



The Case of the Missing Golden Snitch

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

Detective: _____ Date: _____

Someone has snuck into the Hogwarts Trophy Room and snatched the Golden Snitch right before the big game! The Quidditch Captain is frantic. A trail of magical sparks leads us to twenty-four student suspects. We must use magic and math to crack the case!

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 sneaky wizard is _____

Possible suspects

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

NAME	FAVORITE SPELL	MAGICAL GEAR	WAND HAND	HAIR COLOR	BIGGEST FEAR
Cassius	Levicorpus	Remembrall	Right-handed caster	Messy black hair	Afraid of heights
Rowena	Expelliarmus	Invisibility Cloak	Left-handed caster	Bright red hair	Scared of spiders
Barnaby	Levicorpus	Invisibility Cloak	Left-handed caster	Bright red hair	Scared of spiders
Amara	Petrificus	Omnioculars	Right-handed caster	Messy black hair	Scared of spiders
Helena	Lumos	Marauders Map	Right-handed caster	Messy black hair	Scared of spiders
Fiona	Lumos	Marauders Map	Right-handed caster	Messy black hair	Allergic to floo powder
Evelyn	Levicorpus	Sneakoscope	Left-handed caster	Bushy brown hair	Allergic to floo powder
Wilfred	Expelliarmus	Omnioculars	Right-handed caster	Bright red hair	Allergic to floo powder
Millicent	Alohomora	Omnioculars	Right-handed caster	Bushy brown hair	Scared of spiders
Quentin	Alohomora	Omnioculars	Right-handed caster	Bright red hair	Afraid of heights
Xavier	Petrificus	Invisibility Cloak	Right-handed caster	Bushy brown hair	Scared of spiders
Phineas	Expelliarmus	Sneakoscope	Right-handed caster	Messy black hair	Allergic to floo powder
Silas	Alohomora	Omnioculars	Right-handed caster	Messy black hair	Scared of spiders
Julian	Levicorpus	Sneakoscope	Left-handed caster	Bright red hair	Scared of spiders
Uriah	Petrificus	Invisibility Cloak	Right-handed caster	Messy black hair	Afraid of heights
Tabitha	Lumos	Remembrall	Right-handed caster	Bright red hair	Scared of spiders
Ignatius	Expelliarmus	Sneakoscope	Right-handed caster	Messy black hair	Scared of spiders
Garrick	Expelliarmus	Marauders Map	Right-handed caster	Bright red hair	Allergic to floo powder
Valerie	Expelliarmus	Invisibility Cloak	Left-handed caster	Messy black hair	Scared of spiders
Zacharias	Expelliarmus	Remembrall	Right-handed caster	Messy black hair	Scared of spiders
Orion	Levicorpus	Invisibility Cloak	Right-handed caster	Messy black hair	Scared of spiders

CLUE 1 Rounding

We check the magic Sneakoscope on the desk. Its spinning dial only shows numbers rounded to the nearest ten. Let us estimate the power level to unlock the first clue!

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

T																			
1100	30	900	5000	9000	900	90	2300	370	500	3700	3000	90	230	70	70	130	900	5000	

		T																
9000	130	1100	130	500	9000	130	200	9000	3700	130	50	700	7000	90	230	5000		

Round 1,127 to the nearest hundred → **T**

Round 2,951 to the nearest thousand → **Z**

Round 69 to the nearest ten → **D**

Round 939 to the nearest hundred → **E**

Round 27 to the nearest ten → **H**

Round 4,536 to the nearest thousand → **S**

Round 6,913 to the nearest thousand → **L**

Round 3,673 to the nearest hundred → **I**

Round 233 to the nearest ten → **R**

Round 369 to the nearest ten → **Y**

Round 8,542 to the nearest thousand → **N**

Round 740 to the nearest hundred → **U**

Round 178 to the nearest hundred → **M**

Round 460 to the nearest hundred → **W**

Round 2,284 to the nearest hundred → **K**

Round 91 to the nearest ten → **A**

Round 54 to the nearest ten → **C**

Round 131 to the nearest ten → **O**

Scratch space:

CLUE 2 Addition

To open the locked potion cabinet, we need to count the total number of ingredients. Let us add up the newt eyes and beetle eyes to get the answer.

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

T						T														
6757	2749	3592		7699	5692	7657	6757	7462	8439	2480	7657	7168	5692	2830	5463	7657	8741	3830	3592	4379
				T							T									
8741	2830	2734	7346	6757	2749	3592	2830	7462	2480	2749	6757	2749	5692	8439	7834					

$3889 + 2868 = \square \rightarrow$ T	$965 + 1784 = \square \rightarrow$ H	$3676 + 4763 = \square \rightarrow$ N
$4590 + 2578 = \square \rightarrow$ P	$1164 + 1570 = \square \rightarrow$ O	$1837 + 1755 = \square \rightarrow$ E
$858 + 1622 = \square \rightarrow$ G	$1778 + 2601 = \square \rightarrow$ W	$3854 + 3980 = \square \rightarrow$ D
$1713 + 2117 = \square \rightarrow$ L	$4639 + 3060 = \square \rightarrow$ C	$4566 + 2896 = \square \rightarrow$ I
$2404 + 3059 = \square \rightarrow$ K	$4347 + 3310 = \square \rightarrow$ S	$4992 + 2354 = \square \rightarrow$ M
$5951 + 2790 = \square \rightarrow$ F	$1067 + 1763 = \square \rightarrow$ R	$3061 + 2631 = \square \rightarrow$ A

Scratch space:

CLUE 3
Subtraction

We had a large bag of floo powder, but some was used to travel between classrooms. Let us subtract the used powder to see how much magical fuel is left.

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

T															
8199	1349	5835	8698	1145	3707	4984	5369	7582	5369	4984	1160	4984	8698	4984	8010

					T									
5576	5369	2007	5353	4984	8199	1145	1160	8010	8275	5113	1145	7582	5835	5369

$11087 - 2888 = \square \rightarrow \text{[T]}$

$8714 - 1132 = \square \rightarrow \text{[D]}$

$9236 - 3660 = \square \rightarrow \text{[F]}$

$7143 - 3436 = \square \rightarrow \text{[Z]}$

$8499 - 224 = \square \rightarrow \text{[S]}$

$2153 - 804 = \square \rightarrow \text{[H]}$

$6477 - 1364 = \square \rightarrow \text{[P]}$

$4227 - 3067 = \square \rightarrow \text{[N]}$

$3252 - 1245 = \square \rightarrow \text{[O]}$

$9845 - 4476 = \square \rightarrow \text{[R]}$

$2356 - 1211 = \square \rightarrow \text{[I]}$

$9049 - 1039 = \square \rightarrow \text{[Y]}$

$9070 - 4086 = \square \rightarrow \text{[A]}$

$6100 - 747 = \square \rightarrow \text{[M]}$

$13685 - 4987 = \square \rightarrow \text{[W]}$

$9072 - 3237 = \square \rightarrow \text{[E]}$

Scratch space:

CLUE 4

Multiplication facts (1-12)

The herbology greenhouse has several neat rows of mandrakes. Let us multiply the rows by the number of plants in each row to find the total.

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

W																
96	6	25	90	33	2	1	81	6	49	49	144	72	18	108	77	15
28	108	27	10	90	2	120	28	6	49	28	6	18	25			

$8 \times 12 = \square \rightarrow \boxed{\text{W}}$

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

$9 \times 8 = \square \rightarrow \boxed{\text{B}}$

$6 \times 3 = \square \rightarrow \boxed{\text{L}}$

$9 \times 9 = \square \rightarrow \boxed{\text{M}}$

$5 \times 3 = \square \rightarrow \boxed{\text{K}}$

$3 \times 9 = \square \rightarrow \boxed{\text{I}}$

$9 \times 12 = \square \rightarrow \boxed{\text{A}}$

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

$1 \times 1 = \square \rightarrow \boxed{\text{D}}$

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

$10 \times 9 = \square \rightarrow \boxed{\text{O}}$

$10 \times 12 = \square \rightarrow \boxed{\text{T}}$

$11 \times 7 = \square \rightarrow \boxed{\text{C}}$

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

$12 \times 12 = \square \rightarrow \boxed{\text{Y}}$

$2 \times 3 = \square \rightarrow \boxed{\text{E}}$

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

$2 \times 5 = \square \rightarrow \boxed{\text{R}}$

Scratch space:

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

We found a box of chocolate frogs to share among the young wizards. Let us divide the treats equally so everyone gets an even share.

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:

$24 \div 8 = \boxed{}$

$72 \div 12 = \boxed{}$

$15 \div 3 = \boxed{}$

$8 \div 4 = \boxed{}$

$66 \div 6 = \boxed{}$

$44 \div 11 = \boxed{}$

$120 \div 10 = \boxed{}$

$54 \div 6 = \boxed{}$

$3 \div 3 = \boxed{}$

$10 \div 1 = \boxed{}$

$64 \div 8 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain uses petrificus to freeze the guard portrait, then slips away under an invisibility cloak.
2. The villain uses petrificus to freeze the guard portrait, then uses the marauders map to dodge the prefects.
3. The villain whispers lumos to light the dark room, then uses the marauders map to dodge the prefects.
4. The villain uses petrificus to freeze the guard portrait, then checks their remembrall to recall the way out.
5. The villain casts levicorpus to float the trophy, then slips away under an invisibility cloak.
6. The villain casts expelliarmus to disarm the lock, then hides the prize when the sneakoscope spins.
7. The villain casts expelliarmus to disarm the lock, then checks their remembrall to recall the way out.
8. The villain uses petrificus to freeze the guard portrait, then peers through the omnioculars to spot guards.
9. The villain whispers lumos to light the dark room, then slips away under an invisibility cloak.
10. The villain whispers lumos to light the dark room, then checks their remembrall to recall the way out.
11. The villain casts expelliarmus to disarm the lock, then peers through the omnioculars to spot guards.
12. The villain casts levicorpus to float the trophy, then uses the marauders map to dodge the prefects.

Answer Key

The Case of the Missing Golden Snitch

Culprit: Zacharias

Expelliarmus · Remembrall · Right-handed caster · Messy black hair · Scared of spiders

Trail: Start 21 → Clue 1 16 → Clue 2 11 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE SNEAKY WIZARD DOES NOT OWN OMNIOCLARUS"

Round 1,127 to the nearest hundred = 1100 (T) · Round 2,951 to the nearest thousand = 3000 (Z) · Round 69 to the nearest ten = 70 (D) · Round 939 to the nearest hundred = 900 (E) · Round 27 to the nearest ten = 30 (H) · Round 4,536 to the nearest thousand = 5000 (S) · Round 6,913 to the nearest thousand = 7000 (L) · Round 3,673 to the nearest hundred = 3700 (I) · Round 233 to the nearest ten = 230 (R) · Round 369 to the nearest ten = 370 (Y) · Round 8,542 to the nearest thousand = 9000 (N) · Round 740 to the nearest hundred = 700 (U) · Round 178 to the nearest hundred = 200 (M) · Round 460 to the nearest hundred = 500 (W) · Round 2,284 to the nearest hundred = 2300 (K) · Round 91 to the nearest ten = 90 (A) · Round 54 to the nearest ten = 50 (C) · Round 131 to the nearest ten = 130 (O)

Clue 2 (Addition): "THE CASTING SPARKS FLEW FROM THE RIGHT HAND"

$3889 + 2868 = 6757$ (T) · $965 + 1784 = 2749$ (H) · $3676 + 4763 = 8439$ (N) · $4590 + 2578 = 7168$ (P) · $1164 + 1570 = 2734$ (O) · $1837 + 1755 = 3592$ (E) · $858 + 1622 = 2480$ (G) · $1778 + 2601 = 4379$ (W) · $3854 + 3980 = 7834$ (D) · $1713 + 2117 = 3830$ (L) · $4639 + 3060 = 7699$ (C) · $4566 + 2896 = 7462$ (I) · $2404 + 3059 = 5463$ (K) · $4347 + 3310 = 7657$ (S) · $4992 + 2354 = 7346$ (M) · $5951 + 2790 = 8741$ (F) · $1067 + 1763 = 2830$ (R) · $3061 + 2631 = 5692$ (A)

Clue 3 (Subtraction): "THE WIZARD RAN AWAY FROM A TINY SPIDER"

$11087 - 2888 = 8199$ (T) · $8714 - 1132 = 7582$ (D) · $9236 - 3660 = 5576$ (F) · $7143 - 3436 = 3707$ (Z) · $8499 - 224 = 8275$ (S) · $2153 - 804 = 1349$ (H) · $6477 - 1364 = 5113$ (P) · $4227 - 3067 = 1160$ (N) · $3252 - 1245 = 2007$ (O) · $9845 - 4476 = 5369$ (R) · $2356 - 1211 = 1145$ (I) · $9049 - 1039 = 8010$ (Y) · $9070 - 4086 = 4984$ (A) · $6100 - 747 = 5353$ (M) · $13685 - 4987 = 8698$ (W) · $9072 - 3237 = 5835$ (E)

Clue 4 (Multiplication facts (1-12)): "WE FOUND MESSY BLACK HAIR ON THE SHELF"

$8 \times 12 = 96$ (W) · $1 \times 2 = 2$ (N) · $9 \times 8 = 72$ (B) · $6 \times 3 = 18$ (L) · $9 \times 9 = 81$ (M) · $5 \times 3 = 15$ (K) · $3 \times 9 = 27$ (I) · $9 \times 12 = 108$ (A) · $5 \times 5 = 25$ (F) · $1 \times 1 = 1$ (D) · $3 \times 11 = 33$ (U) · $10 \times 9 = 90$ (O) · $10 \times 12 = 120$ (T) · $11 \times 7 = 77$ (C) · $7 \times 7 = 49$ (S) · $12 \times 12 = 144$ (Y) · $2 \times 3 = 6$ (E) · $7 \times 4 = 28$ (H) · $2 \times 5 = 10$ (R)

Clue 5 (Division facts (1-12)): surviving statement is box 7 → Zacharias

$24 \div 8 = 3$ · $72 \div 12 = 6$ · $15 \div 3 = 5$ · $8 \div 4 = 2$ · $66 \div 6 = 11$ · $44 \div 11 = 4$ · $120 \div 10 = 12$ · $54 \div 6 = 9$ · $3 \div 3 = 1$ · $10 \div 1 = 10$ · $64 \div 8 = 8$