WRISTBAND"

$4246 + 2993 = 7239$ (T) · $2439 + 3668 = 6107$ (N) · $3078 + 1428 = 4506$ (W) · $3274 + 3698 = 6972$ (R) · $3339 + 3186 = 6525$ (D) · $5318 + 4129 = 9447$ (C) · $3441 + 6396 = 9837$ (G) · $1832 + 3840 = 5672$ (B) · $2199 + 3000 = 5199$ (A) · $2101 + 2237 = 4338$ (I) · $2280 + 3476 = 5756$ (P) · $2222 + 1095 = 3317$ (U) · $4506 + 3623 = 8129$ (S) · $4863 + 4049 = 8912$ (H) · $3658 + 2913 = 6571$ (E)

Clue 3 (Subtraction): "THEY CANNOT STAND A SQUEAKY TOY SOUND"

$11275 - 2917 = 8358$ (T) · $7684 - 2356 = 5328$ (U) · $9003 - 2021 = 6982$ (N) · $7077 - 4817 = 2260$ (H) · $9288 - 3757 = 5531$ (O) · $12235 - 3773 = 8462$ (Q) · $9854 - 2123 = 7731$ (E) · $8376 - 1020 = 7356$ (C) · $4109 - 2308 = 1801$ (A) · $7914 - 1384 = 6530$ (D) · $9909 - 4868 = 5041$ (S) · $4893 - 1811 = 3082$ (K) · $9870 - 2926 = 6944$ (Y)

Clue 4 (Multiplication facts (1-12)): "LOOK FOR BLACK CAT FUR AT THE SCENE"

$9 \times 11 = 99$ (L) · $5 \times 5 = 25$ (K) · $3 \times 11 = 33$ (O) · $11 \times 4 = 44$ (U) · $2 \times 1 = 2$ (E) · $10 \times 10 = 100$ (N) · $7 \times 10 = 70$ (R) · $4 \times 7 = 28$ (H) · $8 \times 2 = 16$ (F) · $5 \times 7 = 35$ (A) · $8 \times 3 = 24$ (B) · $7 \times 12 = 84$ (S) · $5 \times 11 = 55$ (C) · $11 \times 10 = 110$ (T)

Clue 5 (Division facts (1-12)): surviving statement is box 9 → Michael Clawdan

$33 \div 11 = 3$ · $20 \div 2 = 10$ · $4 \div 1 = 4$ · $88 \div 11 = 8$ · $18 \div 3 = 6$ · $11 \div 11 = 1$ · $11 \div 1 = 11$ · $5 \div 1 = 5$ · $4 \div 2 = 2$ · $56 \div 8 = 7$ · $120 \div 10 = 12$