The Lost Compass Mystery

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

Detective: _____ **Date:** _____

Someone snuck into the Whispering Pines clubhouse and snatched the golden camp trophy! Ranger Sam found clues on the trail to help figure 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 Trail Bandit is _____

Possible suspects

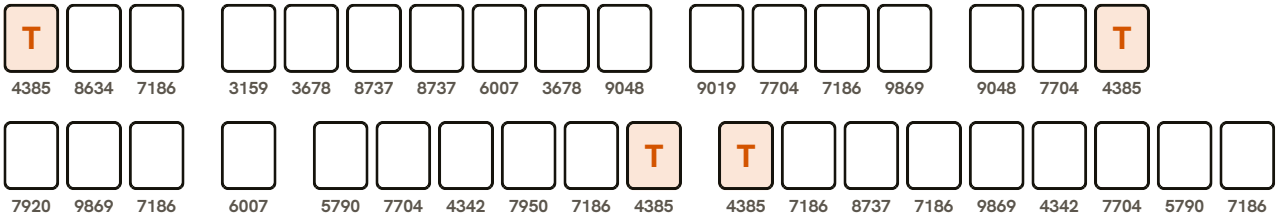
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	MAIN GADGET	EXTRA TOOL	HANDEDNESS	HAIR COLOR	WEAKNESS
Mason Rivera	Compass Watch	Pocket Telescope	Right Handed	Red Hair	Bright Light
Ethan Zhang	Grappling Hook	Paracord Rope	Left Handed	Blonde Hair	Scent of Vanilla
Grace Mercer	Torch Flashlight	Bronze Key	Right Handed	Black Hair	Scent of Vanilla
Sophia Chen	Compass Watch	Pocket Telescope	Right Handed	Red Hair	Loud Noises
Noah Miller	Compass Watch	Survival Whistle	Left Handed	Black Hair	Scent of Vanilla
Ava Jackson	Smoke Pellets	Paracord Rope	Right Handed	Blonde Hair	Bright Light
Liam Obrien	Torch Flashlight	Bronze Key	Left Handed	Blonde Hair	Scent of Vanilla
Lucas Kim	Decoder Ring	Survival Whistle	Right Handed	Black Hair	Loud Noises
Caleb Thorne	Torch Flashlight	Survival Whistle	Left Handed	Black Hair	Scent of Vanilla
Aaliyah Reed	Compass Watch	Pocket Telescope	Left Handed	Blonde Hair	Bright Light
Owen Sterling	Decoder Ring	Pocket Telescope	Right Handed	Black Hair	Bright Light
Ruby Rhodes	Smoke Pellets	Paracord Rope	Right Handed	Black Hair	Loud Noises
Nora Vance	Smoke Pellets	Pocket Telescope	Right Handed	Black Hair	Loud Noises
Isaac Connor	Torch Flashlight	Trail Chalk	Left Handed	Black Hair	Loud Noises
Samir Patel	Torch Flashlight	Pocket Telescope	Left Handed	Black Hair	Loud Noises
Maya Lin	Decoder Ring	Survival Whistle	Left Handed	Blonde Hair	Scent of Vanilla
Aria Montgomery	Torch Flashlight	Bronze Key	Right Handed	Blonde Hair	Loud Noises
Diego Cruz	Compass Watch	Bronze Key	Right Handed	Black Hair	Loud Noises
Ella Dubois	Grappling Hook	Bronze Key	Right Handed	Black Hair	Loud Noises
Eli Hudson	Compass Watch	Pocket Telescope	Left Handed	Red Hair	Scent of Vanilla
Zoe Castiglione	Smoke Pellets	Pocket Telescope	Left Handed	Black Hair	Loud Noises

CLUE 1 Addition

Ranger Sam gathers up all the loose trail maps left at camp to total them up.

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



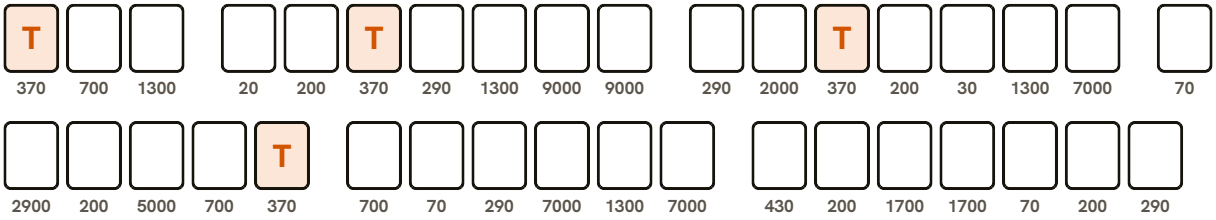
2492 + 1893 = ☐ → T	4257 + 2929 = ☐ → E	4651 + 4368 = ☐ → D
5051 + 4818 = ☐ → S	1400 + 2278 = ☐ → I	3170 + 5464 = ☐ → H
4290 + 4447 = ☐ → L	2370 + 1972 = ☐ → C	2099 + 1060 = ☐ → V
3959 + 1831 = ☐ → P	5164 + 3884 = ☐ → N	5443 + 2477 = ☐ → U
3839 + 2168 = ☐ → A	5159 + 2545 = ☐ → O	5316 + 2634 = ☐ → K

Scratch space:

CLUE 2 Rounding

The outpost scanner display only shows rounded distances to nearby landmarks.

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



Round 373 to the nearest ten ☐ → T

Round 8,647 to the nearest thousand ☐ → S

Round 6,701 to the nearest thousand ☐ → D

Round 5,007 to the nearest thousand ☐ → G

Round 1,283 to the nearest hundred ☐ → E

Round 239 to the nearest hundred ☐ → I

Round 1,737 to the nearest hundred ☐ → L

Round 1,914 to the nearest thousand ☐ → O

Round 2,858 to the nearest hundred ☐ → R

Round 692 to the nearest hundred ☐ → H

Round 29 to the nearest ten ☐ → C

Round 71 to the nearest ten ☐ → A

Round 292 to the nearest ten ☐ → N

Round 23 to the nearest ten ☐ → W

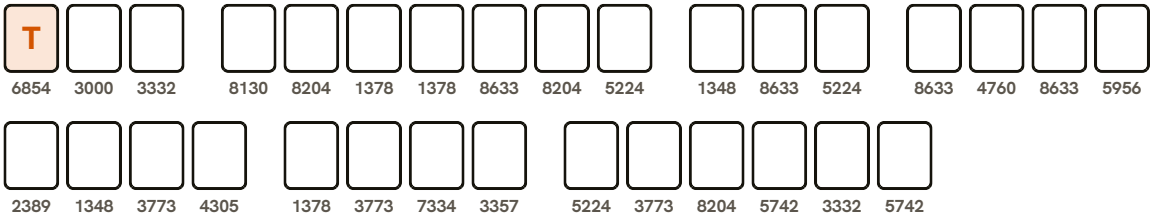
Round 430 to the nearest ten ☐ → V

Scratch space:

CLUE 3 Subtraction

Ranger Sam checks the remaining supply crates after taking out used items.

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



7779 - 925 = ☐ → T

3564 - 564 = ☐ → H

7417 - 83 = ☐ → U

1745 - 397 = ☐ → R

8255 - 4898 = ☐ → D

9031 - 3075 = ☐ → Y

9092 - 459 = ☐ → A

8617 - 4844 = ☐ → O

9230 - 3488 = ☐ → S

8226 - 3921 = ☐ → M

3302 - 1924 = ☐ → L

6899 - 3567 = ☐ → E

7358 - 4969 = ☐ → F

9301 - 4077 = ☐ → N

9972 - 1768 = ☐ → I

8492 - 362 = ☐ → V

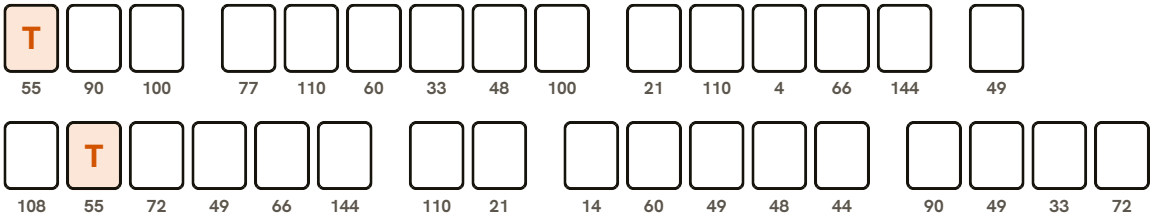
8160 - 3400 = ☐ → W

Scratch space:

CLUE 4 Multiplication facts (1-12)

> The team counts gear bags arranged in equal rows inside the supply tent.

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



11 × 5 = ☐ → T	7 × 2 = ☐ → B	1 × 4 = ☐ → U
10 × 9 = ☐ → H	12 × 4 = ☐ → C	10 × 10 = ☐ → E
3 × 7 = ☐ → F	6 × 12 = ☐ → R	11 × 3 = ☐ → I
12 × 12 = ☐ → D	7 × 7 = ☐ → A	11 × 7 = ☐ → P
4 × 11 = ☐ → K	11 × 10 = ☐ → O	9 × 12 = ☐ → S
6 × 10 = ☐ → L	11 × 6 = ☐ → N	

Scratch space:

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

Ranger Sam splits up the discovery badges equally among the scout groups.

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:

3 ÷ 1 = ☐ | 14 ÷ 7 = ☐ | 16 ÷ 2 = ☐ | 60 ÷ 10 = ☐ | 10 ÷ 2 = ☐

32 ÷ 8 = ☐ | 70 ÷ 10 = ☐ | 22 ÷ 2 = ☐ | 108 ÷ 12 = ☐ | 36 ÷ 3 = ☐

7 ÷ 7 = ☐

Step 2 - cross out the sentence with each answer:

1. The villain lit up the dark cavern with a torch flashlight, then marked a secret path using trail chalk.
2. The villain escaped behind a cloud of smoke pellets, then tied up the camp gate using paracord rope.
3. The villain checked directions with a compass watch, then unlocked the side door with a bronze key.
4. The villain unlocked the ancient chest with a decoder ring, then tied up the camp gate using paracord rope.
5. The villain checked directions with a compass watch, then scouted the high ridge with a pocket telescope.
6. The villain escaped behind a cloud of smoke pellets, then scouted the high ridge with a pocket telescope.
7. The villain checked directions with a compass watch, then blew a sharp warning on a survival whistle.
8. The villain swung across the canyon with a grappling hook, then unlocked the side door with a bronze key.
9. The villain escaped behind a cloud of smoke pellets, then blew a sharp warning on a survival whistle.
10. The villain unlocked the ancient chest with a decoder ring, then blew a sharp warning on a survival whistle.
11. The villain escaped behind a cloud of smoke pellets, then marked a secret path using trail chalk.
12. The villain escaped behind a cloud of smoke pellets, then unlocked the side door with a bronze key.

TEACHER / PARENT

Answer Key

The Lost Compass Mystery

Culprit: Lucas Kim

Decoder Ring · Survival Whistle · Right Handed · Black Hair · Loud Noises

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

Clue 1 (Addition): "THE VILLAIN DOES NOT USE A POCKET TELESCOPE"

2492 + 1893 = 4385 (T) · 4257 + 2929 = 7186 (E) · 4651 + 4368 = 9019 (D) · 5051 + 4818 = 9869 (S) · 1400 + 2278 = 3678 (I) · 3170 + 5464 = 8634 (H) · 4290 + 4447 = 8737 (L) · 2370 + 1972 = 4342 (C) · 2099 + 1060 = 3159 (V) · 3959 + 1831 = 5790 (P) · 5164 + 3884 = 9048 (N) · 5443 + 2477 = 7920 (U) · 3839 + 2168 = 6007 (A) · 5159 + 2545 = 7704 (O) · 5316 + 2634 = 7950 (K)

Clue 2 (Rounding): "THE WITNESS NOTICED A RIGHT HANDED VILLAIN"

Round 373 to the nearest ten = 370 (T) · Round 8,647 to the nearest thousand = 9000 (S) · Round 6,701 to the nearest thousand = 7000 (D) · Round 5,007 to the nearest thousand = 5000 (G) · Round 1,283 to the nearest hundred = 1300 (E) · Round 239 to the nearest hundred = 200 (I) · Round 1,737 to the nearest hundred = 1700 (L) · Round 1,914 to the nearest thousand = 2000 (O) · Round 2,858 to the nearest hundred = 2900 (R) · Round 692 to the nearest hundred = 700 (H) · Round 29 to the nearest ten = 30 (C) · Round 71 to the nearest ten = 70 (A) · Round 292 to the nearest ten = 290 (N) · Round 23 to the nearest ten = 20 (W) · Round 430 to the nearest ten = 430 (V)

Clue 3 (Subtraction): "THE VILLAIN RAN AWAY FROM LOUD NOISES"

7779 - 925 = 6854 (T) · 3564 - 564 = 3000 (H) · 7417 - 83 = 7334 (U) · 1745 - 397 = 1348 (R) · 8255 - 4898 = 3357 (D) · 9031 - 3075 = 5956 (Y) · 9092 - 459 = 8633 (A) · 8617 - 4844 = 3773 (O) · 9230 - 3488 = 5742 (S) · 8226 - 3921 = 4305 (M) · 3302 - 1924 = 1378 (L) · 6899 - 3567 = 3332 (E) · 7358 - 4969 = 2389 (F) · 9301 - 4077 = 5224 (N) · 9972 - 1768 = 8204 (I) · 8492 - 362 = 8130 (V) · 8160 - 3400 = 4760 (W)

Clue 4 (Multiplication facts (1-12)): "THE POLICE FOUND A STRAND OF BLACK HAIR"

11 × 5 = 55 (T) · 7 × 2 = 14 (B) · 1 × 4 = 4 (U) · 10 × 9 = 90 (H) · 12 × 4 = 48 (C) · 10 × 10 = 100 (E) · 3 × 7 = 21 (F) · 6 × 12 = 72 (R) · 11 × 3 = 33 (I) · 12 × 12 = 144 (D) · 7 × 7 = 49 (A) · 11 × 7 = 77 (P) · 4 × 11 = 44 (K) · 11 × 10 = 110 (O) · 9 × 12 = 108 (S) · 6 × 10 = 60 (L) · 11 × 6 = 66 (N)

Clue 5 (Division facts (1-12)): surviving statement is box 10 → Lucas Kim

3 ÷ 1 = 3 · 14 ÷ 7 = 2 · 16 ÷ 2 = 8 · 60 ÷ 10 = 6 · 10 ÷ 2 = 5 · 32 ÷ 8 = 4 · 70 ÷ 10 = 7 · 22 ÷ 2 = 11 · 108 ÷ 12 = 9 · 36 ÷ 3 = 12 · 7 ÷ 7 = 1