The Great Treehouse Mystery

Grade 1 math · Addition, Subtraction, Multiplication, Place value, Division · Reading level grades 1-2

Detective: _____ **Date:** _____

Someone hid the official camp trophy inside Whispering Pines! The Head Ranger needs your help to follow clues, solve math puzzles, and spot the trickster.

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 Camp Prankster is _____

Possible suspects

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

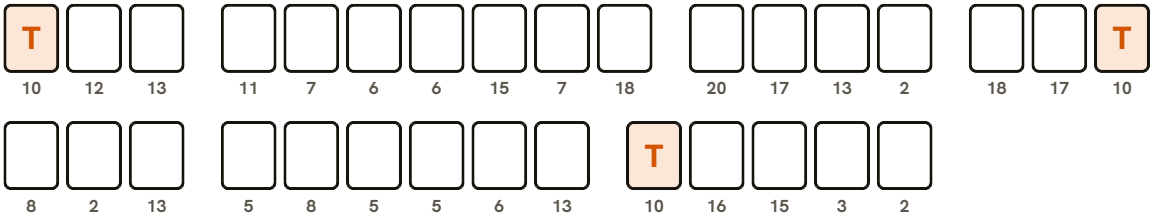
NAME	CAMP SKILL	TRAIL TRICK	BANDANA COLOR	HAIR STYLE	WEAKNESS
Sam	Flashlight Signaling	Mud Sliding	Wears Yellow Bandana	Braided Hair	Bug Spray
Nora	Flashlight Signaling	Marshmallow Toasting	Wears Yellow Bandana	Braided Hair	Bug Spray
Ivy	Compass Navigation	Bubble Trapping	Wears Red Bandana	Spiky Hair	Bug Spray
Nina	Rope Climbing	Mud Sliding	Wears Red Bandana	Curly Hair	Loud Whistle
Eli	Compass Navigation	Bubble Trapping	Wears Yellow Bandana	Braided Hair	Bug Spray
Ella	Zip Line Gliding	Marshmallow Toasting	Wears Red Bandana	Braided Hair	Flashlight Beam
Owen	Map Reading	Bubble Trapping	Wears Yellow Bandana	Curly Hair	Loud Whistle
Finn	Flashlight Signaling	Bubble Trapping	Wears Yellow Bandana	Braided Hair	Bug Spray
Ava	Rope Climbing	Bubble Trapping	Wears Yellow Bandana	Spiky Hair	Flashlight Beam
Kai	Flashlight Signaling	Marshmallow Toasting	Wears Yellow Bandana	Braided Hair	Flashlight Beam
Liam	Flashlight Signaling	Berry Throwing	Wears Red Bandana	Curly Hair	Flashlight Beam
Luke	Zip Line Gliding	Bubble Trapping	Wears Yellow Bandana	Spiky Hair	Bug Spray
Maya	Rope Climbing	Tree Scrambling	Wears Red Bandana	Braided Hair	Bug Spray
Mia	Zip Line Gliding	Marshmallow Toasting	Wears Yellow Bandana	Braided Hair	Bug Spray
Chloe	Rope Climbing	Bubble Trapping	Wears Red Bandana	Curly Hair	Loud Whistle
Ruby	Compass Navigation	Bubble Trapping	Wears Yellow Bandana	Spiky Hair	Loud Whistle
Sofia	Map Reading	Mud Sliding	Wears Yellow Bandana	Curly Hair	Bug Spray
Ben	Zip Line Gliding	Tree Scrambling	Wears Yellow Bandana	Spiky Hair	Flashlight Beam
Toby	Map Reading	Marshmallow Toasting	Wears Yellow Bandana	Braided Hair	Bug Spray
Jack	Rope Climbing	Tree Scrambling	Wears Yellow Bandana	Braided Hair	Flashlight Beam
Leo	Rope Climbing	Mud Sliding	Wears Yellow Bandana	Braided Hair	Flashlight Beam

make your own at mathcrackers.com

CLUE 1 Addition

We counted all the shiny badges found on the camp trail to solve the first mystery.

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



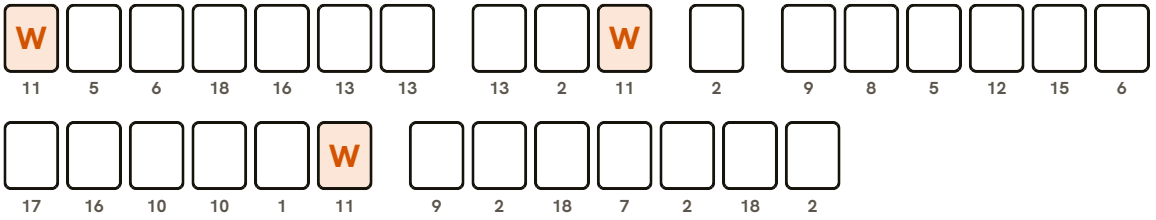
3 + 7 = ☐ → T	4 + 4 = ☐ → U	5 + 8 = ☐ → E	6 + 14 = ☐ → D
3 + 4 = ☐ → I	1 + 1 = ☐ → S	8 + 8 = ☐ → R	5 + 1 = ☐ → L
4 + 7 = ☐ → V	4 + 8 = ☐ → H	12 + 6 = ☐ → N	
10 + 7 = ☐ → O	3 + 2 = ☐ → B	9 + 6 = ☐ → A	1 + 2 = ☐ → P

Scratch space:

CLUE 2 Subtraction

We took away the broken compasses from the gear box to check what was left.

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



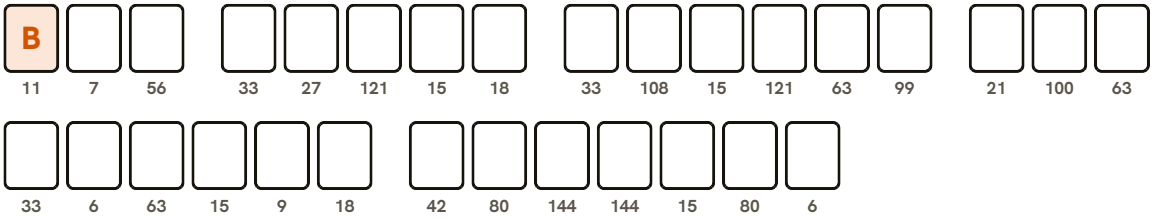
13 - 2 = ☐ → W	20 - 2 = ☐ → N	4 - 3 = ☐ → O	15 - 8 = ☐ → D
18 - 5 = ☐ → S	19 - 4 = ☐ → H	17 - 1 = ☐ → E	
15 - 5 = ☐ → L	17 - 9 = ☐ → R	13 - 1 = ☐ → G	3 - 1 = ☐ → A
6 - 1 = ☐ → I	10 - 4 = ☐ → T	19 - 2 = ☐ → Y	15 - 6 = ☐ → B

Scratch space:

CLUE 3 Multiplication facts (1-12)

> We checked four rows of tent pegs to find a hidden message.

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



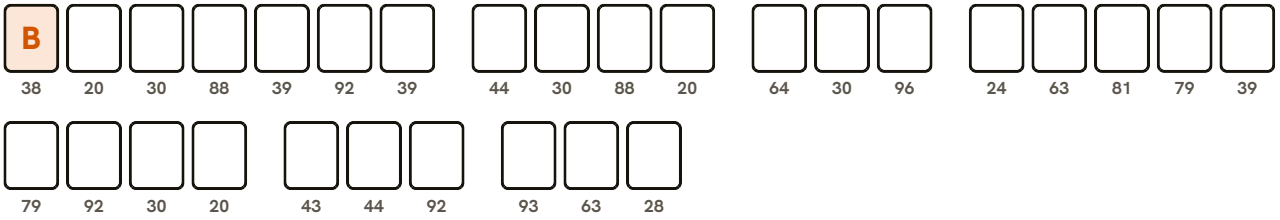
1 × 11 = ☐ → B	12 × 9 = ☐ → C	7 × 3 = ☐ → T	
11 × 11 = ☐ → R	10 × 8 = ☐ → I	7 × 9 = ☐ → E	
6 × 7 = ☐ → V	5 × 3 = ☐ → A	7 × 1 = ☐ → U	3 × 6 = ☐ → Y
10 × 10 = ☐ → H	8 × 7 = ☐ → G	3 × 9 = ☐ → P	
3 × 3 = ☐ → K	9 × 11 = ☐ → D	3 × 11 = ☐ → S	
12 × 12 = ☐ → L	3 × 2 = ☐ → N		

Scratch space:

CLUE 4 Place value

The digital lock on the supply cabin showed a two digit code.

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



What number has 3 tens and 8 ones? ☐ → B

What number has 4 tens and 3 ones? ☐ → T

What number has 4 tens and 4 ones? ☐ → H

What number has 2 tens and 0 ones? ☐ → R

What number has 2 tens and 4 ones? ☐ → F

What number has 6 tens and 4 ones? ☐ → W

What number has 9 tens and 6 ones? ☐ → S

What number has 7 tens and 9 ones? ☐ → N

What number has 8 tens and 8 ones? ☐ → I

What number has 3 tens and 9 ones? ☐ → D

What number has 2 tens and 8 ones? ☐ → G

What number has 6 tens and 3 ones? ☐ → O

What number has 8 tens and 1 one? ☐ → U

What number has 3 tens and 0 ones? ☐ → A

What number has 9 tens and 3 ones? ☐ → L

What number has 9 tens and 2 ones? ☐ → E

Scratch space:

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

> We shared the trail snack bags equally among the team to unlock the final hint.

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:

40 ÷ 10 = ☐ | 54 ÷ 9 = ☐ | 10 ÷ 10 = ☐ | 14 ÷ 2 = ☐ | 108 ÷ 9 = ☐

11 ÷ 1 = ☐ | 30 ÷ 3 = ☐ | 64 ÷ 8 = ☐ | 4 ÷ 2 = ☐ | 21 ÷ 7 = ☐

27 ÷ 3 = ☐

Step 2 - cross out the sentence with each answer:

1. The villain flashed the coded signal, then slid through the deep mud.
2. The villain guided the trail group, then toasted giant marshmallows.
3. The villain scaled the tall rope net, then slid through the deep mud.
4. The villain traced the secret map, then toasted giant marshmallows.
5. The villain flashed the coded signal, then toasted giant marshmallows.
6. The villain zoomed down the zip line, then toasted giant marshmallows.
7. The villain traced the secret map, then launched sticky bubbles.
8. The villain flashed the coded signal, then launched sticky bubbles.
9. The villain scaled the tall rope net, then toasted giant marshmallows.
10. The villain scaled the tall rope net, then launched sticky bubbles.
11. The villain guided the trail group, then slid through the deep mud.
12. The villain traced the secret map, then scrambled up the tree bark.

TEACHER / PARENT

Answer Key

The Great Treehouse Mystery

Culprit: Nora

Flashlight Signaling · Marshmallow Toasting · Wears Yellow Bandana · Braided Hair · Bug Spray

Trail: Start 21 → Clue 1 13 → Clue 2 9 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE VILLAIN DOES NOT USE BUBBLE TRAPS"

3 + 7 = 10 (T) · 4 + 4 = 8 (U) · 5 + 8 = 13 (E) · 6 + 14 = 20 (D) · 3 + 4 = 7 (I) · 1 + 1 = 2 (S) · 8 + 8 = 16 (R) · 5 + 1 = 6 (L) · 4 + 7 = 11 (V) · 4 + 8 = 12 (H) · 12 + 6 = 18 (N) · 10 + 7 = 17 (O) · 3 + 2 = 5 (B) · 9 + 6 = 15 (A) · 1 + 2 = 3 (P)

Clue 2 (Subtraction): "WITNESS SAW A BRIGHT YELLOW BANDANA"

13 - 2 = 11 (W) · 20 - 2 = 18 (N) · 4 - 3 = 1 (O) · 15 - 8 = 7 (D) · 18 - 5 = 13 (S) · 19 - 4 = 15 (H) · 17 - 1 = 16 (E) · 15 - 5 = 10 (L) · 17 - 9 = 8 (R) · 13 - 1 = 12 (G) · 3 - 1 = 2 (A) · 6 - 1 = 5 (I) · 10 - 4 = 6 (T) · 19 - 2 = 17 (Y) · 15 - 6 = 9 (B)

Clue 3 (Multiplication facts (1-12)): "BUG SPRAY SCARED THE SNEAKY VILLAIN"

1 × 11 = 11 (B) · 12 × 9 = 108 (C) · 7 × 3 = 21 (T) · 11 × 11 = 121 (R) · 10 × 8 = 80 (I) · 7 × 9 = 63 (E) · 6 × 7 = 42 (V) · 5 × 3 = 15 (A) · 7 × 1 = 7 (U) · 3 × 6 = 18 (Y) · 10 × 10 = 100 (H) · 8 × 7 = 56 (G) · 3 × 9 = 27 (P) · 3 × 3 = 9 (K) · 9 × 11 = 99 (D) · 3 × 11 = 33 (S) · 12 × 12 = 144 (L) · 3 × 2 = 6 (N)

Clue 4 (Place value): "BRAIDED HAIR WAS FOUND NEAR THE LOG"

What number has 3 tens and 8 ones? = 38 (B) · What number has 4 tens and 3 ones? = 43 (T) · What number has 4 tens and 4 ones? = 44 (H) · What number has 2 tens and 0 ones? = 20 (R) · What number has 2 tens and 4 ones? = 24 (F) · What number has 6 tens and 4 ones? = 64 (W) · What number has 9 tens and 6 ones? = 96 (S) · What number has 7 tens and 9 ones? = 79 (N) · What number has 8 tens and 8 ones? = 88 (I) · What number has 3 tens and 9 ones? = 39 (D) · What number has 2 tens and 8 ones? = 28 (G) · What number has 6 tens and 3 ones? = 63 (O) · What number has 8 tens and 1 one? = 81 (U) · What number has 3 tens and 0 ones? = 30 (A) · What number has 9 tens and 3 ones? = 93 (L) · What number has 9 tens and 2 ones? = 92 (E)

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

40 ÷ 10 = 4 · 54 ÷ 9 = 6 · 10 ÷ 10 = 1 · 14 ÷ 2 = 7 · 108 ÷ 9 = 12 · 11 ÷ 1 = 11 · 30 ÷ 3 = 10 · 64 ÷ 8 = 8 · 4 ÷ 2 = 2 · 21 ÷ 7 = 3 · 27 ÷ 3 = 9