



The Great Treehouse Mystery

Grade 2 math · Place value, Addition, Subtraction, Skip counting, Missing addends · Reading level grades 1-2

Detective: _____ Date: _____

The gold map is gone from the treehouse! A sneaky club member took it. We need to find the thief before they dig up the secret club chest.

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 Map Thief is _____

Possible suspects

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

NAME	MAIN TOOL	ESCAPE GEAR	WRITING HAND	HAIR COLOR	SECRET FEAR
Cole	rope lasso	wind glider	right handed	purple hair	squeaky toy
Jack	walkie talkie	spring shoes	right handed	green hair	cookie crumbs
Ella	rope lasso	fast bike	left handed	orange hair	cookie crumbs
Zoe	flash light	hover board	right handed	purple hair	cookie crumbs
Ryan	rope lasso	hover board	left handed	green hair	cookie crumbs
Cora	flash light	spring shoes	right handed	orange hair	squeaky toy
Ben	laser beam	jet pack	right handed	orange hair	cookie crumbs
Mia	bubble blast	hover board	right handed	orange hair	squeaky toy
Toby	rope lasso	hover board	right handed	orange hair	squeaky toy
Ruby	bubble blast	jet pack	right handed	orange hair	cookie crumbs
Zack	rope lasso	hover board	right handed	orange hair	cookie crumbs
Luke	laser beam	fast bike	left handed	green hair	cookie crumbs
Annie	bubble blast	jet pack	right handed	orange hair	squeaky toy
Sam	walkie talkie	jet pack	right handed	purple hair	cookie crumbs
Owen	laser beam	fast bike	left handed	orange hair	squeaky toy
Lily	bubble blast	wind glider	right handed	orange hair	squeaky toy
Leo	bubble blast	hover board	left handed	orange hair	squeaky toy
Max	bubble blast	wind glider	right handed	green hair	squeaky toy
Finn	flash light	hover board	right handed	orange hair	water spray
Abby	flash light	wind glider	left handed	purple hair	water spray
Noah	rope lasso	wind glider	left handed	orange hair	water spray

CLUE 1 Place value

The thief left a note with a secret code. We must look at the tens and ones blocks to read the map room number.

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

T								T										
41	68	89	44	17	22	84	22	41	68	51	95	89	83	29	40	38	84	43

83	68	22	89	83

What number has 4 tens and 1 one? → **T**

What number has 6 tens and 8 ones? → **H**

What number has 8 tens and 9 ones? → **E**

What number has 4 tens and 0 ones? → **R**

What number has 1 ten and 7 ones? → **D**

What number has 5 tens and 1 one? → **A**

What number has 8 tens and 3 ones? → **S**

What number has 4 tens and 4 ones? → **Y**

What number has 9 tens and 5 ones? → **V**

What number has 8 tens and 4 ones? → **N**

What number has 2 tens and 9 ones? → **P**

What number has 2 tens and 2 ones? → **O**

What number has 3 tens and 8 ones? → **I**

What number has 4 tens and 3 ones? → **G**

Scratch space:

CLUE 2

Addition

We found some dropped gear in the grass. Let us add up all the shiny badges to find the path they took.

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

T								T						T					
40	33	91	50	67	49	32	94	40	56	63	91	32	40	33	91	94	89		

				T					
89	94	25	33	40	33	67	49	32	

$12 + 28 = \square \rightarrow \boxed{\text{T}}$

$45 + 22 = \square \rightarrow \boxed{\text{A}}$

$32 + 59 = \square \rightarrow \boxed{\text{E}}$

$15 + 10 = \square \rightarrow \boxed{\text{G}}$

$34 + 60 = \square \rightarrow \boxed{\text{I}}$

$19 + 30 = \square \rightarrow \boxed{\text{N}}$

$13 + 19 = \square \rightarrow \boxed{\text{D}}$

$34 + 55 = \square \rightarrow \boxed{\text{R}}$

$44 + 19 = \square \rightarrow \boxed{\text{S}}$

$23 + 10 = \square \rightarrow \boxed{\text{H}}$

$18 + 32 = \square \rightarrow \boxed{\text{B}}$

$34 + 22 = \square \rightarrow \boxed{\text{U}}$

Scratch space:

CLUE 3

Subtraction

There are footprints near the treehouse. Subtract the small prints from the big ones to count how many steps they made.

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

T															
15	77	63	35	16	49	74	49	33	49	35	67	16	17	20	49

							T		
29	40	51	63	49	38	35	15	17	35

$18 - 3 = \square \rightarrow \boxed{\text{T}}$

$49 - 14 = \square \rightarrow \boxed{\text{Y}}$

$86 - 9 = \square \rightarrow \boxed{\text{H}}$

$108 - 34 = \square \rightarrow \boxed{\text{N}}$

$73 - 33 = \square \rightarrow \boxed{\text{Q}}$

$49 - 32 = \square \rightarrow \boxed{\text{O}}$

$75 - 37 = \square \rightarrow \boxed{\text{K}}$

$31 - 11 = \square \rightarrow \boxed{\text{M}}$

$47 - 14 = \square \rightarrow \boxed{\text{W}}$

$98 - 31 = \square \rightarrow \boxed{\text{F}}$

$66 - 3 = \square \rightarrow \boxed{\text{E}}$

$61 - 12 = \square \rightarrow \boxed{\text{A}}$

$52 - 36 = \square \rightarrow \boxed{\text{R}}$

$88 - 37 = \square \rightarrow \boxed{\text{U}}$

$55 - 26 = \square \rightarrow \boxed{\text{S}}$

Scratch space:

CLUE 4 Skip counting

The path goes past the stepping stones. We need to skip count by fives on the wet rocks to follow the trail.

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

W														
10	60	26	140	15	12	24	25	140	28	140	15	90	60	24

140	90	50	12	21	60	40	50	20	90

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, __, 12, 14 → **W**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, __, 14, 16 → **N**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, __, 24, 27 → **G**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 → **C**

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

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 10s. Fill the blank: 10, 20, 30, __, 50, 60 → **H**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, __, 100, 110 → **R**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, __, 26, 28 → **D**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, __, 65, 70 → **E**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, __, 18, 21 → **U**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, __, 22, 24 → **I**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, __, 28, 30 → **F**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, __, 55, 60

→

A

Scratch space:

CLUE 5**Missing addends - the last clue**

We have some old keys but we need more to open the chest. Find the missing number of keys we need to collect.

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:

$1 + \underline{\quad} = 5$

$9 + \underline{\quad} = 17$

$9 + \underline{\quad} = 18$

$7 + \underline{\quad} = 17$

$9 + \underline{\quad} = 20$

$9 + \underline{\quad} = 16$

$3 + \underline{\quad} = 15$

$8 + \underline{\quad} = 11$

$4 + \underline{\quad} = 10$

$9 + \underline{\quad} = 11$

$10 + \underline{\quad} = 15$

Step 2 - cross out the sentence with each answer:

1. The villain shoots a bubble blast, then flies off on a wind glider.
2. The villain talks on a walkie talkie, then flies off on a wind glider.
3. The villain shines a laser beam, then skates away on a hover board.
4. The villain throws a rope lasso, then skates away on a hover board.
5. The villain throws a rope lasso, then bounces high on spring shoes.
6. The villain turns on a flash light, then flies off on a wind glider.
7. The villain shines a laser beam, then zooms off on a jet pack.
8. The villain shoots a bubble blast, then skates away on a hover board.
9. The villain shoots a bubble blast, then zooms off on a jet pack.
10. The villain turns on a flash light, then zooms off on a jet pack.
11. The villain turns on a flash light, then rides away on a fast bike.
12. The villain throws a rope lasso, then zooms off on a jet pack.

Answer Key

The Great Treehouse Mystery

Culprit: Lily

bubble blast · wind glider · right handed · orange hair · squeaky toy

Trail: Start 21 → Clue 1 19 → Clue 2 12 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THEY DO NOT HAVE SPRING SHOES"

What number has 4 tens and 1 one? = 41 (T) · What number has 6 tens and 8 ones? = 68 (H) · What number has 8 tens and 9 ones? = 89 (E) · What number has 4 tens and 0 ones? = 40 (R) · What number has 1 ten and 7 ones? = 17 (D) · What number has 5 tens and 1 one? = 51 (A) · What number has 8 tens and 3 ones? = 83 (S) · What number has 4 tens and 4 ones? = 44 (Y) · What number has 9 tens and 5 ones? = 95 (V) · What number has 8 tens and 4 ones? = 84 (N) · What number has 2 tens and 9 ones? = 29 (P) · What number has 2 tens and 2 ones? = 22 (O) · What number has 3 tens and 8 ones? = 38 (I) · What number has 4 tens and 3 ones? = 43 (G)

Clue 2 (Addition): "THE BANDIT USED THEIR RIGHT HAND"

$12 + 28 = 40$ (T) · $45 + 22 = 67$ (A) · $32 + 59 = 91$ (E) · $15 + 10 = 25$ (G) · $34 + 60 = 94$ (I) · $19 + 30 = 49$ (N) · $13 + 19 = 32$ (D) · $34 + 55 = 89$ (R) · $44 + 19 = 63$ (S) · $23 + 10 = 33$ (H) · $18 + 32 = 50$ (B) · $34 + 22 = 56$ (U)

Clue 3 (Subtraction): "THEY RAN AWAY FROM A SQUEAKY TOY"

$18 - 3 = 15$ (T) · $49 - 14 = 35$ (Y) · $86 - 9 = 77$ (H) · $108 - 34 = 74$ (N) · $73 - 33 = 40$ (Q) · $49 - 32 = 17$ (O) · $75 - 37 = 38$ (K) · $31 - 11 = 20$ (M) · $47 - 14 = 33$ (W) · $98 - 31 = 67$ (F) · $66 - 3 = 63$ (E) · $61 - 12 = 49$ (A) · $52 - 36 = 16$ (R) · $88 - 37 = 51$ (U) · $55 - 26 = 29$ (S)

Clue 4 (Skip counting): "WE FOUND COLOURED ORANGE HAIR"

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, __, 12, 14 = 10 (W) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, __, 14, 16 = 12 (N) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, __, 24, 27 = 21 (G) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 = 25 (C) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, __, 30, 32 = 28 (L) · 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 10s. Fill the blank: 10, 20, 30, __, 50, 60 = 40 (H) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, __, 100, 110 = 90 (R) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, __, 26, 28 = 24 (D) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, __, 65, 70 = 60 (E) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, __, 18, 21 = 15 (U) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, __, 22, 24 = 20 (I) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, __, 28, 30 = 26 (F) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, __, 55, 60 = 50 (A)

Clue 5 (Missing addends): surviving statement is box 1 → Lily

$1 + \underline{\quad} = 5 = 4$ · $9 + \underline{\quad} = 17 = 8$ · $9 + \underline{\quad} = 18 = 9$ · $7 + \underline{\quad} = 17 = 10$ · $9 + \underline{\quad} = 20 = 11$ · $9 + \underline{\quad} = 16 = 7$ · $3 + \underline{\quad} = 15 = 12$ · $8 + \underline{\quad} = 11 = 3$ · $4 + \underline{\quad} = 10 = 6$ · $9 + \underline{\quad} = 11 = 2$ · $10 + \underline{\quad} = 15 = 5$