



The Mystery of the Missing Telescope

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

Detective: _____ Date: _____

The shiny Golden Telescope is missing from the Camp Oakwood lookout tower! Someone took it right before the big stargazing night. We need to follow the trail and find out who did it.

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 thief is _____

Possible suspects

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

NAME	ADVENTURE SKILL	SECRET TOOL	WRITING HAND	HAIR STYLE	GREATEST FEAR
Ethan	Kayak Paddling	Night Vision Goggles	Right-Handed	Spiky Hair	Fear of Heights
Maya	Map Reading	Laser Pointer	Right-Handed	Ponytail	Fear of Spiders
Max	Campfire Cooking	Laser Pointer	Right-Handed	Ponytail	Fear of Heights
Emma	Map Reading	Decoder Ring	Right-Handed	Curly Hair	Fear of Heights
Noah	Rope Climbing	Pocket Compass	Right-Handed	Curly Hair	Fear of Heights
Ben	Campfire Cooking	Night Vision Goggles	Right-Handed	Ponytail	Fear of Spiders
Mia	Ruins Exploring	Pocket Compass	Left-Handed	Ponytail	Fear of Spiders
Ruby	Rope Climbing	Laser Pointer	Right-Handed	Spiky Hair	Fear of Spiders
Luke	Campfire Cooking	Laser Pointer	Right-Handed	Curly Hair	Fear of Spiders
Sophia	Ruins Exploring	Decoder Ring	Right-Handed	Ponytail	Fear of Spiders
Grace	Ruins Exploring	Night Vision Goggles	Left-Handed	Curly Hair	Fear of Spiders
Eli	Ruins Exploring	Decoder Ring	Left-Handed	Curly Hair	Fear of Mud
Jack	Ruins Exploring	Night Vision Goggles	Right-Handed	Spiky Hair	Fear of Heights
Harper	Kayak Paddling	Decoder Ring	Right-Handed	Spiky Hair	Fear of Spiders
Mason	Campfire Cooking	Pocket Compass	Right-Handed	Ponytail	Fear of Spiders
Logan	Rope Climbing	Grappling Hook	Left-Handed	Spiky Hair	Fear of Heights
Ava	Campfire Cooking	Pocket Compass	Right-Handed	Ponytail	Fear of Heights
Owen	Rope Climbing	Decoder Ring	Left-Handed	Spiky Hair	Fear of Heights
Zoe	Campfire Cooking	Laser Pointer	Right-Handed	Ponytail	Fear of Spiders
Leo	Ruins Exploring	Decoder Ring	Left-Handed	Spiky Hair	Fear of Spiders
Chloe	Map Reading	Grappling Hook	Left-Handed	Ponytail	Fear of Spiders

CLUE 1 Rounding

We found a broken digital tracker near the tower. The screen is cracked, so it only displays distances that are rounded to the nearest ten.

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

T			T											T			
130	1700	2300	130	1700	700	2300	5000	70	290	2300	1100	90	290	130	200	1100	2300
				T													
90	700	3700	1700	130	2900	700	1100	700	290	90	3700	290	3700	3700	170	2300	1100

Round 128 to the nearest ten → **T**

Round 4,711 to the nearest thousand → **F**

Round 87 to the nearest ten → **N**

Round 688 to the nearest hundred → **I**

Round 1,108 to the nearest hundred → **S**

Round 1,736 to the nearest hundred → **H**

Round 2,276 to the nearest hundred → **E**

Round 2,863 to the nearest hundred → **V**

Round 170 to the nearest ten → **L**

Round 288 to the nearest ten → **O**

Round 70 to the nearest ten → **D**

Round 173 to the nearest hundred → **U**

Round 3,696 to the nearest hundred → **G**

Scratch space:

CLUE 2 Addition

The junior rangers gathered all the scrap paper left at the scene. We must add up the pieces to find our next direction.

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

T																	
5806	5872	9160	9735	6665	9735	2993	9160	4885	5806	4788	9800	3901	2993	2993	9160	4788	6187

9800	6232	3234	5872	5806	5872	6187	2391	4788	9160	4788	3234	7152	3901	7415	9160

$3621 + 2185 = \square \rightarrow \text{T}$	$2987 + 3245 = \square \rightarrow \text{I}$	$750 + 1641 = \square \rightarrow \text{N}$
$6696 + 3039 = \square \rightarrow \text{S}$	$1517 + 2384 = \square \rightarrow \text{O}$	$2760 + 4392 = \square \rightarrow \text{L}$
$3540 + 3875 = \square \rightarrow \text{V}$	$6155 + 3005 = \square \rightarrow \text{E}$	$2088 + 905 = \square \rightarrow \text{P}$
$2961 + 3704 = \square \rightarrow \text{U}$	$2532 + 3340 = \square \rightarrow \text{H}$	$988 + 2246 = \square \rightarrow \text{G}$
$2123 + 4064 = \square \rightarrow \text{A}$	$2893 + 1895 = \square \rightarrow \text{D}$	$2267 + 2618 = \square \rightarrow \text{C}$
$3791 + 6009 = \square \rightarrow \text{R}$		

Scratch space:

CLUE 3 Subtraction

A box of trail mix was dropped on the path. We need to subtract the spilled pieces to see how much food the suspect has left.

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

T			T															
6025	3490	2234	6025	3490	2526	2234	3527	4744	4474	6810	4474	8492	4474	3086	3527	4744	6427	4970
	T																	
4474	6025	2526	6810	3086	5762	7418	2526	2887	2234	4744								

10810 - 4785 = → T	5141 - 397 = → R	4666 - 1580 = → Y
6498 - 3611 = → D	8121 - 3647 = → A	11565 - 3073 = → W
5316 - 3082 = → E	9678 - 3916 = → S	4877 - 2351 = → I
7364 - 554 = → N	8727 - 2300 = → O	6494 - 3004 = → H
11862 - 4444 = → P	3734 - 207 = → F	9895 - 4925 = → M

Scratch space:

CLUE 4

Multiplication facts (1-12)

We discovered a grid of dusty footprints shaped like a perfect square. Let us multiply the rows to find out how many steps were taken.

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

A						A								A
24	56	88	12	11	81	24	96	60	63	60	88	15	24	
					A				A					
27	88	12	7	72	24	96	56	20	24	132	56	16	63	72

$3 \times 8 = \square \rightarrow \text{A}$

$11 \times 1 = \square \rightarrow \text{G}$

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

$12 \times 8 = \square \rightarrow \text{I}$

$1 \times 7 = \square \rightarrow \text{Y}$

$8 \times 2 = \square \rightarrow \text{E}$

$3 \times 5 = \square \rightarrow \text{M}$

$2 \times 6 = \square \rightarrow \text{N}$

$4 \times 5 = \square \rightarrow \text{W}$

$6 \times 12 = \square \rightarrow \text{T}$

$3 \times 9 = \square \rightarrow \text{P}$

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

$8 \times 11 = \square \rightarrow \text{O}$

$5 \times 12 = \square \rightarrow \text{R}$

$8 \times 7 = \square \rightarrow \text{L}$

$12 \times 11 = \square \rightarrow \text{S}$

Scratch space:

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

The search party found a bundle of clue sheets. We must divide them equally among our teams so everyone can hunt at the same time.

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:

$16 \div 4 = \boxed{}$

$54 \div 9 = \boxed{}$

$96 \div 12 = \boxed{}$

$35 \div 5 = \boxed{}$

$50 \div 5 = \boxed{}$

$99 \div 11 = \boxed{}$

$22 \div 2 = \boxed{}$

$12 \div 6 = \boxed{}$

$24 \div 2 = \boxed{}$

$10 \div 10 = \boxed{}$

$33 \div 11 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain paddled across the lake, then snatched the prize.
2. The villain paddled across the lake, then grabbed the golden telescope.
3. The villain swung on a vine, then snatched the prize.
4. The villain decoded the secret message, then pushed the hidden button.
5. The villain solved the ancient puzzle, then pushed the hidden button.
6. The villain decoded the secret message, then unlocked the stone chest.
7. The villain paddled across the lake, then unlocked the stone chest.
8. The villain climbed the cliffside, then shined a light on the map.
9. The villain paddled across the lake, then shined a light on the map.
10. The villain decoded the secret message, then shined a light on the map.
11. The villain paddled across the lake, then pushed the hidden button.
12. The villain swung on a vine, then grabbed the golden telescope.

Answer Key

The Mystery of the Missing Telescope

Culprit: Maya

Map Reading · Laser Pointer · Right-Handed · Ponytail · Fear of Spiders

Trail: Start 21 → Clue 1 17 → Clue 2 11 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE THIEF DOES NOT USE NIGHT VISION GOGGLES"

Round 128 to the nearest ten = 130 (T) · Round 4,711 to the nearest thousand = 5000 (F) · Round 87 to the nearest ten = 90 (N) · Round 688 to the nearest hundred = 700 (I) · Round 1,108 to the nearest hundred = 1100 (S) · Round 1,736 to the nearest hundred = 1700 (H) · Round 2,276 to the nearest hundred = 2300 (E) · Round 2,863 to the nearest hundred = 2900 (V) · Round 170 to the nearest ten = 170 (L) · Round 288 to the nearest ten = 290 (O) · Round 70 to the nearest ten = 70 (D) · Round 173 to the nearest hundred = 200 (U) · Round 3,696 to the nearest hundred = 3700 (G)

Clue 2 (Addition): "THE SUSPECT DROPPED A RIGHT HANDED GLOVE"

$3621 + 2185 = 5806$ (T) · $2987 + 3245 = 6232$ (I) · $750 + 1641 = 2391$ (N) · $6696 + 3039 = 9735$ (S) · $1517 + 2384 = 3901$ (O) · $2760 + 4392 = 7152$ (L) · $3540 + 3875 = 7415$ (V) · $6155 + 3005 = 9160$ (E) · $2088 + 905 = 2993$ (P) · $2961 + 3704 = 6665$ (U) · $2532 + 3340 = 5872$ (H) · $988 + 2246 = 3234$ (G) · $2123 + 4064 = 6187$ (A) · $2893 + 1895 = 4788$ (D) · $2267 + 2618 = 4885$ (C) · $3791 + 6009 = 9800$ (R)

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

$10810 - 4785 = 6025$ (T) · $5141 - 397 = 4744$ (R) · $4666 - 1580 = 3086$ (Y) · $6498 - 3611 = 2887$ (D) · $8121 - 3647 = 4474$ (A) · $11565 - 3073 = 8492$ (W) · $5316 - 3082 = 2234$ (E) · $9678 - 3916 = 5762$ (S) · $4877 - 2351 = 2526$ (I) · $7364 - 554 = 6810$ (N) · $8727 - 2300 = 6427$ (O) · $6494 - 3004 = 3490$ (H) · $11862 - 4444 = 7418$ (P) · $3734 - 207 = 3527$ (F) · $9895 - 4925 = 4970$ (M)

Clue 4 (Multiplication facts (1-12)): "A LONG HAIR FROM A PONYTAIL WAS LEFT"

$3 \times 8 = 24$ (A) · $11 \times 1 = 11$ (G) · $9 \times 9 = 81$ (H) · $12 \times 8 = 96$ (I) · $1 \times 7 = 7$ (Y) · $8 \times 2 = 16$ (E) · $3 \times 5 = 15$ (M) · $2 \times 6 = 12$ (N) · $4 \times 5 = 20$ (W) · $6 \times 12 = 72$ (T) · $3 \times 9 = 27$ (P) · $7 \times 9 = 63$ (F) · $8 \times 11 = 88$ (O) · $5 \times 12 = 60$ (R) · $8 \times 7 = 56$ (L) · $12 \times 11 = 132$ (S)

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

$16 \div 4 = 4$ · $54 \div 9 = 6$ · $96 \div 12 = 8$ · $35 \div 5 = 7$ · $50 \div 5 = 10$ · $99 \div 11 = 9$ · $22 \div 2 = 11$ · $12 \div 6 = 2$ · $24 \div 2 = 12$ · $10 \div 10 = 1$ · $33 \div 11 = 3$