The Mystery of the Treehouse Compass

Grade 3 math · Multiplication, Rounding, Addition, Subtraction, Division · Reading level grades 1-2

Detective: _____ **Date:** _____

Someone hid the golden camp compass in the Whispering Woods! Solve the clues to help the scout team find the culprit and recover the compass.

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 Treehouse Traitor is _____

Possible suspects

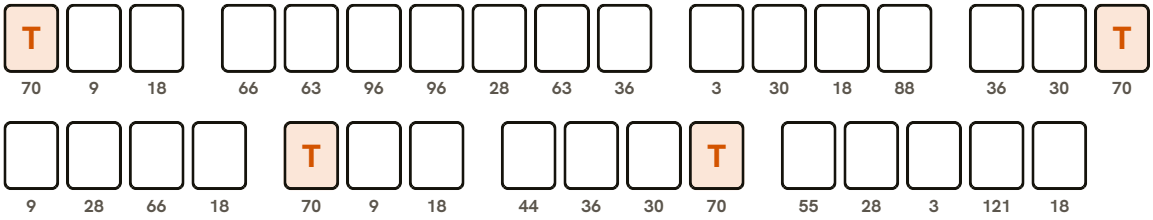
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	ADVENTURER GEAR	SCOUT BADGE	STANCE	CAP COLOR	CAMP FEAR
Nora	Canteen	Wildlife Badge	Left Handed	Green Cap	Mud Puddles
Ava	Binoculars	Trail Badge	Right Handed	Red Cap	Dark Caves
Eli	Compass	Map Badge	Right Handed	Green Cap	Mud Puddles
Sadie	Canteen	Wildlife Badge	Right Handed	Green Cap	Mud Puddles
Lily	Compass	Wildlife Badge	Left Handed	Green Cap	Mud Puddles
Jack	Binoculars	Knot Badge	Left Handed	Blue Cap	Mud Puddles
Chloe	Flashlight	Map Badge	Left Handed	Blue Cap	Mud Puddles
Clara	Flashlight	Wildlife Badge	Right Handed	Blue Cap	Buzzing Bees
Ivy	Flashlight	Fire Badge	Right Handed	Green Cap	Dark Caves
Sam	Flashlight	Wildlife Badge	Right Handed	Red Cap	Mud Puddles
Noah	Canteen	Trail Badge	Right Handed	Green Cap	Mud Puddles
Ruby	Flashlight	Map Badge	Right Handed	Green Cap	Mud Puddles
Zoe	Flashlight	Knot Badge	Right Handed	Green Cap	Mud Puddles
Toby	Canteen	Trail Badge	Left Handed	Red Cap	Dark Caves
Maya	Canteen	Trail Badge	Right Handed	Green Cap	Dark Caves
Ella	Flashlight	Wildlife Badge	Left Handed	Green Cap	Mud Puddles
Cole	Rope	Knot Badge	Left Handed	Blue Cap	Mud Puddles
Owen	Compass	Trail Badge	Left Handed	Green Cap	Dark Caves
Luke	Binoculars	Trail Badge	Right Handed	Blue Cap	Mud Puddles
Ben	Compass	Trail Badge	Right Handed	Red Cap	Dark Caves
Leo	Rope	Wildlife Badge	Left Handed	Blue Cap	Dark Caves

CLUE 1 Multiplication facts (1-12)

> We found rows of tents set up in the woods. Solve this math to count them all!

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



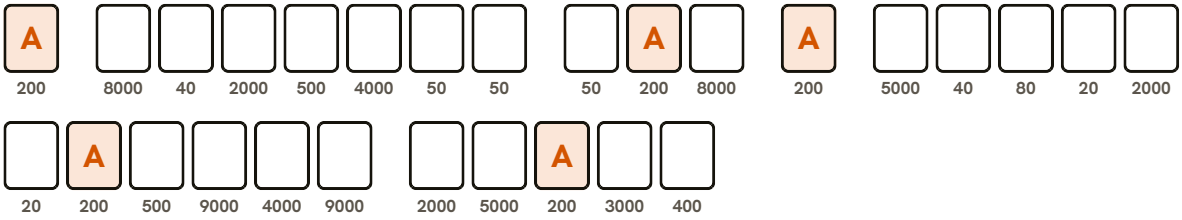
10 × 7 = ☐ → T	3 × 1 = ☐ → D	11 × 6 = ☐ → V
12 × 8 = ☐ → L	7 × 9 = ☐ → I	4 × 11 = ☐ → K
8 × 11 = ☐ → S	6 × 6 = ☐ → N	11 × 11 = ☐ → G
1 × 9 = ☐ → H	9 × 2 = ☐ → E	6 × 5 = ☐ → O
4 × 7 = ☐ → A		11 × 5 = ☐ → B

Scratch space:

CLUE 2 Rounding

The scout radio screen rounds numbers up or down. Solve this math to read it clearly!

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



Round 199 to the nearest hundred ☐ → A

Round 40 to the nearest ten ☐ → I

Round 9,135 to the nearest thousand ☐ → D

Round 48 to the nearest ten ☐ → S

Round 7,847 to the nearest thousand ☐ → W

Round 442 to the nearest hundred ☐ → K

Round 4,621 to the nearest thousand ☐ → R

Round 81 to the nearest ten ☐ → G

Round 1,588 to the nearest thousand ☐ → T

Round 3,395 to the nearest thousand ☐ → C

Round 17 to the nearest ten ☐ → H

Round 4,193 to the nearest thousand ☐ → E

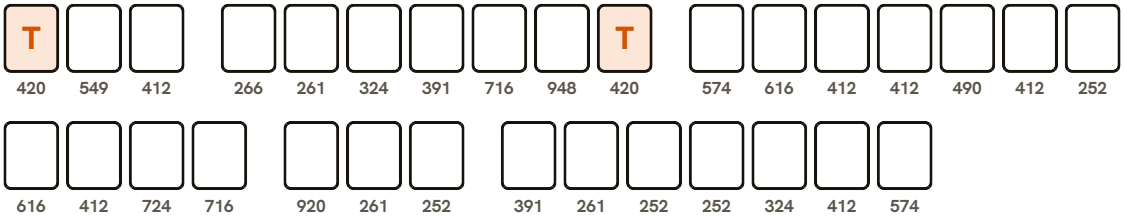
Round 457 to the nearest hundred ☐ → N

Scratch space:

CLUE 3 Addition

The campers gathered all their trail snacks together. Solve this math to find the total!

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



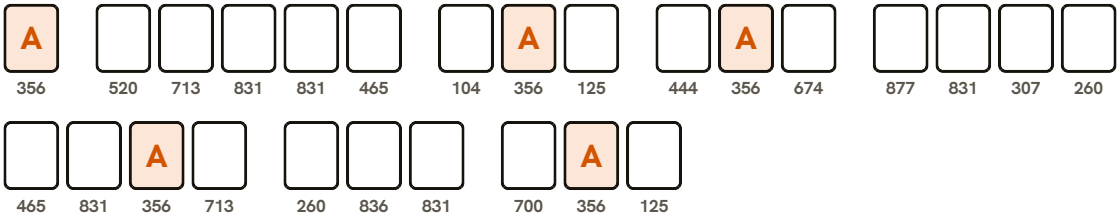
215 + 205 = ☐ → T	351 + 223 = ☐ → S	173 + 88 = ☐ → U
319 + 230 = ☐ → H	221 + 191 = ☐ → E	310 + 406 = ☐ → R
134 + 257 = ☐ → P	311 + 637 = ☐ → I	116 + 150 = ☐ → C
130 + 122 = ☐ → D	108 + 216 = ☐ → L	278 + 446 = ☐ → A
260 + 356 = ☐ → N	538 + 382 = ☐ → M	208 + 282 = ☐ → Z

Scratch space:

CLUE 4 Subtraction

Some pine cones rolled off the picnic table. Solve this math to see how many remain!

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



579 - 223 = ☐ → A

272 - 147 = ☐ → P

840 - 4 = ☐ → H

704 - 260 = ☐ → W

426 - 119 = ☐ → F

286 - 182 = ☐ → C

767 - 247 = ☐ → G

1083 - 383 = ☐ → M

747 - 34 = ☐ → R

1105 - 228 = ☐ → L

735 - 61 = ☐ → S

418 - 158 = ☐ → T

1066 - 235 = ☐ → E

468 - 3 = ☐ → N

Scratch space:

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

We need to share flashlight batteries equally among groups. Solve this math to divide them!

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:

110 ÷ 10 = ☐ | 88 ÷ 11 = ☐ | 84 ÷ 7 = ☐ | 30 ÷ 3 = ☐ | 21 ÷ 3 = ☐

12 ÷ 6 = ☐ | 30 ÷ 10 = ☐ | 44 ÷ 11 = ☐ | 10 ÷ 2 = ☐ | 2 ÷ 2 = ☐

12 ÷ 2 = ☐

Step 2 - cross out the sentence with each answer:

1. The villain uses a compass, then shows the trail badge.
2. The villain peeks through binoculars, then shows the trail badge.
3. The villain swings a rope, then shows the trail badge.
4. The villain swings a rope, then shows the wildlife badge.
5. The villain drinks from a canteen, then shows the fire badge.
6. The villain shines a flashlight, then shows the knot badge.
7. The villain uses a compass, then shows the wildlife badge.
8. The villain shines a flashlight, then shows the map badge.
9. The villain uses a compass, then shows the map badge.
10. The villain swings a rope, then shows the map badge.
11. The villain drinks from a canteen, then shows the trail badge.
12. The villain drinks from a canteen, then shows the wildlife badge.

TEACHER / PARENT

Answer Key

The Mystery of the Treehouse Compass

Culprit: Eli

Compass · Map Badge · Right Handed · Green Cap · Mud Puddles

Trail: Start 21 → Clue 1 18 → Clue 2 11 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE VILLAIN DOES NOT HAVE THE KNOT BADGE"

10 × 7 = 70 (T) · 3 × 1 = 3 (D) · 11 × 6 = 66 (V) · 12 × 8 = 96 (L) · 7 × 9 = 63 (I) · 4 × 11 = 44 (K) · 8 × 11 = 88 (S) · 6 × 6 = 36 (N) · 11 × 11 = 121 (G) · 1 × 9 = 9 (H) · 9 × 2 = 18 (E) · 6 × 5 = 30 (O) · 11 × 5 = 55 (B) · 4 × 7 = 28 (A)

Clue 2 (Rounding): "A WITNESS SAW A RIGHT HANDED TRACK"

Round 199 to the nearest hundred = 200 (A) · Round 40 to the nearest ten = 40 (I) · Round 9,135 to the nearest thousand = 9000 (D) · Round 48 to the nearest ten = 50 (S) · Round 7,847 to the nearest thousand = 8000 (W) · Round 442 to the nearest hundred = 400 (K) · Round 4,621 to the nearest thousand = 5000 (R) · Round 81 to the nearest ten = 80 (G) · Round 1,588 to the nearest thousand = 2000 (T) · Round 3,395 to the nearest thousand = 3000 (C) · Round 17 to the nearest ten = 20 (H) · Round 4,193 to the nearest thousand = 4000 (E) · Round 457 to the nearest hundred = 500 (N)

Clue 3 (Addition): "THE CULPRIT SNEEZED NEAR MUD PUDDLES"

215 + 205 = 420 (T) · 351 + 223 = 574 (S) · 173 + 88 = 261 (U) · 319 + 230 = 549 (H) · 221 + 191 = 412 (E) · 310 + 406 = 716 (R) · 134 + 257 = 391 (P) · 311 + 637 = 948 (I) · 116 + 150 = 266 (C) · 130 + 122 = 252 (D) · 108 + 216 = 324 (L) · 278 + 446 = 724 (A) · 260 + 356 = 616 (N) · 538 + 382 = 920 (M) · 208 + 282 = 490 (Z)

Clue 4 (Subtraction): "A GREEN CAP WAS LEFT NEAR THE MAP"

579 - 223 = 356 (A) · 272 - 147 = 125 (P) · 840 - 4 = 836 (H) · 704 - 260 = 444 (W) · 426 - 119 = 307 (F) · 286 - 182 = 104 (C) · 767 - 247 = 520 (G) · 1083 - 383 = 700 (M) · 747 - 34 = 713 (R) · 1105 - 228 = 877 (L) · 735 - 61 = 674 (S) · 418 - 158 = 260 (T) · 1066 - 235 = 831 (E) · 468 - 3 = 465 (N)

Clue 5 (Division facts (1-12)): surviving statement is box 9 → Eli

110 ÷ 10 = 11 · 88 ÷ 11 = 8 · 84 ÷ 7 = 12 · 30 ÷ 3 = 10 · 21 ÷ 3 = 7 · 12 ÷ 6 = 2 · 30 ÷ 10 = 3 · 44 ÷ 11 = 4 · 10 ÷ 2 = 5 · 2 ÷ 2 = 1 · 12 ÷ 2 = 6