



The Secret Treehouse Mystery

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

Detective: _____ **Date:** _____

The Golden Compass is missing from our treehouse! A sneaky Trickster took it. We must find who did it before the sun goes down.

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 Trickster is _____

Possible suspects

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

NAME	FAVORITE TOOL	SECRET GADGET	FLASHLIGHT HAND	HAIR COLOR	DROPPED CLUE
Finn	Super Magnet	Jet Pack	Left Handed	Red Hair	Fruit Snacks
Zoe	Super Magnet	Bouncy Boots	Left Handed	Brown Hair	Fruit Snacks
Quinn	Super Magnet	Water Blaster	Right Handed	Blonde Hair	Fruit Snacks
Luke	Grappling Hook	Pocket Drone	Right Handed	Blonde Hair	Juice Boxes
Dan	Spy Camera	Pocket Drone	Left Handed	Red Hair	Juice Boxes
Lily	Grappling Hook	Pocket Drone	Left Handed	Blonde Hair	Fruit Snacks
Toby	Spy Camera	Water Blaster	Right Handed	Blonde Hair	Shiny Coins
Kate	Spy Camera	Bouncy Boots	Left Handed	Red Hair	Juice Boxes
Grace	Spy Camera	Night Goggles	Left Handed	Blonde Hair	Shiny Coins
Cody	Laser Pointer	Jet Pack	Left Handed	Brown Hair	Fruit Snacks
Mia	Grappling Hook	Bouncy Boots	Left Handed	Brown Hair	Shiny Coins
Sam	Spy Camera	Jet Pack	Right Handed	Blonde Hair	Shiny Coins
Hugo	Super Magnet	Water Blaster	Right Handed	Blonde Hair	Shiny Coins
Owen	Grappling Hook	Night Goggles	Left Handed	Brown Hair	Fruit Snacks
Emma	Walkie Talkie	Bouncy Boots	Right Handed	Blonde Hair	Shiny Coins
Noah	Grappling Hook	Pocket Drone	Right Handed	Blonde Hair	Shiny Coins
Leo	Spy Camera	Pocket Drone	Right Handed	Red Hair	Shiny Coins
Jack	Spy Camera	Bouncy Boots	Right Handed	Brown Hair	Juice Boxes
Ruby	Spy Camera	Night Goggles	Right Handed	Red Hair	Fruit Snacks
Piper	Laser Pointer	Water Blaster	Right Handed	Red Hair	Shiny Coins
Iris	Super Magnet	Water Blaster	Left Handed	Red Hair	Shiny Coins

CLUE 1 Addition

We need to count our magnifying glasses. We found four on the table and five in the drawer. How many do we have in all?

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

T			T											T				
8	15	11	8	15	20	11	4	6	10	11	14	19	10	8	15	17	3	11
											T							
2	10	7	19	16	18	2	10	10	8	14								

$3 + 5 = \square \rightarrow$ T	$10 + 8 = \square \rightarrow$ Y	$7 + 3 = \square \rightarrow$ O
$11 + 4 = \square \rightarrow$ H	$1 + 1 = \square \rightarrow$ B	$10 + 6 = \square \rightarrow$ C
$3 + 1 = \square \rightarrow$ F	$11 + 6 = \square \rightarrow$ A	$1 + 2 = \square \rightarrow$ V
$6 + 13 = \square \rightarrow$ N	$4 + 7 = \square \rightarrow$ E	$2 + 4 = \square \rightarrow$ D
$10 + 10 = \square \rightarrow$ I	$5 + 2 = \square \rightarrow$ U	$7 + 7 = \square \rightarrow$ S

Scratch space:

CLUE 2

Subtraction

We had ten walkie talkie batteries, but we dropped three into the creek. How many batteries do we have left?

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

T			T									T		
2	12	11	2	12	6	11	13	12	11	15	14	2	12	11

				T			T							T
15	6	16	12	2	6	5	2	12	11	6	4	4	6	16

12	9	5	14

$8 - 6 = \square \rightarrow \text{T}$

$13 - 8 = \square \rightarrow \text{N}$

$19 - 3 = \square \rightarrow \text{G}$

$18 - 6 = \square \rightarrow \text{H}$

$15 - 9 = \square \rightarrow \text{I}$

$9 - 5 = \square \rightarrow \text{R}$

$19 - 5 = \square \rightarrow \text{D}$

$17 - 4 = \square \rightarrow \text{F}$

$20 - 5 = \square \rightarrow \text{L}$

$17 - 8 = \square \rightarrow \text{A}$

$16 - 5 = \square \rightarrow \text{E}$

Scratch space:

CLUE 3 Skip counting

We see flashlight footprints in pairs. Let us count the boots by twos to see how many kids walked here.

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

T															
10	65	90	28	26	60	14	6	6	90	26	120	65	36	70	28
							T				T				
55	14	36	70	120	20	28	10	65	90	10	60	90	90		

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

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

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

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, __, 39, 42 → **I**

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

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

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, __, 130, 140 → **S**

Skip-count by 2s. Fill the blank: 2, 4, __, 8, 10 → **P**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, __, 80, 90 → **N**

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, __, 60, 65 → **C**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 → **H**

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

Scratch space:

CLUE 4 Place value

The spy decoder screen shows a secret code. It has one ten and seven ones. What number is the decoder showing?

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

W															
71	34	40	34	52	34	93	52	34	40	67	81	63	37	75	52
51	54	37	76	40	34	63	67	60	75						

What number has 7 tens and 1 one? → **W**

What number has 7 tens and 6 ones? → **N**

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

What number has 5 tens and 2 ones? → **T**

What number has 6 tens and 7 ones? → **A**

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

What number has 5 tens and 4 ones? → **L**

What number has 6 tens and 0 ones? → **I**

What number has 9 tens and 3 ones? → **C**

What number has 3 tens and 7 ones? → **O**

What number has 7 tens and 5 ones? → **R**

What number has 8 tens and 1 one? → **S**

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

What number has 6 tens and 3 ones? → **H**

Scratch space:

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

We need eight gold coins to open the lock. We only found five coins so far. How many more coins do we need?

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:

$2 + \underline{\quad} = 9$

$8 + \underline{\quad} = 14$

$2 + \underline{\quad} = 4$

$2 + \underline{\quad} = 10$

$9 + \underline{\quad} = 21$

$1 + \underline{\quad} = 2$

$5 + \underline{\quad} = 14$

$3 + \underline{\quad} = 14$

$4 + \underline{\quad} = 7$

$7 + \underline{\quad} = 11$

$8 + \underline{\quad} = 13$

Step 2 - cross out the sentence with each answer:

1. The villain uses the grappling hook to climb up, then sprays water from the water blaster.
2. The villain uses the grappling hook to climb up, then launches the pocket drone.
3. The villain pulls the keys with the super magnet, then flies away on the jet pack.
4. The villain calls for backup on the walkie talkie, then sprays water from the water blaster.
5. The villain calls for backup on the walkie talkie, then launches the pocket drone.
6. The villain snaps a photo with the spy camera, then flies away on the jet pack.
7. The villain snaps a photo with the spy camera, then sprays water from the water blaster.
8. The villain calls for backup on the walkie talkie, then jumps high with the bouncy boots.
9. The villain snaps a photo with the spy camera, then launches the pocket drone.
10. The villain pulls the keys with the super magnet, then sprays water from the water blaster.
11. The villain uses the grappling hook to climb up, then flies away on the jet pack.
12. The villain shines the bright laser pointer, then launches the pocket drone.

Answer Key

The Secret Treehouse Mystery

Culprit: Hugo

Super Magnet · Water Blaster · Right Handed · Blonde Hair · Shiny Coins

Trail: Start 21 → Clue 1 16 → Clue 2 9 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE THIEF DOES NOT HAVE BOUNCY BOOTS"

$3 + 5 = 8$ (T) · $10 + 8 = 18$ (Y) · $7 + 3 = 10$ (O) · $11 + 4 = 15$ (H) · $1 + 1 = 2$ (B) · $10 + 6 = 16$ (C) · $3 + 1 = 4$ (F) · $11 + 6 = 17$ (A) · $1 + 2 = 3$ (V) · $6 + 13 = 19$ (N) · $4 + 7 = 11$ (E) · $2 + 4 = 6$ (D) · $10 + 10 = 20$ (I) · $5 + 2 = 7$ (U) · $7 + 7 = 14$ (S)

Clue 2 (Subtraction): "THE THIEF HELD THE LIGHT IN THEIR RIGHT HAND"

$8 - 6 = 2$ (T) · $13 - 8 = 5$ (N) · $19 - 3 = 16$ (G) · $18 - 6 = 12$ (H) · $15 - 9 = 6$ (I) · $9 - 5 = 4$ (R) · $19 - 5 = 14$ (D) · $17 - 4 = 13$ (F) · $20 - 5 = 15$ (L) · $17 - 8 = 9$ (A) · $16 - 5 = 11$ (E)

Clue 3 (Skip counting): "THEY DROPPED SHINY COINS BY THE TREE"

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

Clue 4 (Place value): "WE DETECTED A SHORT BLONDE HAIR"

What number has 7 tens and 1 one? = 71 (W) · What number has 7 tens and 6 ones? = 76 (N) · What number has 5 tens and 1 one? = 51 (B) · What number has 5 tens and 2 ones? = 52 (T) · What number has 6 tens and 7 ones? = 67 (A) · What number has 3 tens and 4 ones? = 34 (E) · What number has 5 tens and 4 ones? = 54 (L) · What number has 6 tens and 0 ones? = 60 (I) · What number has 9 tens and 3 ones? = 93 (C) · What number has 3 tens and 7 ones? = 37 (O) · What number has 7 tens and 5 ones? = 75 (R) · What number has 8 tens and 1 one? = 81 (S) · What number has 4 tens and 0 ones? = 40 (D) · What number has 6 tens and 3 ones? = 63 (H)

Clue 5 (Missing addends): surviving statement is box 10 → Hugo

$2 + \underline{\quad} = 9 = 7$ · $8 + \underline{\quad} = 14 = 6$ · $2 + \underline{\quad} = 4 = 2$ · $2 + \underline{\quad} = 10 = 8$ · $9 + \underline{\quad} = 21 = 12$ · $1 + \underline{\quad} = 2 = 1$ · $5 + \underline{\quad} = 14 = 9$ · $3 + \underline{\quad} = 14 = 11$ · $4 + \underline{\quad} = 7 = 3$ · $7 + \underline{\quad} = 11 = 4$ · $8 + \underline{\quad} = 13 = 5$