



The Case of the Missing Ledger

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

Detective: _____ Date: _____

A secret ledger has been stolen from Detective Academy HQ! The Chief Inspector needs your sharp detective skills to analyze the clues and catch the culprit 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 Sleuth is _____

Possible suspects

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

NAME	SPECIALIST SKILL	GADGET	HANDEDNESS	DISGUISE HAIR	FOILED BY
Enola	Tracking Prints	Voice Changer	Right Handed	Brown Wig	Squeaky Shoes
Avery	Disguise Mastery	Night Vision Goggles	Left Handed	Brown Wig	Squeaky Shoes
Parker	Eavesdropping	Voice Changer	Right Handed	Brown Wig	Dust Allergy
Mason	Disguise Mastery	Night Vision Goggles	Left Handed	Brown Wig	Dust Allergy
Cadet Max	Eavesdropping	Voice Changer	Right Handed	Brown Wig	Squeaky Shoes
Poirot	Deciphering Codes	Grappling Hook	Right Handed	Blonde Wig	Bright Flashlight
Sherlock	Deciphering Codes	Night Vision Goggles	Right Handed	Black Wig	Squeaky Shoes
Dupin	Lockpicking	Secret Camera	Left Handed	Brown Wig	Squeaky Shoes
Officer Leo	Eavesdropping	Voice Changer	Left Handed	Brown Wig	Squeaky Shoes
Nancy	Deciphering Codes	Voice Changer	Left Handed	Brown Wig	Dust Allergy
Marple	Disguise Mastery	Voice Changer	Left Handed	Black Wig	Dust Allergy
Detective Maya	Disguise Mastery	Night Vision Goggles	Right Handed	Black Wig	Bright Flashlight
Gadget	Lockpicking	Voice Changer	Left Handed	Blonde Wig	Squeaky Shoes
Marlowe	Tracking Prints	Secret Camera	Right Handed	Brown Wig	Dust Allergy
Inspector Rose	Eavesdropping	Night Vision Goggles	Right Handed	Blonde Wig	Squeaky Shoes
Agent Maya	Lockpicking	Grappling Hook	Left Handed	Blonde Wig	Dust Allergy
Owen	Eavesdropping	Night Vision Goggles	Left Handed	Blonde Wig	Dust Allergy
Hardy	Tracking Prints	Night Vision Goggles	Left Handed	Brown Wig	Squeaky Shoes
Spade	Tracking Prints	Invisible Ink	Left Handed	Brown Wig	Squeaky Shoes
Sleuth Sam	Lockpicking	Voice Changer	Left Handed	Black Wig	Bright Flashlight
Wolfe	Eavesdropping	Night Vision Goggles	Right Handed	Black Wig	Dust Allergy

CLUE 1 Multiplication facts (1-12)

You find evidence crates stacked in equal rows inside the evidence locker. Count the rows to uncover a hint.

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

A 2x6 grid of boxes. The top row contains the numbers 18, 72, 108, 90, 80, 90, 132, 108, 63, 18, 84, 33, 108, 90, 49, 33, 18. The bottom row contains the numbers 80, 90, 108, 70, 90, 108, 63, 14, 108, 18, 63, 70, 22, 108, 14, 70. The box containing the number 18 in the top row, 10th column from the left, is highlighted in orange and contains the letter 'T'.

$9 \times 2 = \boxed{} \rightarrow \boxed{\text{T}}$

$11 \times 2 = \boxed{} \rightarrow \boxed{\mathbf{M}}$

$12 \times 9 = \boxed{} \rightarrow \boxed{\text{E}}$

$12 \times 7 = \boxed{} \rightarrow \boxed{\text{D}}$

$$8 \times 9 = \boxed{} \rightarrow \boxed{\text{H}}$$

$10 \times 7 = \boxed{} \rightarrow \boxed{\text{A}}$

$$2 \times 7 = \boxed{} \rightarrow \boxed{\mathbf{R}}$$

$$8 \times 10 = \boxed{} \rightarrow \boxed{\mathbf{U}}$$

$$3 \times 11 = \boxed{} \rightarrow \boxed{0}$$

$12 \times 11 = \boxed{} \rightarrow \boxed{\text{P}}$

$$7 \times 7 = \boxed{} \rightarrow \boxed{\text{N}}$$

$10 \times 9 = \boxed{} \rightarrow \boxed{\mathbf{S}}$

$9 \times 7 = \boxed{} \rightarrow \boxed{\text{C}}$

Scratch space:

CLUE 2 Place value

You check the digit keypad on the vault wall to reveal the place value of the code.

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

A						A											A	
900	9000	7000	300	200	4000	900	3000	60	7000	60	400	40	10	3000	200	20	900	6000
											A							
9000	7000	300	200	600	3000	200	4000	7000	6000	900	300	7000						

What is the value of the 9 in 977?

→

A

What is the value of the 6 in 8,675?

→

O

What is the value of the 9 in 19,052?

→

L

What is the value of the 6 in 6,285?

→

S

What is the value of the 3 in 359?

→

F

What is the value of the 4 in 9,456?

→

P

What is the value of the 6 in 1,169?

→

D

What is the value of the 2 in 8,425?

→

W

What is the value of the 4 in 24,681?

→

H

What is the value of the 1 in 919?

→

I

What is the value of the 2 in 9,249?

→

T

What is the value of the 4 in 242?

→

R

What is the value of the 7 in 67,816?

→

E

What is the value of the 3 in 43,975?

→

N

Scratch space:

CLUE 3 Addition

You add up all the dropped clues collected from the crime scene footprint grid.

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

S							S				S						
947	861	922	839	795	741	227	947	942	224	839	947	839	870	942	224	839	744
744	224	307	693	291	942	839	942	795	864	864	307	795	227				

$338 + 609 = \square \rightarrow \text{S}$	$473 + 322 = \square \rightarrow \text{A}$	$288 + 453 = \square \rightarrow \text{K}$
$297 + 573 = \square \rightarrow \text{C}$	$498 + 363 = \square \rightarrow \text{Q}$	$198 + 109 = \square \rightarrow \text{W}$
$121 + 170 = \square \rightarrow \text{T}$	$301 + 563 = \square \rightarrow \text{L}$	$107 + 117 = \square \rightarrow \text{O}$
$110 + 117 = \square \rightarrow \text{Y}$	$208 + 485 = \square \rightarrow \text{N}$	$436 + 308 = \square \rightarrow \text{D}$
$573 + 266 = \square \rightarrow \text{E}$	$464 + 478 = \square \rightarrow \text{H}$	$367 + 555 = \square \rightarrow \text{U}$

Scratch space:

CLUE 4
Rounding

The digital radar scanner only shows an estimated rounded signal strength.

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

B																		
500	9000	40	800	2000	700	600	900	9000	800	600	4000	4000	2000	600	300	300	60	5000

40	2000	6000	700	60	5000	40	40	9000	200	600	6000	8000	700

Round 481 to the nearest hundred → **B**

Round 9,484 to the nearest thousand → **R**

Round 5,922 to the nearest thousand → **T**

Round 3,627 to the nearest thousand → **S**

Round 602 to the nearest hundred → **A**

Round 63 to the nearest ten → **E**

Round 264 to the nearest hundred → **G**

Round 782 to the nearest hundred → **W**

Round 5,413 to the nearest thousand → **D**

Round 935 to the nearest hundred → **I**

Round 40 to the nearest ten → **O**

Round 151 to the nearest hundred → **L**

Round 7,860 to the nearest thousand → **C**

Round 2,334 to the nearest thousand → **N**

Round 658 to the nearest hundred → **H**

Scratch space:

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

You know the total number of missing files and must figure out the missing piece.

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:

$10 + \underline{\quad} = 22$

$4 + \underline{\quad} = 15$

$1 + \underline{\quad} = 10$

$7 + \underline{\quad} = 15$

$8 + \underline{\quad} = 15$

$9 + \underline{\quad} = 11$

$4 + \underline{\quad} = 9$

$7 + \underline{\quad} = 8$

$4 + \underline{\quad} = 10$

$4 + \underline{\quad} = 8$

$7 + \underline{\quad} = 17$

Step 2 - cross out the sentence with each answer:

1. The villain tracked prints across the courtyard, then snapped photos with a secret camera.
2. The villain picked the lock to the vault, then tricked the guard with a voice changer.
3. The villain tracked prints across the courtyard, then escaped using night vision goggles.
4. The villain disguised as a junior officer, then left a note in invisible ink.
5. The villain picked the lock to the vault, then left a note in invisible ink.
6. The villain disguised as a junior officer, then tricked the guard with a voice changer.
7. The villain deciphered codes in the ledger, then swung off the roof with a grappling hook.
8. The villain tracked prints across the courtyard, then swung off the roof with a grappling hook.
9. The villain eavesdropped on the secret meeting, then tricked the guard with a voice changer.
10. The villain eavesdropped on the secret meeting, then snapped photos with a secret camera.
11. The villain tracked prints across the courtyard, then left a note in invisible ink.
12. The villain disguised as a junior officer, then escaped using night vision goggles.

Answer Key

The Case of the Missing Ledger

Culprit: Hardy

Tracking Prints · Night Vision Goggles · Left Handed · Brown Wig · Squeaky Shoes

Trail: Start 21 → Clue 1 19 → Clue 2 11 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE SUSPECT DOES NOT USE A SECRET CAMERA"

$9 \times 2 = 18$ (T) · $11 \times 2 = 22$ (M) · $12 \times 9 = 108$ (E) · $12 \times 7 = 84$ (D) · $8 \times 9 = 72$ (H) · $10 \times 7 = 70$ (A) · $2 \times 7 = 14$ (R) · $8 \times 10 = 80$ (U) · $3 \times 11 = 33$ (O) · $12 \times 11 = 132$ (P) · $7 \times 7 = 49$ (N) · $10 \times 9 = 90$ (S) · $9 \times 7 = 63$ (C)

Clue 2 (Place value): "A LEFT HANDED PRINT WAS LEFT ON THE SAFE"

What is the value of the 9 in 977? = 900 (A) · What is the value of the 6 in 8,675? = 600 (O) · What is the value of the 9 in 19,052? = 9000 (L) · What is the value of the 6 in 6,285? = 6000 (S) · What is the value of the 3 in 359? = 300 (F) · What is the value of the 4 in 9,456? = 400 (P) · What is the value of the 6 in 1,169? = 60 (D) · What is the value of the 2 in 8,425? = 20 (W) · What is the value of the 4 in 24,681? = 4000 (H) · What is the value of the 1 in 919? = 10 (I) · What is the value of the 2 in 9,249? = 200 (T) · What is the value of the 4 in 242? = 40 (R) · What is the value of the 7 in 67,816? = 7000 (E) · What is the value of the 3 in 43,975? = 3000 (N)

Clue 3 (Addition): "SQUEAKY SHOES ECHOED DOWN THE HALLWAY"

$338 + 609 = 947$ (S) · $473 + 322 = 795$ (A) · $288 + 453 = 741$ (K) · $297 + 573 = 870$ (C) · $498 + 363 = 861$ (Q) · $198 + 109 = 307$ (W) · $121 + 170 = 291$ (T) · $301 + 563 = 864$ (L) · $107 + 117 = 224$ (O) · $110 + 117 = 227$ (Y) · $208 + 485 = 693$ (N) · $436 + 308 = 744$ (D) · $573 + 266 = 839$ (E) · $464 + 478 = 942$ (H) · $367 + 555 = 922$ (U)

Clue 4 (Rounding): "BROWN HAIR WAS SNAGGED ON THE DOOR LATCH"

Round 481 to the nearest hundred = 500 (B) · Round 9,484 to the nearest thousand = 9000 (R) · Round 5,922 to the nearest thousand = 6000 (T) · Round 3,627 to the nearest thousand = 4000 (S) · Round 602 to the nearest hundred = 600 (A) · Round 63 to the nearest ten = 60 (E) · Round 264 to the nearest hundred = 300 (G) · Round 782 to the nearest hundred = 800 (W) · Round 5,413 to the nearest thousand = 5000 (D) · Round 935 to the nearest hundred = 900 (I) · Round 40 to the nearest ten = 40 (O) · Round 151 to the nearest hundred = 200 (L) · Round 7,860 to the nearest thousand = 8000 (C) · Round 2,334 to the nearest thousand = 2000 (N) · Round 658 to the nearest hundred = 700 (H)

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

$10 + \underline{\quad} = 22 = 12$ · $4 + \underline{\quad} = 15 = 11$ · $1 + \underline{\quad} = 10 = 9$ · $7 + \underline{\quad} = 15 = 8$ · $8 + \underline{\quad} = 15 = 7$ · $9 + \underline{\quad} = 11 = 2$ · $4 + \underline{\quad} = 9 = 5$ · $7 + \underline{\quad} = 8 = 1$ · $4 + \underline{\quad} = 10 = 6$ · $4 + \underline{\quad} = 8 = 4$ · $7 + \underline{\quad} = 17 = 10$