



The Canopy Treehouse Caper

Grade 5 math · Multiplication, Subtraction, Addition, Rounding, Division · Reading level grades 3-4

Detective: _____ Date: _____

The legendary Golden Compass has vanished from the Canopy Library! A rogue explorer must have slipped through the branches while everyone was resting. Gather your gear and help the Canopy Scouts follow the clues to catch the thief!

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 explorer is _____

Possible suspects

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

NAME	CLIMBING STYLE	SPECIAL GEAR	OBSERVED HABIT	HAIR COLOR	SECRET FEAR
Lara Croft	tree vaulting	signal whistle	right-handed	red hair	afraid of heights
Diego Marquez	vine climbing	pocket drone	left-handed	red hair	scared of frogs
Indiana Jones	bridge sprinting	signal whistle	left-handed	red hair	afraid of heights
Phileas Fogg	rope swinging	signal whistle	right-handed	blonde hair	scared of frogs
Sacagawea	rope swinging	night vision goggles	right-handed	brown hair	afraid of heights
Jane Goodall	bridge sprinting	night vision goggles	right-handed	red hair	scared of frogs
Steve Irwin	vine climbing	grappling hook	left-handed	blonde hair	afraid of heights
Amelia Earhart	rope swinging	night vision goggles	right-handed	red hair	allergic to pollen
Marco Polo	canopy gliding	grappling hook	right-handed	brown hair	afraid of heights
Huckleberry Finn	canopy gliding	grappling hook	left-handed	brown hair	scared of frogs
Wendy Darling	bridge sprinting	grappling hook	left-handed	brown hair	scared of frogs
Jane Porter	bridge sprinting	signal whistle	right-handed	brown hair	allergic to pollen
Lewis Clark	canopy gliding	signal whistle	left-handed	red hair	afraid of heights
Daniel Boone	bridge sprinting	decoy balloon	left-handed	red hair	afraid of heights
Jack Sparrow	tree vaulting	night vision goggles	left-handed	red hair	allergic to pollen
Tom Sawyer	tree vaulting	decoy balloon	left-handed	blonde hair	allergic to pollen
Nellie Bly	rope swinging	grappling hook	left-handed	red hair	afraid of heights
James Cook	rope swinging	grappling hook	right-handed	red hair	afraid of heights
Nathan Drake	canopy gliding	signal whistle	left-handed	brown hair	allergic to pollen
Robin Hood	tree vaulting	pocket drone	left-handed	red hair	afraid of heights
Dora Marquez	canopy gliding	grappling hook	left-handed	blonde hair	allergic to pollen

CLUE 1
Multiplication facts (1-12)

We find a box of dropped climbing spikes left on the grass. They are arranged in neat rows. If we multiply the rows together, we will get our first clue.

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

T																T
21	40	77	121	32	84	84	120	32	96	6	11	77	72	96	11	21
										T						
40	120	121	77	120	20	11	64	33	77	21	6	56	11	96	77	

$3 \times 7 = \square \rightarrow$ T	$12 \times 7 = \square \rightarrow$ L	$3 \times 11 = \square \rightarrow$ K
$8 \times 8 = \square \rightarrow$ C	$12 \times 10 = \square \rightarrow$ A	$8 \times 7 = \square \rightarrow$ R
$10 \times 2 = \square \rightarrow$ P	$12 \times 8 = \square \rightarrow$ N	$10 \times 4 = \square \rightarrow$ H
$7 \times 11 = \square \rightarrow$ E	$11 \times 11 = \square \rightarrow$ V	$3 \times 2 = \square \rightarrow$ D
$8 \times 4 = \square \rightarrow$ I	$12 \times 6 = \square \rightarrow$ S	$11 \times 1 = \square \rightarrow$ O

Scratch space:

CLUE 2 Subtraction

The thief dropped shiny gold coins along the dusty trail. We must compare them to the coins left in our supply pouch. Subtracting the difference reveals the path.

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

T 2919	1794	6278	T 2919	1794	2913	6278	7501	1794	6278	4665	8462	T 2919	1794	6278	1782	8914	5744
2913	2046	T 2919	1794	6278	2913	8210	4665	6278	7501	T 2919	1794	8914	2046	8462			

$3180 - 261 = \square \rightarrow \boxed{\text{T}}$	$9211 - 1710 = \square \rightarrow \boxed{\text{F}}$	$6106 - 3193 = \square \rightarrow \boxed{\text{I}}$
$13903 - 4989 = \square \rightarrow \boxed{\text{A}}$	$4645 - 2599 = \square \rightarrow \boxed{\text{N}}$	$3380 - 1598 = \square \rightarrow \boxed{\text{M}}$
$8324 - 3659 = \square \rightarrow \boxed{\text{L}}$	$3404 - 1610 = \square \rightarrow \boxed{\text{H}}$	$10189 - 1727 = \square \rightarrow \boxed{\text{D}}$
$11231 - 3021 = \square \rightarrow \boxed{\text{R}}$	$7292 - 1548 = \square \rightarrow \boxed{\text{P}}$	$10969 - 4691 = \square \rightarrow \boxed{\text{E}}$

Scratch space:

CLUE 3 Addition

Our scouts count the broken branches on both the high path and the low path. Let us add them together to find the next hint.

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

T			T																
2487	8298	3442	2487	8298	5804	3442	9313	2522	8298	5804	7986	3442	3413	3442	6236	7339	8298	3442	5939
2158	2026	2026	7536	5804	5939	9250	6236	2026	7339	5939									

$1592 + 895 = \square \rightarrow \text{T}$	$4516 + 3470 = \square \rightarrow \text{V}$	$1262 + 896 = \square \rightarrow \text{L}$
$895 + 1627 = \square \rightarrow \text{S}$	$1849 + 1593 = \square \rightarrow \text{E}$	$1219 + 807 = \square \rightarrow \text{O}$
$5449 + 3864 = \square \rightarrow \text{F}$	$3874 + 2362 = \square \rightarrow \text{D}$	$5372 + 2926 = \square \rightarrow \text{H}$
$4360 + 2979 = \square \rightarrow \text{W}$	$2232 + 1181 = \square \rightarrow \text{R}$	$3281 + 2658 = \square \rightarrow \text{N}$
$6243 + 3007 = \square \rightarrow \text{G}$	$3509 + 2295 = \square \rightarrow \text{I}$	$2379 + 5157 = \square \rightarrow \text{K}$

Scratch space:

CLUE 4

Rounding

Our hand-held tracker shows a fuzzy distance number on the screen. We must round it to the nearest ten to get a clean signal.

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

W																			
5000	4300	70	90	1700	300	30	110	3700	2900	900	300	30	110	90	70	2900	4300	30	
2300	900	7000	2900	90	300	3700	2300	4300	2900	90	50	4300							

Round 4,681 to the nearest thousand → **W**

Round 7,125 to the nearest thousand → **I**

Round 107 to the nearest ten → **S**

Round 30 to the nearest ten → **D**

Round 324 to the nearest hundred → **N**

Round 2,856 to the nearest hundred → **R**

Round 51 to the nearest ten → **P**

Round 4,264 to the nearest hundred → **E**

Round 91 to the nearest ten → **O**

Round 3,739 to the nearest hundred → **T**

Round 859 to the nearest hundred → **A**

Round 1,728 to the nearest hundred → **U**

Round 2,343 to the nearest hundred → **H**

Round 74 to the nearest ten → **F**

Scratch space:

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

We find a pack of energy bars dropped on the forest floor. If we share them equally among our rescue team, we can solve this final riddle.

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:

$33 \div 3 = \boxed{}$

$33 \div 11 = \boxed{}$

$48 \div 6 = \boxed{}$

$60 \div 10 = \boxed{}$

$72 \div 6 = \boxed{}$

$44 \div 11 = \boxed{}$

$90 \div 9 = \boxed{}$

$4 \div 2 = \boxed{}$

$63 \div 7 = \boxed{}$

$49 \div 7 = \boxed{}$

$2 \div 2 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain scrambles up the tallest ivy vine, then shoots a grappling hook onto a high branch.
2. The villain glides silently over the tree line, then launches a pocket drone to scout ahead.
3. The villain swings across the river on a thick rope, then shoots a grappling hook onto a high branch.
4. The villain glides silently over the tree line, then inflates a decoy balloon to trick the guards.
5. The villain glides silently over the tree line, then blows a loud signal whistle to scare the birds.
6. The villain leaps over a fallen log with a giant pole vault, then inflates a decoy balloon to trick the guards.
7. The villain leaps over a fallen log with a giant pole vault, then blows a loud signal whistle to scare the birds.
8. The villain dashes across the shaking rope bridge, then blows a loud signal whistle to scare the birds.
9. The villain dashes across the shaking rope bridge, then launches a pocket drone to scout ahead.
10. The villain swings across the river on a thick rope, then uses night vision goggles to navigate the dark.
11. The villain dashes across the shaking rope bridge, then inflates a decoy balloon to trick the guards.
12. The villain dashes across the shaking rope bridge, then shoots a grappling hook onto a high branch.

Answer Key

The Canopy Treehouse Caper

Culprit: Lewis Clark

canopy gliding · signal whistle · left-handed · red hair · afraid of heights

Trail: Start 21 → Clue 1 19 → Clue 2 11 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE VILLAIN DOES NOT HAVE A POCKET DRONE"

$3 \times 7 = 21$ (T) · $12 \times 7 = 84$ (L) · $3 \times 11 = 33$ (K) · $8 \times 8 = 64$ (C) · $12 \times 10 = 120$ (A) · $8 \times 7 = 56$ (R) · $10 \times 2 = 20$ (P) · $12 \times 8 = 96$ (N) · $10 \times 4 = 40$ (H) · $7 \times 11 = 77$ (E) · $11 \times 11 = 121$ (V) · $3 \times 2 = 6$ (D) · $8 \times 4 = 32$ (I) · $12 \times 6 = 72$ (S) · $11 \times 1 = 11$ (O)

Clue 2 (Subtraction): "THE THIEF HELD THE MAP IN THEIR LEFT HAND"

$3180 - 261 = 2919$ (T) · $9211 - 1710 = 7501$ (F) · $6106 - 3193 = 2913$ (I) · $13903 - 4989 = 8914$ (A) · $4645 - 2599 = 2046$ (N) · $3380 - 1598 = 1782$ (M) · $8324 - 3659 = 4665$ (L) · $3404 - 1610 = 1794$ (H) · $10189 - 1727 = 8462$ (D) · $11231 - 3021 = 8210$ (R) · $7292 - 1548 = 5744$ (P) · $10969 - 4691 = 6278$ (E)

Clue 3 (Addition): "THE THIEF SHIVERED WHEN LOOKING DOWN"

$1592 + 895 = 2487$ (T) · $4516 + 3470 = 7986$ (V) · $1262 + 896 = 2158$ (L) · $895 + 1627 = 2522$ (S) · $1849 + 1593 = 3442$ (E) · $1219 + 807 = 2026$ (O) · $5449 + 3864 = 9313$ (F) · $3874 + 2362 = 6236$ (D) · $5372 + 2926 = 8298$ (H) · $4360 + 2979 = 7339$ (W) · $2232 + 1181 = 3413$ (R) · $3281 + 2658 = 5939$ (N) · $6243 + 3007 = 9250$ (G) · $3509 + 2295 = 5804$ (I) · $2379 + 5157 = 7536$ (K)

Clue 4 (Rounding): "WE FOUND STRANDS OF RED HAIR ON THE ROPE"

Round 4,681 to the nearest thousand = 5000 (W) · Round 7,125 to the nearest thousand = 7000 (I) · Round 107 to the nearest ten = 110 (S) · Round 30 to the nearest ten = 30 (D) · Round 324 to the nearest hundred = 300 (N) · Round 2,856 to the nearest hundred = 2900 (R) · Round 51 to the nearest ten = 50 (P) · Round 4,264 to the nearest hundred = 4300 (E) · Round 91 to the nearest ten = 90 (O) · Round 3,739 to the nearest hundred = 3700 (T) · Round 859 to the nearest hundred = 900 (A) · Round 1,728 to the nearest hundred = 1700 (U) · Round 2,343 to the nearest hundred = 2300 (H) · Round 74 to the nearest ten = 70 (F)

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

$33 \div 3 = 11$ · $33 \div 11 = 3$ · $48 \div 6 = 8$ · $60 \div 10 = 6$ · $72 \div 6 = 12$ · $44 \div 11 = 4$ · $90 \div 9 = 10$ · $4 \div 2 = 2$ · $63 \div 7 = 9$ · $49 \div 7 = 7$ · $2 \div 2 = 1$