# The Treehouse Fort Mystery

Grade 1 math · Addition, Subtraction, Multiplication, Skip counting, Division · Reading level grades 1-2

**Detective:** _____ **Date:** _____

Someone snuck into the club treehouse and took the secret snack box! Solve the math clues to 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 Snack Bandit is** _____

## Possible suspects

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

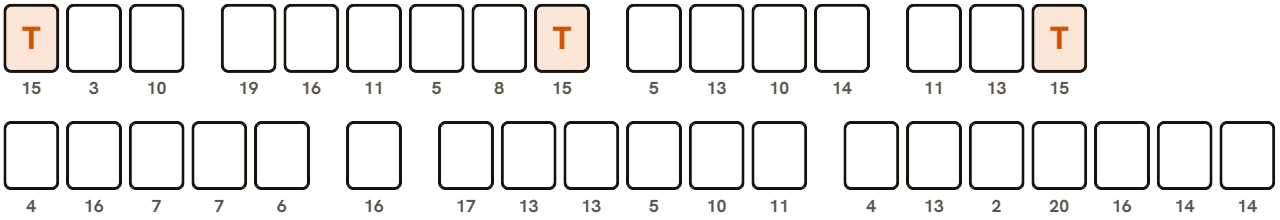
| NAME | CLUB SKILL | GEAR ITEM | DOMINANT HAND | HAIR STYLE | SCARED BY |
|---|---|---|---|---|---|
| **Milo** | Whistle Blowing | Brass Bell | Left Handed | Smooth Hair | Squeaky Toys |
| **Ben** | Map Reading | Pocket Telescope | Left Handed | Spiky Hair | Squeaky Toys |
| **Max** | Whistle Blowing | Magnifying Glass | Left Handed | Curly Hair | Party Horns |
| **Cora** | Whistle Blowing | Bright Flashlight | Right Handed | Spiky Hair | Party Horns |
| **Toby** | Whistle Blowing | Magnifying Glass | Right Handed | Smooth Hair | Squeaky Toys |
| **Maya** | Whistle Blowing | Bright Flashlight | Left Handed | Spiky Hair | Party Horns |
| **Finn** | Map Reading | Magnifying Glass | Right Handed | Curly Hair | Party Horns |
| **Leo** | Shadow Sneaking | Pocket Telescope | Left Handed | Smooth Hair | Party Horns |
| **Owen** | Rope Climbing | Bright Flashlight | Right Handed | Smooth Hair | Squeaky Toys |
| **Ava** | Shadow Sneaking | Brass Bell | Left Handed | Smooth Hair | Party Horns |
| **Mia** | Whistle Blowing | Wooden Compass | Right Handed | Smooth Hair | Party Horns |
| **Ella** | Rope Climbing | Pocket Telescope | Right Handed | Smooth Hair | Party Horns |
| **Lily** | Rope Climbing | Brass Bell | Right Handed | Curly Hair | Bubble Blowers |
| **Eli** | Whistle Blowing | Brass Bell | Left Handed | Smooth Hair | Party Horns |
| **Sam** | Tree Hopping | Bright Flashlight | Right Handed | Curly Hair | Squeaky Toys |
| **Emma** | Rope Climbing | Brass Bell | Left Handed | Curly Hair | Party Horns |
| **Noah** | Tree Hopping | Brass Bell | Left Handed | Spiky Hair | Party Horns |
| **Joy** | Shadow Sneaking | Magnifying Glass | Right Handed | Smooth Hair | Party Horns |
| **Nora** | Map Reading | Pocket Telescope | Left Handed | Smooth Hair | Bubble Blowers |
| **Zoe** | Rope Climbing | Brass Bell | Right Handed | Smooth Hair | Party Horns |
| **Kai** | Shadow Sneaking | Brass Bell | Right Handed | Smooth Hair | Party Horns |

make your own at mathcrackers.com

## CLUE 1 Addition

We counted all the juice boxes added to the snack bin.

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



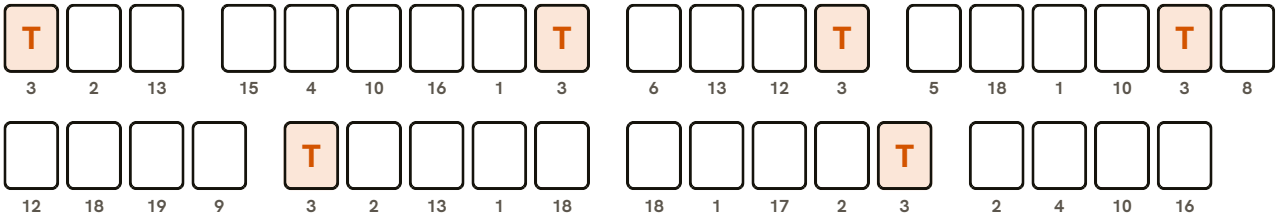

| | | | |
|---|---|---|---|
| 7 + 8 = ☐ → T | 4 + 2 = ☐ → Y | 6 + 11 = ☐ → W | 4 + 7 = ☐ → N |
| 9 + 7 = ☐ → A | 1 + 1 = ☐ → M | 10 + 3 = ☐ → O | 3 + 1 = ☐ → C |
| 4 + 3 = ☐ → R | 4 + 1 = ☐ → D | 11 + 8 = ☐ → B | 8 + 6 = ☐ → S |
| 6 + 14 = ☐ → P | 5 + 3 = ☐ → I | 2 + 1 = ☐ → H | 4 + 6 = ☐ → E |

Scratch space:

## CLUE 2 Subtraction

We took away the broken pinecones from our stash.

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



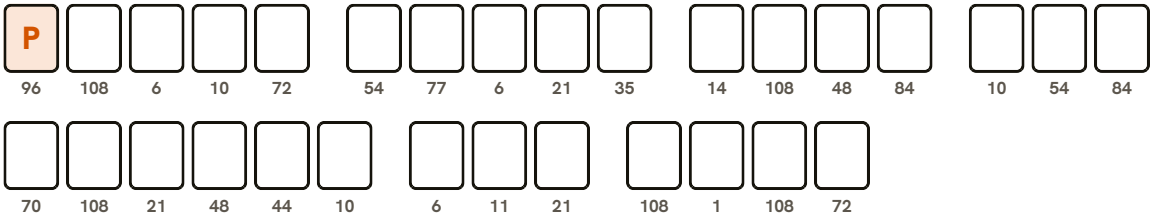

| | | | |
|---|---|---|---|
| 12 - 9 = ☐ → T | 8 - 2 = ☐ → L | 18 - 1 = ☐ → G | 20 - 2 = ☐ → R |
| 18 - 3 = ☐ → B | 8 - 7 = ☐ → I | 7 - 5 = ☐ → H | 17 - 9 = ☐ → S |
| 20 - 1 = ☐ → O | 13 - 4 = ☐ → M | 8 - 3 = ☐ → P | 12 - 2 = ☐ → N |
| 13 - 9 = ☐ → A | 14 - 1 = ☐ → E | 16 - 4 = ☐ → F | |
| 19 - 3 = ☐ → D | | | |

Scratch space:

## CLUE 3 Multiplication facts (1-12)

> We lined up our flashlights in equal groups.

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



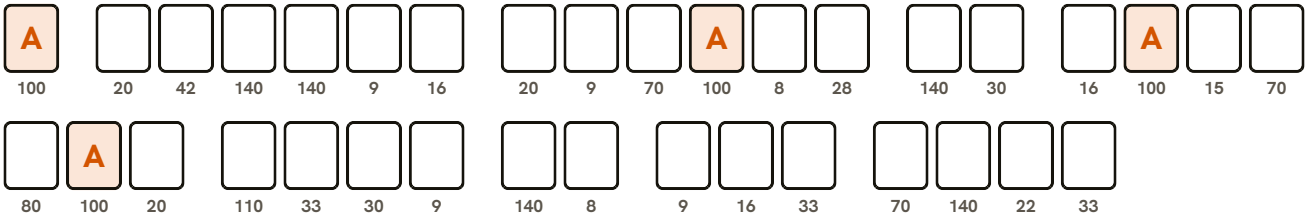

| | | |
|---|---|---|
| 12 × 8 = ☐ → P | 12 × 9 = ☐ → A | 1 × 1 = ☐ → W |
| 4 × 11 = ☐ → I | 5 × 7 = ☐ → S | 4 × 12 = ☐ → D |
| 11 × 1 = ☐ → U | 3 × 7 = ☐ → N | 7 × 12 = ☐ → E |
| 7 × 10 = ☐ → B | 3 × 2 = ☐ → R | 7 × 11 = ☐ → O |
| 1 × 10 = ☐ → T | 6 × 12 = ☐ → Y | 7 × 2 = ☐ → M |
| 9 × 6 = ☐ → H | | |

Scratch space:

## CLUE 4 Skip counting

We counted all the path markers by twos.

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




Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, ___, 110, 120 ☐ → A

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, ___, 45, 48 ☐ → M

Skip-count by 2s. Fill the blank: 2, 4, 6, ___, 10, 12 ☐ → N

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, ___, 22, 24 ☐ → S

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, ___, 90, 100 ☐ → W

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, ___, 75, 80 ☐ → R

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, ___, 35, 40 ☐ → F

Skip-count by 3s. Fill the blank: 3, 6, ___, 12, 15 ☐ → T

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, ___, 36, 39 ☐ → E

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, ___, 18, 21 ☐ → I

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, ___, 30, 32 ☐ → D

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, ___, 150, 160 ☐ → O

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, ___, 18, 20 ☐ → H

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, ___, 120, 130 ☐ → **L**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, ___, 24, 26 ☐ → **P**

Scratch space:

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

> We shared our trail mix equally into small bags.

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:**

108 ÷ 12 = ☐ | 60 ÷ 5 = ☐ | 25 ÷ 5 = ☐ | 8 ÷ 8 = ☐ | 33 ÷ 3 = ☐

36 ÷ 6 = ☐ | 20 ÷ 5 = ☐ | 64 ÷ 8 = ☐ | 20 ÷ 2 = ☐ | 2 ÷ 1 = ☐

28 ÷ 4 = ☐

**Step 2 - cross out the sentence with each answer:**

1. The villain blew a loud whistle, then shined a bright flashlight.
2. The villain snuck through the shadows, then shined a bright flashlight.
3. The villain climbed the high rope, then looked through a pocket telescope.
4. The villain climbed the high rope, then used a magnifying glass.
5. The villain snuck through the shadows, then used a magnifying glass.
6. The villain blew a loud whistle, then dropped a wooden compass.
7. The villain hopped across tree branches, then shined a bright flashlight.
8. The villain climbed the high rope, then dropped a wooden compass.
9. The villain snuck through the shadows, then rang a brass bell.
10. The villain read a secret map, then dropped a wooden compass.
11. The villain read a secret map, then shined a bright flashlight.
12. The villain climbed the high rope, then rang a brass bell.

TEACHER / PARENT

# Answer Key

The Treehouse Fort Mystery

## Culprit: Ella

Rope Climbing · Pocket Telescope · Right Handed · Smooth Hair · Party Horns

Trail: Start 21 → Clue 1 20 → Clue 2 10 → Clue 3 6 → Clue 4 4 → Clue 5 1

### Clue 1 (Addition): "THE BANDIT DOES NOT CARRY A WOODEN COMPASS"

7 + 8 = 15 (T) · 4 + 2 = 6 (Y) · 6 + 11 = 17 (W) · 4 + 7 = 11 (N) · 9 + 7 = 16 (A) · 1 + 1 = 2 (M) · 10 + 3 = 13 (O) · 3 + 1 = 4 (C) · 4 + 3 = 7 (R) · 4 + 1 = 5 (D) · 11 + 8 = 19 (B) · 8 + 6 = 14 (S) · 6 + 14 = 20 (P) · 5 + 3 = 8 (I) · 2 + 1 = 3 (H) · 4 + 6 = 10 (E)

### Clue 2 (Subtraction): "THE BANDIT LEFT PRINTS FROM THEIR RIGHT HAND"

12 - 9 = 3 (T) · 8 - 2 = 6 (L) · 18 - 1 = 17 (G) · 20 - 2 = 18 (R) · 18 - 3 = 15 (B) · 8 - 7 = 1 (I) · 7 - 5 = 2 (H) · 17 - 9 = 8 (S) · 20 - 1 = 19 (O) · 13 - 4 = 9 (M) · 8 - 3 = 5 (P) · 12 - 2 = 10 (N) · 13 - 9 = 4 (A) · 14 - 1 = 13 (E) · 16 - 4 = 12 (F) · 19 - 3 = 16 (D)

### Clue 3 (Multiplication facts (1-12)): "PARTY HORNS MADE THE BANDIT RUN AWAY"

12 × 8 = 96 (P) · 12 × 9 = 108 (A) · 1 × 1 = 1 (W) · 4 × 11 = 44 (I) · 5 × 7 = 35 (S) · 4 × 12 = 48 (D) · 11 × 1 = 11 (U) · 3 × 7 = 21 (N) · 7 × 12 = 84 (E) · 7 × 10 = 70 (B) · 3 × 2 = 6 (R) · 7 × 11 = 77 (O) · 1 × 10 = 10 (T) · 6 × 12 = 72 (Y) · 7 × 2 = 14 (M) · 9 × 6 = 54 (H)

### Clue 4 (Skip counting): "A SMOOTH STRAND OF HAIR WAS LEFT ON THE ROPE"

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, ___, 110, 120 = 100 (A) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, ___, 45, 48 = 42 (M) · Skip-count by 2s. Fill the blank: 2, 4, 6, ___, 10, 12 = 8 (N) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, ___, 22, 24 = 20 (S) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, ___, 90, 100 = 80 (W) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, ___, 75, 80 = 70 (R) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, ___, 35, 40 = 30 (F) · Skip-count by 3s. Fill the blank: 3, 6, ___, 12, 15 = 9 (T) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, ___, 36, 39 = 33 (E) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, ___, 18, 21 = 15 (I) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, ___, 30, 32 = 28 (D) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, ___, 150, 160 = 140 (O) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, ___, 18, 20 = 16 (H) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, ___, 120, 130 = 110 (L) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, ___, 24, 26 = 22 (P)

### Clue 5 (Division facts (1-12)): surviving statement is box 3 → Ella

108 ÷ 12 = 9 · 60 ÷ 5 = 12 · 25 ÷ 5 = 5 · 8 ÷ 8 = 1 · 33 ÷ 3 = 11 · 36 ÷ 6 = 6 · 20 ÷ 5 = 4 · 64 ÷ 8 = 8 · 20 ÷ 2 = 10 · 2 ÷ 1 = 2 · 28 ÷ 4 = 7