



The Whispering Woods Treehouse Case

Grade 3 math · Multiplication, Rounding, Addition, Subtraction, Division · Reading level grades 3-4

Detective: _____ Date: _____

The golden spy walkie-talkie has been swiped from the high shelf of our secret base! The culprit left a trail of mysterious high-tech gear and strange disguises behind. It is up to our spy crew to crack the codes, track the clues, and find out which agent turned rogue before the secret treehouse plans are leaked!

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 rogue agent is _____

Possible suspects

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

NAME	SPECIAL GEAR	AGENT BADGE	WRITING HAND	DISGUISE WIG	DISTRACTION
Cole Casing	Mini Smoke Bombs	Shark Badge	Right-handed notes	Electric Blue Wig	Bubble Wrap
Owen Phantom	Mini Smoke Bombs	Falcon Badge	Right-handed notes	Bright Orange Wig	Squeaky Toy
Chase Shadow	Mini Smoke Bombs	Tiger Badge	Right-handed notes	Neon Green Wig	Bubble Wrap
Cody Black	Decoder Laser Pen	Falcon Badge	Right-handed notes	Electric Blue Wig	Bubble Wrap
Luke Wire	Night Vision Goggles	Tiger Badge	Right-handed notes	Neon Green Wig	Shiny Laser Pointer
Sam Goggles	Night Vision Goggles	Tiger Badge	Right-handed notes	Neon Green Wig	Squeaky Toy
Emma Gizmo	Night Vision Goggles	Bear Badge	Right-handed notes	Neon Green Wig	Squeaky Toy
Zoe Frost	Grappling Hook	Cobra Badge	Left-handed notes	Neon Green Wig	Bubble Wrap
Eli Agent	Mini Smoke Bombs	Tiger Badge	Right-handed notes	Electric Blue Wig	Bubble Wrap
Ava Decoder	Grappling Hook	Shark Badge	Right-handed notes	Neon Green Wig	Bubble Wrap
Leo Swift	Super Jet Boots	Shark Badge	Right-handed notes	Electric Blue Wig	Shiny Laser Pointer
Mia Whispers	Night Vision Goggles	Tiger Badge	Left-handed notes	Neon Green Wig	Bubble Wrap
Max Stealth	Mini Smoke Bombs	Shark Badge	Right-handed notes	Neon Green Wig	Squeaky Toy
Jack Tracker	Super Jet Boots	Shark Badge	Left-handed notes	Neon Green Wig	Squeaky Toy
Ian Sneak	Night Vision Goggles	Tiger Badge	Right-handed notes	Bright Orange Wig	Shiny Laser Pointer
Nancy Drew	Mini Smoke Bombs	Falcon Badge	Right-handed notes	Neon Green Wig	Squeaky Toy
Kira Cipher	Decoder Laser Pen	Cobra Badge	Left-handed notes	Electric Blue Wig	Squeaky Toy
Maya Blade	Grappling Hook	Cobra Badge	Left-handed notes	Bright Orange Wig	Shiny Laser Pointer
Lily Signal	Decoder Laser Pen	Shark Badge	Left-handed notes	Neon Green Wig	Bubble Wrap
Ben Scope	Night Vision Goggles	Bear Badge	Right-handed notes	Neon Green Wig	Shiny Laser Pointer
Alex Rider	Night Vision Goggles	Cobra Badge	Right-handed notes	Neon Green Wig	Squeaky Toy

CLUE 1

Multiplication facts (1-12)

To open the top-secret gadget drawer, we need to count the rows of spy flashlights.

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

T																T
144	88	81	100	96	28	28	6	96	30	10	44	81	32	30	44	144

				T												
88	6	100	81	144	88	81	8	81	6	33	8	6	10	25	81	

$12 \times 12 = \square \rightarrow \text{T}$

$8 \times 4 = \square \rightarrow \text{S}$

$11 \times 8 = \square \rightarrow \text{H}$

$11 \times 3 = \square \rightarrow \text{R}$

$9 \times 9 = \square \rightarrow \text{E}$

$5 \times 5 = \square \rightarrow \text{G}$

$11 \times 4 = \square \rightarrow \text{O}$

$5 \times 6 = \square \rightarrow \text{N}$

$4 \times 7 = \square \rightarrow \text{L}$

$2 \times 5 = \square \rightarrow \text{D}$

$3 \times 2 = \square \rightarrow \text{A}$

$10 \times 10 = \square \rightarrow \text{V}$

$8 \times 1 = \square \rightarrow \text{B}$

$12 \times 8 = \square \rightarrow \text{I}$

Scratch space:

CLUE 2 Rounding

Our fuzzy motion radar only displays rounded numbers, but it will help us trace the agent.

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

T									T										
5000	90	600	4000	60	4000	7000	600	6000	5000	30	300	9000	5000	600	900	9000	5000	600	4000
		T		T									T						
30	70	5000	90	5000	90	600	70	300	300	70	3000	90	5000	90	8000	900	700		

Round 4,686 to the nearest thousand → **T**

Round 331 to the nearest hundred → **R**

Round 7,182 to the nearest thousand → **P**

Round 854 to the nearest hundred → **N**

Round 67 to the nearest ten → **I**

Round 9,388 to the nearest thousand → **O**

Round 3,725 to the nearest thousand → **S**

Round 92 to the nearest ten → **H**

Round 7,534 to the nearest thousand → **A**

Round 3,189 to the nearest thousand → **G**

Round 6,273 to the nearest thousand → **C**

Round 61 to the nearest ten → **U**

Round 653 to the nearest hundred → **D**

Round 556 to the nearest hundred → **E**

Round 26 to the nearest ten → **W**

Scratch space:

CLUE 3 Addition

We need to add up all the microchips we recovered from the treehouse floor.

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

T																				
542	295	639	327	849	233	751	639	689	410	751	639	918	895	639	632	282	295	639	774	

T																T		
542	295	639	903	689	918	282	918	689	410	751	639	918	552	903	542	849	903	

$250 + 292 = \square \rightarrow$ T	$290 + 484 = \square \rightarrow$ N	$592 + 257 = \square \rightarrow$ O
$190 + 105 = \square \rightarrow$ H	$205 + 205 = \square \rightarrow$ Q	$570 + 333 = \square \rightarrow$ Y
$383 + 249 = \square \rightarrow$ D	$617 + 301 = \square \rightarrow$ A	$472 + 217 = \square \rightarrow$ S
$538 + 357 = \square \rightarrow$ L	$410 + 229 = \square \rightarrow$ E	$143 + 139 = \square \rightarrow$ W
$313 + 438 = \square \rightarrow$ U	$330 + 222 = \square \rightarrow$ K	$128 + 199 = \square \rightarrow$ R
$83 + 150 = \square \rightarrow$ G		

Scratch space:

CLUE 4

Subtraction

Let us calculate how many water balloons we have left after the practice battle.

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

W																	
717	552	270	371	811	121	834	160	390	896	367	121	834	160	371	270	367	
121	552	371	121	107	896	552	552	121	834	423	160	107	811	423	160	552	

$952 - 235 = \square \rightarrow \boxed{\text{W}}$

$689 - 266 = \square \rightarrow \boxed{\text{I}}$

$892 - 340 = \square \rightarrow \boxed{\text{E}}$

$661 - 391 = \square \rightarrow \boxed{\text{F}}$

$831 - 20 = \square \rightarrow \boxed{\text{U}}$

$201 - 80 = \square \rightarrow \boxed{\text{N}}$

$654 - 287 = \square \rightarrow \boxed{\text{A}}$

$855 - 21 = \square \rightarrow \boxed{\text{D}}$

$732 - 342 = \square \rightarrow \boxed{\text{T}}$

$318 - 211 = \square \rightarrow \boxed{\text{G}}$

$985 - 89 = \square \rightarrow \boxed{\text{R}}$

$200 - 40 = \square \rightarrow \boxed{\text{S}}$

$413 - 42 = \square \rightarrow \boxed{\text{O}}$

Scratch space:

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

We must split these secret decoder rings equally among our team members to reveal the final clue.

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:

$8 \div 8 = \boxed{}$

$120 \div 10 = \boxed{}$

$42 \div 6 = \boxed{}$

$20 \div 5 = \boxed{}$

$45 \div 9 = \boxed{}$

$54 \div 6 = \boxed{}$

$33 \div 3 = \boxed{}$

$10 \div 1 = \boxed{}$

$36 \div 12 = \boxed{}$

$64 \div 8 = \boxed{}$

$12 \div 2 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain sneaks through the dark forest, then flashes a golden tiger emblem.
2. The villain escapes in a cloud of grey smoke, then leaves a silver falcon feather.
3. The villain sneaks through the dark forest, then drops a plastic toy shark.
4. The villain shines a glowing green beam, then hisses like a wild snake.
5. The villain shines a glowing green beam, then flashes a golden tiger emblem.
6. The villain blasts over the tall wall, then flashes a golden tiger emblem.
7. The villain sneaks through the dark forest, then hisses like a wild snake.
8. The villain blasts over the tall wall, then drops a plastic toy shark.
9. The villain blasts over the tall wall, then hisses like a wild snake.
10. The villain escapes in a cloud of grey smoke, then flashes a golden tiger emblem.
11. The villain blasts over the tall wall, then makes a loud bear growl.
12. The villain escapes in a cloud of grey smoke, then drops a plastic toy shark.

Answer Key

The Whispering Woods Treehouse Case

Culprit: Nancy Drew

Mini Smoke Bombs · Falcon Badge · Right-handed notes · Neon Green Wig · Squeaky Toy

Trail: Start 21 → Clue 1 19 → Clue 2 13 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE VILLAIN DOES NOT HAVE THE BEAR BADGE"

$12 \times 12 = 144$ (T) · $8 \times 4 = 32$ (S) · $11 \times 8 = 88$ (H) · $11 \times 3 = 33$ (R) · $9 \times 9 = 81$ (E) · $5 \times 5 = 25$ (G) · $11 \times 4 = 44$ (O) · $5 \times 6 = 30$ (N) · $4 \times 7 = 28$ (L) · $2 \times 5 = 10$ (D) · $3 \times 2 = 6$ (A) · $10 \times 10 = 100$ (V) · $8 \times 1 = 8$ (B) · $12 \times 8 = 96$ (I)

Clue 2 (Rounding): "THE SUSPECT WROTE NOTES WITH THEIR RIGHT HAND"

Round 4,686 to the nearest thousand = 5000 (T) · Round 331 to the nearest hundred = 300 (R) · Round 7,182 to the nearest thousand = 7000 (P) · Round 854 to the nearest hundred = 900 (N) · Round 67 to the nearest ten = 70 (I) · Round 9,388 to the nearest thousand = 9000 (O) · Round 3,725 to the nearest thousand = 4000 (S) · Round 92 to the nearest ten = 90 (H) · Round 7,534 to the nearest thousand = 8000 (A) · Round 3,189 to the nearest thousand = 3000 (G) · Round 6,273 to the nearest thousand = 6000 (C) · Round 61 to the nearest ten = 60 (U) · Round 653 to the nearest hundred = 700 (D) · Round 556 to the nearest hundred = 600 (E) · Round 26 to the nearest ten = 30 (W)

Clue 3 (Addition): "THE ROGUE SQUEALED WHEN THEY SAW A SQUEAKY TOY"

$250 + 292 = 542$ (T) · $290 + 484 = 774$ (N) · $592 + 257 = 849$ (O) · $190 + 105 = 295$ (H) · $205 + 205 = 410$ (Q) · $570 + 333 = 903$ (Y) · $383 + 249 = 632$ (D) · $617 + 301 = 918$ (A) · $472 + 217 = 689$ (S) · $538 + 357 = 895$ (L) · $410 + 229 = 639$ (E) · $143 + 139 = 282$ (W) · $313 + 438 = 751$ (U) · $330 + 222 = 552$ (K) · $128 + 199 = 327$ (R) · $83 + 150 = 233$ (G)

Clue 4 (Subtraction): "WE FOUND STRANDS OF A NEON GREEN DISGUISE"

$952 - 235 = 717$ (W) · $689 - 266 = 423$ (I) · $892 - 340 = 552$ (E) · $661 - 391 = 270$ (F) · $831 - 20 = 811$ (U) · $201 - 80 = 121$ (N) · $654 - 287 = 367$ (A) · $855 - 21 = 834$ (D) · $732 - 342 = 390$ (T) · $318 - 211 = 107$ (G) · $985 - 89 = 896$ (R) · $200 - 40 = 160$ (S) · $413 - 42 = 371$ (O)

Clue 5 (Division facts (1-12)): surviving statement is box 2 → Nancy Drew

$8 \div 8 = 1$ · $120 \div 10 = 12$ · $42 \div 6 = 7$ · $20 \div 5 = 4$ · $45 \div 9 = 5$ · $54 \div 6 = 9$ · $33 \div 3 = 11$ · $10 \div 1 = 10$ · $36 \div 12 = 3$ · $64 \div 8 = 8$ · $12 \div 2 = 6$