



The Mystery of the Missing Atlas

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

Detective: _____ Date: _____

The Golden Atlas, the most magical book in the library, has vanished from its pedestal! A sneaky Book Thief snatched it and ran into the maze of bookshelves. We need to crack the clues and catch the thief before the library closes!

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 Book Thief is _____

Possible suspects

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

NAME	MAGIC LIBRARY SKILL	ESCAPE TOOL	EYE GEAR	HAIR STYLE	LOUD SOUND OR TRICK
Sherlock	sticky bookmarks	decoy book	wears glasses	blue hair	sneezing powder
Nancy	sticky bookmarks	glider cape	wears glasses	blue hair	sneezing powder
Pippi	flying boots	decoy book	wears glasses	curly brown hair	bright flashlight
Violet	silence charm	decoy book	wears glasses	spiky green hair	bright flashlight
Aslan	magnifying glass	glider cape	wears glasses	spiky green hair	bright flashlight
Wendy	sticky bookmarks	decoy book	wears glasses	spiky green hair	bright flashlight
Dorothy	magnifying glass	grappling hook	wears glasses	curly brown hair	sneezing powder
Arthur	ink spray	smoke bomb	no glasses	curly brown hair	bright flashlight
Hermione	flying boots	smoke bomb	no glasses	blue hair	sneezing powder
Meg	silence charm	smoke bomb	wears glasses	blue hair	sneezing powder
Matilda	magnifying glass	grappling hook	no glasses	spiky green hair	sneezing powder
Milo	magnifying glass	glider cape	wears glasses	spiky green hair	sneezing powder
Percy	sticky bookmarks	smoke bomb	wears glasses	curly brown hair	sneezing powder
Katniss	ink spray	grappling hook	no glasses	blue hair	sneezing powder
Frodo	flying boots	glider cape	wears glasses	blue hair	bright flashlight
Peter	sticky bookmarks	glider cape	no glasses	spiky green hair	loud whistle
Augustus	silence charm	grappling hook	no glasses	spiky green hair	bright flashlight
Charlotte	magnifying glass	magic flashlight	wears glasses	blue hair	sneezing powder
Huckleberry	magnifying glass	glider cape	wears glasses	blue hair	loud whistle
Bilbo	ink spray	glider cape	wears glasses	blue hair	sneezing powder
Alice	magnifying glass	magic flashlight	no glasses	curly brown hair	bright flashlight

CLUE 1 Place value

We check the digital room lock on the library vault. The keypad displays a code, but some of the digit places are blank! Solve this place value puzzle to unlock the door and get our first clue.

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

T			T																
8000	40	1000	8000	40	700	1000	3000	500	90	1000	5000	70	90	8000	50	5000	1000	100	
60	100	2000	700	600	3000	9000	100	5000	40	9000	700	2000	40	8000					

What is the value of the 8 in 28,501? → **T**

What is the value of the 1 in 5,143? → **A**

What is the value of the 5 in 6,057? → **U**

What is the value of the 5 in 5,129? → **S**

What is the value of the 2 in 2,496? → **G**

What is the value of the 6 in 2,628? → **C**

What is the value of the 4 in 5,343? → **H**

What is the value of the 3 in 93,102? → **F**

What is the value of the 6 in 167? → **M**

What is the value of the 5 in 6,523? → **D**

What is the value of the 7 in 746? → **I**

What is the value of the 1 in 81,609? → **E**

What is the value of the 7 in 3,079? → **N**

What is the value of the 9 in 9,531? → **L**

What is the value of the 9 in 294? → **O**

Scratch space:

CLUE 2

The suspect dropped several piles of library cards as they ran. Let's add up all the dropped cards to find out which aisle they ran down!

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

4533 2861 4616 3844 7301 7520 4476 7520 3896 5336 2861 4533 5336 3964 7520 7301 3896 3844 4744

4744 8843 7520 4184 4184 3964 4184 7520 8595 8595 4109 3964 4184 9297 3964 3844 3964

$$2836 + 1697 = \boxed{} \rightarrow \boxed{\text{F}}$$

$2009 + 1887 = \square \rightarrow \boxed{\text{I}}$

$$2153 + 1956 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$2975 + 6322 = \boxed{} \rightarrow \boxed{\text{C}}$$

$$2037 + 3299 = \boxed{} \rightarrow \boxed{\text{R}}$$

$2238 + 2506 = \boxed{} \rightarrow \boxed{\text{G}}$

$$2079 + 2105 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$4172 + 3129 = \boxed{} \rightarrow \boxed{\text{D}}$$

$$3085 + 5758 = \boxed{} \rightarrow \boxed{\text{L}}$$

$$2841 + 1635 = \boxed{} \rightarrow \boxed{\text{P}}$$

$$1409 + 2555 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$1704 + 1157 = \boxed{} \rightarrow \boxed{0}$$

$$3135 + 1481 = \boxed{} \rightarrow \boxed{\text{U}}$$

$$2572 + 4948 = \boxed{} \rightarrow \boxed{\text{A}}$$

$$1753 + 2091 = \boxed{} \rightarrow \boxed{\text{N}}$$

$$3298 + 5297 = \boxed{} \rightarrow \boxed{\text{T}}$$

Scratch space:

CLUE 3

Subtraction

To get past the secret bookshelf door, we must compare the heights of two massive encyclopedias. Find the difference in their heights to open the passage.

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

T																
8680	5530	4477	8792	7774	8792	8992	4477	8826	8680	8792	1456	4477	4477	7840	4477	1232
1268	5530	4477	1456	8992	4477	8992	8992	4477	6316	1268	4569	8792				

$9534 - 854 = \square \rightarrow \text{T}$

$2964 - 1696 = \square \rightarrow \text{W}$

$6500 - 970 = \square \rightarrow \text{H}$

$12668 - 3676 = \square \rightarrow \text{P}$

$8118 - 2782 = \square \rightarrow \text{O}$

$12462 - 3636 = \square \rightarrow \text{C}$

$5276 - 4044 = \square \rightarrow \text{D}$

$6964 - 2487 = \square \rightarrow \text{E}$

$9322 - 4753 = \square \rightarrow \text{A}$

$11567 - 3793 = \square \rightarrow \text{U}$

$11437 - 2645 = \square \rightarrow \text{S}$

$8745 - 2429 = \square \rightarrow \text{R}$

$10942 - 3102 = \square \rightarrow \text{Z}$

$5003 - 3547 = \square \rightarrow \text{N}$

Scratch space:

Multiplication facts (1-12)

We find a clue hidden in the study desks! The desks are lined up in perfect rows. Multiply the rows and columns to find the exact desk number.

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

A number line from 0 to 150 with boxes for numbers and their prime factors.

Number	Prime Factors
1	W
14	
63	
54	
56	
72	
9	
99	
100	
88	
12	
8	
28	
6	
100	
144	
56	
14	

60	6	88	99	72	9	54	63	28	99	12	88

$$1 \times 1 = \boxed{} \rightarrow \boxed{\mathbf{W}}$$

$$12 \times 12 = \boxed{} \rightarrow \boxed{\text{L}}$$

$2 \times 4 = \square \rightarrow \boxed{\mathbf{G}}$

$2 \times 7 = \boxed{} \rightarrow \boxed{\text{E}}$

$9 \times 6 =$ $\rightarrow$ **0**

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

$11 \times 9 = \boxed{} \rightarrow \boxed{\text{A}}$

$$2 \times 3 = \boxed{} \rightarrow \boxed{\text{T}}$$

$12 \times 5 = \boxed{} \rightarrow \boxed{\mathbf{S}}$

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

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

$7 \times 8 = \boxed{} \rightarrow \boxed{\text{U}}$

$10 \times 10 = \boxed{} \rightarrow \boxed{\mathbf{B}}$

$12 \times 1 = \boxed{} \rightarrow \boxed{1}$

$8 \times 11 = \boxed{} \rightarrow \boxed{\text{R}}$

$9 \times 1 = \boxed{} \rightarrow \boxed{\text{D}}$

Scratch space:

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

A box of mystery bookmarks was left behind! If we share them equally among our detective helpers, we can read the final clue left on the last bookmark.

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:

$6 \div 1 = \boxed{}$

$42 \div 6 = \boxed{}$

$99 \div 11 = \boxed{}$

$16 \div 8 = \boxed{}$

$120 \div 10 = \boxed{}$

$8 \div 8 = \boxed{}$

$60 \div 12 = \boxed{}$

$32 \div 8 = \boxed{}$

$3 \div 1 = \boxed{}$

$120 \div 12 = \boxed{}$

$48 \div 6 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain casts a silence charm on the room, then leaps off the balcony with a glider cape.
2. The villain uses a magnifying glass to read clues, then leaps off the balcony with a glider cape.
3. The villain casts a silence charm on the room, then drops a heavy decoy book to escape.
4. The villain uses a magnifying glass to read clues, then lights up the dark hallway with a flashlight.
5. The villain zooms past the shelves in flying boots, then swings out the window with a grappling hook.
6. The villain sprays dark ink on the library cameras, then leaps off the balcony with a glider cape.
7. The villain throws sticky bookmarks on the floor, then leaps off the balcony with a glider cape.
8. The villain uses a magnifying glass to read clues, then swings out the window with a grappling hook.
9. The villain throws sticky bookmarks on the floor, then drops a heavy decoy book to escape.
10. The villain zooms past the shelves in flying boots, then drops a heavy decoy book to escape.
11. The villain casts a silence charm on the room, then escapes in a cloud of smoke.
12. The villain sprays dark ink on the library cameras, then drops a heavy decoy book to escape.

Answer Key

The Mystery of the Missing Atlas

Culprit: Meg

silence charm · smoke bomb · wears glasses · blue hair · sneezing powder

Trail: Start 21 → Clue 1 19 → Clue 2 13 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE THIEF DOES NOT USE A MAGIC FLASHLIGHT"

What is the value of the 8 in 28,501? = 8000 (T) · What is the value of the 1 in 5,143? = 100 (A) · What is the value of the 5 in 6,057? = 50 (U) · What is the value of the 5 in 5,129? = 5000 (S) · What is the value of the 2 in 2,496? = 2000 (G) · What is the value of the 6 in 2,628? = 600 (C) · What is the value of the 4 in 5,343? = 40 (H) · What is the value of the 3 in 93,102? = 3000 (F) · What is the value of the 6 in 167? = 60 (M) · What is the value of the 5 in 6,523? = 500 (D) · What is the value of the 7 in 746? = 700 (I) · What is the value of the 1 in 81,609? = 1000 (E) · What is the value of the 7 in 3,079? = 70 (N) · What is the value of the 9 in 9,531? = 9000 (L) · What is the value of the 9 in 294? = 90 (O)

Clue 2 (Addition): "FOUND A PAIR OF READING GLASSES AT THE SCENE"

2836 + 1697 = 4533 (F) · 2009 + 1887 = 3896 (I) · 2153 + 1956 = 4109 (H) · 2975 + 6322 = 9297 (C) · 2037 + 3299 = 5336 (R) · 2238 + 2506 = 4744 (G) · 2079 + 2105 = 4184 (S) · 4172 + 3129 = 7301 (D) · 3085 + 5758 = 8843 (L) · 2841 + 1635 = 4476 (P) · 1409 + 2555 = 3964 (E) · 1704 + 1157 = 2861 (O) · 3135 + 1481 = 4616 (U) · 2572 + 4948 = 7520 (A) · 1753 + 2091 = 3844 (N) · 3298 + 5297 = 8595 (T)

Clue 3 (Subtraction): "THE SUSPECT SNEEZED WHEN PEPPER WAS THROWN"

9534 - 854 = 8680 (T) · 2964 - 1696 = 1268 (W) · 6500 - 970 = 5530 (H) · 12668 - 3676 = 8992 (P) · 8118 - 2782 = 5336 (O) · 12462 - 3636 = 8826 (C) · 5276 - 4044 = 1232 (D) · 6964 - 2487 = 4477 (E) · 9322 - 4753 = 4569 (A) · 11567 - 3793 = 7774 (U) · 11437 - 2645 = 8792 (S) · 8745 - 2429 = 6316 (R) · 10942 - 3102 = 7840 (Z) · 5003 - 3547 = 1456 (N)

Clue 4 (Multiplication facts (1-12)): "WE FOUND A BRIGHT BLUE STRAND OF HAIR"

$1 \times 1 = 1$ (W) · $12 \times 12 = 144$ (L) · $2 \times 4 = 8$ (G) · $2 \times 7 = 14$ (E) · $9 \times 6 = 54$ (O) · $9 \times 7 = 63$ (F) · $11 \times 9 = 99$ (A) · $2 \times 3 = 6$ (T) · $12 \times 5 = 60$ (S) · $8 \times 9 = 72$ (N) · $7 \times 4 = 28$ (H) · $7 \times 8 = 56$ (U) · $10 \times 10 = 100$ (B) · $12 \times 1 = 12$ (I) · $8 \times 11 = 88$ (R) · $9 \times 1 = 9$ (D)

Clue 5 (Division facts (1-12)): surviving statement is box 11 → Meg

$6 \div 1 = 6$ · $42 \div 6 = 7$ · $99 \div 11 = 9$ · $16 \div 8 = 2$ · $120 \div 10 = 12$ · $8 \div 8 = 1$ · $60 \div 12 = 5$ · $32 \div 8 = 4$ · $3 \div 1 = 3$ · $120 \div 12 = 10$ · $48 \div 6 = 8$