



The Treehouse Island Mystery

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

Detective: _____ Date: _____

Someone took the legendary Golden Juice Box from the treehouse vault! As the junior detective, you need to follow the footprints and 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 Secret Snacker is _____

Possible suspects

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

NAME	EXPLORER TOOL	BACKPACK GEAR	WRITING HAND	HAIR COLOR	DISTRACTION
Ella	slide whistle	shiny badge	right handed	brown hair	bubble gum
Maya	slide whistle	juice pack	left handed	brown hair	bubble gum
Grace	binocular map	laser pointer	left handed	brown hair	funny joke
Sam	binocular map	juice pack	left handed	yellow hair	bubble gum
Luke	secret compass	shiny badge	right handed	yellow hair	squeaky toy
Owen	slide whistle	shiny badge	left handed	brown hair	bubble gum
Lily	glow lantern	mud boots	left handed	yellow hair	bubble gum
Sophie	slide whistle	mud boots	right handed	yellow hair	bubble gum
Jack	secret compass	juice pack	left handed	red hair	bubble gum
Cole	binocular map	laser pointer	left handed	brown hair	squeaky toy
Mia	binocular map	laser pointer	right handed	yellow hair	squeaky toy
Jake	glow lantern	mud boots	right handed	red hair	funny joke
Emma	binocular map	mud boots	left handed	brown hair	squeaky toy
Liam	glow lantern	mud boots	left handed	red hair	funny joke
Abby	binocular map	juice pack	left handed	brown hair	bubble gum
Chloe	glow lantern	juice pack	right handed	red hair	funny joke
Zoe	glow lantern	laser pointer	right handed	brown hair	bubble gum
Nora	grappling hook	chalk box	right handed	brown hair	squeaky toy
Leo	binocular map	chalk box	left handed	brown hair	bubble gum
Finn	secret compass	mud boots	left handed	brown hair	bubble gum
Toby	binocular map	laser pointer	left handed	red hair	bubble gum

CLUE 1

Our treehouse map shows a fuzzy number. We must round it to the nearest ten to find the coordinates.

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

A number line from 0 to 10,000. The line is marked with the following numbers in boxes: 80, 60, 20, 600, 200, 8000, 8000, 9000, 200, 700, 2000, 3000, 20, 90, 700, 3000, and 80. The number 80 is highlighted in orange.

Round 79 to the nearest ten $\rightarrow$ **T**

Round 3,485 to the nearest thousand $\rightarrow$ ☐

Round 87 to the nearest ten $\rightarrow$ **S**

Round 50 to the nearest ten $\rightarrow$ **K**

Round 18 to the nearest ten $\rightarrow$ **E**

Round 8,553 to the nearest thousand $\rightarrow$ **A**

Round 435 to the nearest hundred $\rightarrow$ **B**

Round 1,675 to the nearest thousand → **D**

Round 199 to the nearest hundred $\rightarrow$

Round 631 to the nearest hundred → **V**

Round 693 to the nearest hundred → **N**

Round 63 to the nearest ten → **H**

Round 7,620 to the nearest thousand $\rightarrow$ **L**

Round 758 to the nearest hundred $\rightarrow$ **C**

Round 901 to the nearest hundred →

Scratch space:

CLUE 2

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

$$219 + 288 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$229 + 329 = \boxed{} \rightarrow \boxed{\text{A}}$$

$$503 + 415 = \boxed{} \rightarrow \boxed{\text{N}}$$

$$433 + 387 = \boxed{} \rightarrow \boxed{\text{L}}$$

$192 + 374 = \boxed{} \rightarrow \boxed{\text{I}}$

$$331 + 167 = \boxed{} \rightarrow \boxed{\text{R}}$$

$307 + 188 = \square \rightarrow \boxed{\text{O}}$

$$527 + 298 = \boxed{} \rightarrow \boxed{\text{F}}$$

$$330 + 198 = \boxed{} \rightarrow \boxed{\text{V}}$$

$209 + 142 = \boxed{} \rightarrow \boxed{\text{W}}$

$$255 + 279 = \boxed{} \rightarrow \boxed{\text{U}}$$

$$224 + 172 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$308 + 508 = \boxed{} \rightarrow \boxed{\mathbf{D}}$$

$$528 + 459 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$120 + 190 = \boxed{} \rightarrow \boxed{\text{H}}$$

Scratch space:

CLUE 3

Subtraction

A sneaky squirrel took some of our spy badges. Let us subtract them to see what is left.

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

T															
449	458	890	434	808	890	703	377	238	245	833	890	635	703	434	

T																	
449	867	703	323	323	890	619	551	238	551	872	551	551	156	890	625	872	624

$727 - 278 = \square \rightarrow \boxed{\text{T}}$

$684 - 226 = \square \rightarrow \boxed{\text{H}}$

$839 - 220 = \square \rightarrow \boxed{\text{D}}$

$673 - 122 = \square \rightarrow \boxed{\text{B}}$

$946 - 311 = \square \rightarrow \boxed{\text{W}}$

$943 - 76 = \square \rightarrow \boxed{\text{R}}$

$1220 - 387 = \square \rightarrow \boxed{\text{O}}$

$828 - 125 = \square \rightarrow \boxed{\text{A}}$

$970 - 80 = \square \rightarrow \boxed{\text{E}}$

$995 - 123 = \square \rightarrow \boxed{\text{U}}$

$762 - 137 = \square \rightarrow \boxed{\text{G}}$

$620 - 375 = \square \rightarrow \boxed{\text{F}}$

$805 - 371 = \square \rightarrow \boxed{\text{S}}$

$1035 - 227 = \square \rightarrow \boxed{\text{N}}$

$672 - 295 = \square \rightarrow \boxed{\text{K}}$

$514 - 358 = \square \rightarrow \boxed{\text{L}}$

$367 - 129 = \square \rightarrow \boxed{\text{Y}}$

$368 - 45 = \square \rightarrow \boxed{\text{P}}$

$731 - 107 = \square \rightarrow \boxed{\text{M}}$

Scratch space:

CLUE 4
Multiplication facts (1-12)

We pack our snack boxes in neat rows. We multiply the rows to find how many we have.

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

W															
48	40	2	4	96	100	64	60	24	25	66	60	100	64	4	2

							W						
64	60	66	88	1	66	4	48	100	99	60	33	66	

$12 \times 4 =$

→

W

$11 \times 3 =$

→

I

$2 \times 12 =$

→

S

$5 \times 5 =$

→

T

$1 \times 4 =$

→

O

$8 \times 8 =$

→

D

$2 \times 1 =$

→

F

$10 \times 6 =$

→

A

$11 \times 8 =$

→

K

$8 \times 12 =$

→

U

$1 \times 1 =$

→

B

$10 \times 10 =$

→

N

$11 \times 9 =$

→

H

$4 \times 10 =$

→

E

$6 \times 11 =$

→

R

Scratch space:

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

We want to share our map pieces equally. We divide them among our team members.

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:

$30 \div 3 = \boxed{}$

$108 \div 12 = \boxed{}$

$10 \div 5 = \boxed{}$

$16 \div 2 = \boxed{}$

$77 \div 11 = \boxed{}$

$48 \div 12 = \boxed{}$

$24 \div 4 = \boxed{}$

$18 \div 6 = \boxed{}$

$40 \div 8 = \boxed{}$

$33 \div 3 = \boxed{}$

$3 \div 3 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain swings on a rope, then pins on a metal star.
2. The villain plays a loud tune, then pins on a metal star.
3. The villain looks through the lens, then shines a red dot.
4. The villain looks through the lens, then splashes in a puddle.
5. The villain checks the needle, then sips a sweet drink.
6. The villain swings on a rope, then splashes in a puddle.
7. The villain swings on a rope, then shines a red dot.
8. The villain lights up the dark, then shines a red dot.
9. The villain looks through the lens, then sips a sweet drink.
10. The villain plays a loud tune, then sips a sweet drink.
11. The villain plays a loud tune, then shines a red dot.
12. The villain checks the needle, then splashes in a puddle.

Answer Key

The Treehouse Island Mystery

Culprit: Finn

secret compass · mud boots · left handed · brown hair · bubble gum

Trail: Start 21 → Clue 1 19 → Clue 2 12 → Clue 3 8 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE VILLAIN DOES NOT HAVE A CHALK BOX"

Round 79 to the nearest ten = 80 (T) · Round 3,485 to the nearest thousand = 3000 (O) · Round 87 to the nearest ten = 90 (S) · Round 50 to the nearest ten = 50 (K) · Round 18 to the nearest ten = 20 (E) · Round 8,553 to the nearest thousand = 9000 (A) · Round 435 to the nearest hundred = 400 (B) · Round 1,675 to the nearest thousand = 2000 (D) · Round 199 to the nearest hundred = 200 (I) · Round 631 to the nearest hundred = 600 (V) · Round 693 to the nearest hundred = 700 (N) · Round 63 to the nearest ten = 60 (H) · Round 7,620 to the nearest thousand = 8000 (L) · Round 758 to the nearest hundred = 800 (C) · Round 901 to the nearest hundred = 900 (X)

Clue 2 (Addition): "THE VISITOR USED THEIR LEFT HAND TO WRITE"

$219 + 288 = 507$ (T) · $229 + 329 = 558$ (A) · $503 + 415 = 918$ (N) · $433 + 387 = 820$ (L) · $192 + 374 = 566$ (I) · $331 + 167 = 498$ (R) · $307 + 188 = 495$ (O) · $527 + 298 = 825$ (F) · $330 + 198 = 528$ (V) · $209 + 142 = 351$ (W) · $255 + 279 = 534$ (U) · $224 + 172 = 396$ (E) · $308 + 508 = 816$ (D) · $528 + 459 = 987$ (S) · $120 + 190 = 310$ (H)

Clue 3 (Subtraction): "THE SNEAKY FOE WAS TRAPPED BY BUBBLE GUM"

$727 - 278 = 449$ (T) · $684 - 226 = 458$ (H) · $839 - 220 = 619$ (D) · $673 - 122 = 551$ (B) · $946 - 311 = 635$ (W) · $943 - 76 = 867$ (R) · $1220 - 387 = 833$ (O) · $828 - 125 = 703$ (A) · $970 - 80 = 890$ (E) · $995 - 123 = 872$ (U) · $762 - 137 = 625$ (G) · $620 - 375 = 245$ (F) · $805 - 371 = 434$ (S) · $1035 - 227 = 808$ (N) · $672 - 295 = 377$ (K) · $514 - 358 = 156$ (L) · $367 - 129 = 238$ (Y) · $368 - 45 = 323$ (P) · $731 - 107 = 624$ (M)

Clue 4 (Multiplication facts (1-12)): "WE FOUND A STRAND OF DARK BROWN HAIR"

$12 \times 4 = 48$ (W) · $11 \times 3 = 33$ (I) · $2 \times 12 = 24$ (S) · $5 \times 5 = 25$ (T) · $1 \times 4 = 4$ (O) · $8 \times 8 = 64$ (D) · $2 \times 1 = 2$ (F) · $10 \times 6 = 60$ (A) · $11 \times 8 = 88$ (K) · $8 \times 12 = 96$ (U) · $1 \times 1 = 1$ (B) · $10 \times 10 = 100$ (N) · $11 \times 9 = 99$ (H) · $4 \times 10 = 40$ (E) · $6 \times 11 = 66$ (R)

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

$30 \div 3 = 10$ · $108 \div 12 = 9$ · $10 \div 5 = 2$ · $16 \div 2 = 8$ · $77 \div 11 = 7$ · $48 \div 12 = 4$ · $24 \div 4 = 6$ · $18 \div 6 = 3$ · $40 \div 8 = 5$ · $33 \div 3 = 11$ · $3 \div 3 = 1$