



The Case of the Slytherin Locket

Grade 5 math · Fractions of a number, Order of operations, Multiplication, Rounding, Division · Reading level grades 3-4

Detective: _____ Date: _____

A rogue Snatcher has snuck into our camp under the cover of night and stolen Slytherin's golden locket! We must search the misty forest and use our magic to track down the thief before they escape.

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 rogue Snatcher is _____

Possible suspects

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

NAME	SPELLS CAST	ENCHANTED GEAR	WAND HAND	HAIR COLOR	FEAR OF SPELL
Lupin	Protego	Deluminator	Right Handed	Fiery Ginger	Riddikulus Spell
Oliver	Expelliarmus	Sneakoscope	Right Handed	Raven Black	Patronus Charm
Cho	Protego	Extendable Ears	Left Handed	Fiery Ginger	Patronus Charm
Luna	Expelliarmus	Invisibility Cloak	Right Handed	Sandy Blonde	Patronus Charm
Fleur	Stupefy	Sneakoscope	Right Handed	Raven Black	Patronus Charm
Seamus	Diffindo	Deluminator	Right Handed	Raven Black	Riddikulus Spell
Neville	Confundo	Deluminator	Right Handed	Fiery Ginger	Patronus Charm
Molly	Diffindo	Invisibility Cloak	Right Handed	Raven Black	Patronus Charm
Xenophilius	Stupefy	Sneakoscope	Left Handed	Raven Black	Patronus Charm
Bill	Protego	Peruvian Instant Darkness Powder	Right Handed	Raven Black	Patronus Charm
Dean	Confundo	Deluminator	Right Handed	Fiery Ginger	Reductor Curse
George	Stupefy	Deluminator	Right Handed	Fiery Ginger	Riddikulus Spell
Hermione	Stupefy	Extendable Ears	Right Handed	Fiery Ginger	Patronus Charm
Aberforth	Diffindo	Sneakoscope	Right Handed	Fiery Ginger	Reductor Curse
Padma	Stupefy	Deluminator	Right Handed	Sandy Blonde	Reductor Curse
Parvati	Confundo	Invisibility Cloak	Right Handed	Fiery Ginger	Reductor Curse
Arthur	Protego	Sneakoscope	Right Handed	Raven Black	Riddikulus Spell
Kingsley	Protego	Extendable Ears	Right Handed	Raven Black	Riddikulus Spell
Percy	Stupefy	Deluminator	Right Handed	Raven Black	Patronus Charm
Ron	Diffindo	Invisibility Cloak	Right Handed	Raven Black	Riddikulus Spell
Ginny	Confundo	Peruvian Instant Darkness Powder	Left Handed	Raven Black	Patronus Charm

CLUE 1

Fractions of a number

We found a torn bag of Galleons on the forest floor. If we calculate the exact fraction of gold left inside, we can unlock the first secret memo about the thief.

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

A number line from 0 to 50 with increments of 5. The number 35 is highlighted in orange and labeled with a 'T'. The number 10 is highlighted in orange and labeled with a 'T'. The number 35 is highlighted in orange and labeled with a 'T'.

$1/5$ of 175 = $\rightarrow$ **T**

$\frac{1}{8}$ of 200 = $\rightarrow$ **U**

$1/2$ of 22 = $\rightarrow$ **F**

$4/6$ of $27 = \square \rightarrow \boxed{\text{I}}$

2/6 of 114 = → **L**

4/8 of 68 = → **N**

$$2/10 \text{ of } 115 = \boxed{} \rightarrow \boxed{\text{C}}$$

$$2/8 \text{ of } 148 = \boxed{} \rightarrow \boxed{\text{E}}$$

$3/6$ of $66 = \boxed{} \rightarrow \boxed{\text{Y}}$

2/6 of 57 = → **H**

$$\frac{1}{4} \text{ of } 80 = \boxed{} \rightarrow \boxed{\mathbf{M}}$$

$$\frac{1}{4} \text{ of } 120 = \boxed{} \rightarrow \boxed{\text{R}}$$

$\frac{1}{8}$ of 104 = $\rightarrow$ **S**

$2/8$ of 160 = $\rightarrow$ **D**

$\frac{1}{4}$ of 40 = $\rightarrow$

$6/8$ of $36 = \boxed{} \rightarrow \boxed{\mathbf{A}}$

Scratch space:

CLUE 2 Order of operations

The thief scrambled the magic locks on an old wooden trunk. Solve the multi-step spell equation in the correct order to open the lid and find the next clue.

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

T									T				T						
53	14	38	72	18	72	51	38	49	53	49	78	72	53	72	51	38	6	6	72
		T		T									T						
12	63	53	14	53	14	38	63	36	36	63	35	14	53	14	78	26	28		

$6 \times 10 - 7 = \square \rightarrow \boxed{\text{T}}$	$2 + 7 \times 7 = \square \rightarrow \boxed{\text{P}}$	$5 \times 4 - 6 = \square \rightarrow \boxed{\text{H}}$
$3 + 3 \times 3 = \square \rightarrow \boxed{\text{W}}$	$8 \times 6 - 22 = \square \rightarrow \boxed{\text{N}}$	$32 + 2 \times 3 = \square \rightarrow \boxed{\text{E}}$
$2 + 2 \times 8 = \square \rightarrow \boxed{\text{U}}$	$23 + 2 \times 6 = \square \rightarrow \boxed{\text{G}}$	$24 + 2 \times 6 = \square \rightarrow \boxed{\text{R}}$
$11 \times 9 - 27 = \square \rightarrow \boxed{\text{S}}$	$8 \times 10 - 17 = \square \rightarrow \boxed{\text{I}}$	$6 \times 10 - 11 = \square \rightarrow \boxed{\text{C}}$
$10 \times 5 - 22 = \square \rightarrow \boxed{\text{D}}$	$9 \times 10 - 12 = \square \rightarrow \boxed{\text{A}}$	$4 \times 4 - 10 = \square \rightarrow \boxed{\text{L}}$

Scratch space:

CLUE 3

Multiplication facts (1-12)

Hermione spots several rows of sleeping potions stacked neatly on a shelf. Counting the total bottles in these equal groups reveals the suspect's spell weakness.

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

T																	
50	108	35	25	121	80	80	60	121	90	56	60	90	60	20	60	16	
														T			
96	56	33	28	60	63	80	33	20	121	90	63	77	60	50	56	33	90
																	30
																	15

$5 \times 10 = \square \rightarrow \boxed{\text{T}}$

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

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

$8 \times 10 = \square \rightarrow \boxed{\text{L}}$

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

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

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

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

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

$3 \times 10 = \square \rightarrow \boxed{\text{U}}$

$7 \times 8 = \square \rightarrow \boxed{\text{R}}$

$7 \times 9 = \square \rightarrow \boxed{\text{G}}$

$11 \times 11 = \square \rightarrow \boxed{\text{I}}$

$2 \times 10 = \square \rightarrow \boxed{\text{W}}$

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

$6 \times 10 = \square \rightarrow \boxed{\text{A}}$

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

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

Scratch space:

CLUE 4 Rounding

Our Sneakoscope is spinning and buzzing! The magic detector only shows numbers rounded to the nearest ten, but it will help us identify the hair color we need.

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

W															
1300	300	500	290	3000	3700	20	200	70	2000	30	3700	20	200	290	500
2000	30	50	300	3700	2300	900	30	9000	4300	2900	30	110	2000		

Round 1,317 to the nearest hundred → **W**

Round 181 to the nearest hundred → **S**

Round 111 to the nearest ten → **I**

Round 3,151 to the nearest thousand → **U**

Round 1,848 to the nearest thousand → **R**

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

Round 52 to the nearest ten → **V**

Round 8,835 to the nearest thousand → **C**

Round 496 to the nearest hundred → **F**

Round 32 to the nearest ten → **A**

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

Round 2,270 to the nearest hundred → **B**

Round 291 to the nearest ten → **O**

Round 2,910 to the nearest hundred → **H**

Round 4,254 to the nearest hundred → **K**

Round 72 to the nearest ten → **T**

Round 23 to the nearest ten → **D**

Round 3,700 to the nearest hundred → **N**

Scratch space:

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

We need to share our remaining supply of Gillyweed equally among the search party. Doing the math correctly points us directly to the hand the thief uses to cast magic.

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:

$15 \div 3 = \boxed{}$

$6 \div 3 = \boxed{}$

$70 \div 7 = \boxed{}$

$8 \div 2 = \boxed{}$

$44 \div 4 = \boxed{}$

$108 \div 9 = \boxed{}$

$36 \div 4 = \boxed{}$

$56 \div 8 = \boxed{}$

$64 \div 8 = \boxed{}$

$15 \div 5 = \boxed{}$

$48 \div 8 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain fired a red stunning spell, then spun a spinning sneakoscope.
2. The villain sliced open the tent wall, then vanished under an invisibility cloak.
3. The villain sliced open the tent wall, then clicked a dark deluminator.
4. The villain fired a red stunning spell, then clicked a dark deluminator.
5. The villain blasted a disarming charm, then spun a spinning sneakoscope.
6. The villain fired a red stunning spell, then dropped some long extendable ears.
7. The villain sliced open the tent wall, then threw down pitch black darkness powder.
8. The villain blasted a disarming charm, then dropped some long extendable ears.
9. The villain confused the camp guard, then clicked a dark deluminator.
10. The villain raised a shimmering shield, then threw down pitch black darkness powder.
11. The villain raised a shimmering shield, then spun a spinning sneakoscope.
12. The villain fired a red stunning spell, then vanished under an invisibility cloak.

Answer Key

The Case of the Slytherin Locket

Culprit: Fleur

Stupefy · Sneakoscope · Right Handed · Raven Black · Patronus Charm

Trail: Start 21 → Clue 1 14 → Clue 2 11 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Fractions of a number): "THE THIEF DOES NOT CARRY A DELUMINATOR"

$\frac{1}{5}$ of 175 = 35 (T) · $\frac{1}{8}$ of 200 = 25 (U) · $\frac{1}{2}$ of 22 = 11 (F) · $\frac{4}{6}$ of 27 = 18 (I) · $\frac{2}{6}$ of 114 = 38 (L) · $\frac{4}{8}$ of 68 = 34 (N) · $\frac{2}{10}$ of 115 = 23 (C) · $\frac{2}{8}$ of 148 = 37 (E) · $\frac{3}{6}$ of 66 = 33 (Y) · $\frac{2}{6}$ of 57 = 19 (H) · $\frac{1}{4}$ of 80 = 20 (M) · $\frac{1}{4}$ of 120 = 30 (R) · $\frac{1}{8}$ of 104 = 13 (S) · $\frac{2}{8}$ of 160 = 40 (D) · $\frac{1}{4}$ of 40 = 10 (O) · $\frac{6}{8}$ of 36 = 27 (A)

Clue 2 (Order of operations): "THE SUSPECT CAST SPELLS WITH THEIR RIGHT HAND"

$6 \times 10 - 7 = 53$ (T) · $2 + 7 \times 7 = 51$ (P) · $5 \times 4 - 6 = 14$ (H) · $3 + 3 \times 3 = 12$ (W) · $8 \times 6 - 22 = 26$ (N) · $32 + 2 \times 3 = 38$ (E) · $2 + 2 \times 8 = 18$ (U) · $23 + 2 \times 6 = 35$ (G) · $24 + 2 \times 6 = 36$ (R) · $11 \times 9 - 27 = 72$ (S) · $8 \times 10 - 17 = 63$ (I) · $6 \times 10 - 11 = 49$ (C) · $10 \times 5 - 22 = 28$ (D) · $9 \times 10 - 12 = 78$ (A) · $4 \times 4 - 10 = 6$ (L)

Clue 3 (Multiplication facts (1-12)): "THE VILLAIN RAN AWAY FROM A GLOWING PATRONUS"

$5 \times 10 = 50$ (T) · $7 \times 5 = 35$ (E) · $12 \times 9 = 108$ (H) · $8 \times 10 = 80$ (L) · $7 \times 11 = 77$ (P) · $8 \times 2 = 16$ (Y) · $5 \times 5 = 25$ (V) · $10 \times 9 = 90$ (N) · $8 \times 12 = 96$ (F) · $3 \times 10 = 30$ (U) · $7 \times 8 = 56$ (R) · $7 \times 9 = 63$ (G) · $11 \times 11 = 121$ (I) · $2 \times 10 = 20$ (W) · $5 \times 3 = 15$ (S) · $6 \times 10 = 60$ (A) · $4 \times 7 = 28$ (M) · $11 \times 3 = 33$ (O)

Clue 4 (Rounding): "WE FOUND STRANDS OF RAVEN BLACK HAIR"

Round 1,317 to the nearest hundred = 1300 (W) · Round 181 to the nearest hundred = 200 (S) · Round 111 to the nearest ten = 110 (I) · Round 3,151 to the nearest thousand = 3000 (U) · Round 1,848 to the nearest thousand = 2000 (R) · Round 859 to the nearest hundred = 900 (L) · Round 52 to the nearest ten = 50 (V) · Round 8,835 to the nearest thousand = 9000 (C) · Round 496 to the nearest hundred = 500 (F) · Round 32 to the nearest ten = 30 (A) · Round 314 to the nearest hundred = 300 (E) · Round 2,270 to the nearest hundred = 2300 (B) · Round 291 to the nearest ten = 290 (O) · Round 2,910 to the nearest hundred = 2900 (H) · Round 4,254 to the nearest hundred = 4300 (K) · Round 72 to the nearest ten = 70 (T) · Round 23 to the nearest ten = 20 (D) · Round 3,700 to the nearest hundred = 3700 (N)

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

$15 \div 3 = 5$ · $6 \div 3 = 2$ · $70 \div 7 = 10$ · $8 \div 2 = 4$ · $44 \div 4 = 11$ · $108 \div 9 = 12$ · $36 \div 4 = 9$ · $56 \div 8 = 7$ · $64 \div 8 = 8$ · $15 \div 5 = 3$ · $48 \div 8 = 6$