



The Treehouse Canopy Caper

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

Detective: _____ **Date:** _____

The legendary Golden Compass has vanished from the high branches! The Chief Mapmaker is lost without it. One of the jungle explorers is secretly the treehouse bandit. We must climb the canopy, solve the puzzles, and find the thief before they escape!

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 treehouse bandit is _____

Possible suspects

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

NAME	CANOPY TOOL	ESCAPE GEAR	WRITING HAND	HAIR STYLE	SECRET WEAKNESS
Luke	rope ladder	mega magnet	left handed	sunset orange	banana peels
Ruby	rope ladder	net launcher	right handed	muddy brown	tickle feathers
Sam	rope ladder	mega magnet	right handed	muddy brown	banana peels
Zack	glider wings	sonar goggles	left handed	sunset orange	banana peels
Lily	glider wings	net launcher	left handed	muddy brown	bright light
Eli	grappling hook	smoke bombs	right handed	muddy brown	tickle feathers
Abby	bamboo stilts	sonar goggles	right handed	muddy brown	bright light
Cole	vine swing	mega magnet	left handed	muddy brown	bright light
Mia	grappling hook	sonar goggles	right handed	muddy brown	tickle feathers
Iris	glider wings	net launcher	right handed	sunset orange	banana peels
Zoe	rope ladder	flash powder	right handed	wild blonde	tickle feathers
Max	vine swing	mega magnet	left handed	muddy brown	banana peels
Luna	glider wings	flash powder	left handed	muddy brown	tickle feathers
Maya	rope ladder	flash powder	left handed	muddy brown	bright light
Sasha	bamboo stilts	smoke bombs	left handed	wild blonde	banana peels
Otis	glider wings	mega magnet	left handed	muddy brown	bright light
Owen	vine swing	sonar goggles	left handed	sunset orange	bright light
Jack	rope ladder	smoke bombs	left handed	sunset orange	tickle feathers
Finn	bamboo stilts	smoke bombs	left handed	wild blonde	tickle feathers
Ben	vine swing	smoke bombs	left handed	muddy brown	bright light
Toby	glider wings	mega magnet	left handed	muddy brown	banana peels

CLUE 1 Rounding

The treehouse radar scan estimates how high the thief jumped. The monitor only shows rounded numbers, but rounding to the nearest ten reveals our first clue.

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

T								T							T			
70	5000	2300	900	230	290	30	300	70	30	7000	2300	130	290	7000	70	430	130	2300
			T															
230	290	2300	70	110	230	430	290	2900	5000	2300	90							

Round 69 to the nearest ten →

T

Round 263 to the nearest hundred →

I

Round 88 to the nearest ten →

R

Round 895 to the nearest hundred →

B

Round 6,978 to the nearest thousand →

O

Round 292 to the nearest ten →

N

Round 27 to the nearest ten →

D

Round 232 to the nearest ten →

A

Round 4,663 to the nearest thousand →

H

Round 2,864 to the nearest hundred →

C

Round 113 to the nearest ten →

L

Round 2,319 to the nearest hundred →

E

Round 431 to the nearest ten →

U

Round 130 to the nearest ten →

S

Scratch space:

CLUE 2 Addition

We found footprints on the wooden bridge. Adding up all the steps from both sides of the river will show us where the thief ran next.

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

T									T						T					
5292	4513	9706	5947	3441	5952	4947	5274	5292	5435	8235	9706	4947	5292	4513	9706	5274	9873			

			T					T								T
7442	9706	8188	5292	4513	3441	5952	4947	5292	5071	8235	2248	5274	5604	9706	5274	5292

$1864 + 3428 = \square \rightarrow \text{[T]}$	$1916 + 1525 = \square \rightarrow \text{[A]}$	$3427 + 2520 = \square \rightarrow \text{[B]}$
$4260 + 3928 = \square \rightarrow \text{[F]}$	$3063 + 2889 = \square \rightarrow \text{[N]}$	$2594 + 2353 = \square \rightarrow \text{[D]}$
$3231 + 1840 = \square \rightarrow \text{[O]}$	$2424 + 2089 = \square \rightarrow \text{[H]}$	$3961 + 4274 = \square \rightarrow \text{[S]}$
$2330 + 3274 = \square \rightarrow \text{[P]}$	$3526 + 3916 = \square \rightarrow \text{[L]}$	$1196 + 1052 = \square \rightarrow \text{[W]}$
$3156 + 2279 = \square \rightarrow \text{[U]}$	$2248 + 3026 = \square \rightarrow \text{[I]}$	$3010 + 6863 = \square \rightarrow \text{[R]}$
$3166 + 6540 = \square \rightarrow \text{[E]}$		

Scratch space:

Subtraction

The thief dropped a pouch of shiny jungle gems. If we subtract the lost gems from the total count, we can find out what is missing.

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

Diagram illustrating a sequence of numbers arranged in two rows. The top row contains 18 boxes, with the first and 16th boxes highlighted in orange and labeled 'B'. The bottom row contains 12 boxes, with the 7th box highlighted in orange and labeled 'B'. The numbers below the boxes are as follows:

Row	Box 1	Box 2	Box 3	Box 4	Box 5	Box 6	Box 7	Box 8	Box 9	Box 10	Box 11	Box 12	Box 13	Box 14	Box 15	Box 16	Box 17	Box 18
Top Row	B															B		
	1051	8765	6732	7332	8457	5819	6839	6732	7332	8457	5819	8948	6732	6839	6839	1051	6839	6732
	5819	8457	7883	1965	8457	6594	7496	4812	B									
									1051	6594	3100	7496	6732	5819				

$1198 - 147 = \boxed{} \rightarrow \boxed{\text{B}}$

$$13666 - 4901 = \boxed{} \rightarrow \boxed{\text{R}}$$

$$6791 - 1979 = \boxed{} \rightarrow \boxed{\text{Y}}$$

$11197 - 4358 = \boxed{} \rightarrow \boxed{\text{L}}$

$$9355 - 2023 = \boxed{} \rightarrow \boxed{\mathbf{G}}$$

$$12210 - 3753 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$12059 - 3111 = \boxed{} \rightarrow \boxed{\mathbf{W}}$$

$$3556 - 456 = \boxed{} \rightarrow \boxed{\text{N}}$$

$$8113 - 1519 = \boxed{} \rightarrow \boxed{\text{A}}$$

$$8219 - 1487 = \boxed{} \rightarrow \boxed{}$$

$12875 - 4992 = \boxed{} \rightarrow \boxed{\text{E}}$

$$11775 - 4279 = \boxed{} \rightarrow \boxed{\text{D}}$$

$$6408 - 589 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$6928 - 4963 = \boxed{} \rightarrow \boxed{\text{S}}$$

Scratch space:

CLUE 4
Multiplication facts (1-12)

We found rows of mysterious muddy bootprints. Counting the rows and multiplying them by the prints in each row points us to the next clue.

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

M																
60	5	40	40	99	96	144	24	49	66	88	16	11	144	49	16	3
54	16	5	18	88	72	24	66	16	96	144	16	66	54	88		

$6 \times 10 = \square \rightarrow$ M	$8 \times 12 = \square \rightarrow$ B	$6 \times 11 = \square \rightarrow$ N	
$5 \times 1 = \square \rightarrow$ U	$9 \times 8 = \square \rightarrow$ T	$6 \times 9 = \square \rightarrow$ C	$2 \times 8 = \square \rightarrow$ A
$11 \times 9 = \square \rightarrow$ Y	$1 \times 3 = \square \rightarrow$ S	$10 \times 4 = \square \rightarrow$ D	
$2 \times 9 = \square \rightarrow$ G	$12 \times 12 = \square \rightarrow$ R	$7 \times 7 = \square \rightarrow$ W	
$2 \times 12 = \square \rightarrow$ O	$1 \times 11 = \square \rightarrow$ I	$11 \times 8 = \square \rightarrow$ H	

Scratch space:

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

The explorers need to share the rescue ropes equally. Splitting the rope bundle among the search teams gives us the final secret code.

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:

$63 \div 9 = \boxed{}$

$48 \div 12 = \boxed{}$

$99 \div 9 = \boxed{}$

$36 \div 4 = \boxed{}$

$40 \div 4 = \boxed{}$

$25 \div 5 = \boxed{}$

$12 \div 1 = \boxed{}$

$64 \div 8 = \boxed{}$

$33 \div 11 = \boxed{}$

$8 \div 8 = \boxed{}$

$24 \div 4 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain marched past the mud on bamboo stilts, then blinded the lookout using flash powder.
2. The villain soared through the trees with glider wings, then pulled the keys away with a mega magnet.
3. The villain soared through the trees with glider wings, then navigated the dark with sonar goggles.
4. The villain climbed up high on a rope ladder, then blinded the lookout using flash powder.
5. The villain scaled the tree with a grappling hook, then blinded the lookout using flash powder.
6. The villain scaled the tree with a grappling hook, then escaped in a cloud of smoke bombs.
7. The villain zipped between branches on a vine swing, then pulled the keys away with a mega magnet.
8. The villain scaled the tree with a grappling hook, then navigated the dark with sonar goggles.
9. The villain marched past the mud on bamboo stilts, then pulled the keys away with a mega magnet.
10. The villain soared through the trees with glider wings, then blinded the lookout using flash powder.
11. The villain zipped between branches on a vine swing, then escaped in a cloud of smoke bombs.
12. The villain zipped between branches on a vine swing, then blinded the lookout using flash powder.

Answer Key

The Treehouse Canopy Caper

Culprit: Otis

glider wings · mega magnet · left handed · muddy brown · bright light

Trail: Start 21 → Clue 1 18 → Clue 2 13 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE BANDIT DOES NOT USE A NET LAUNCHER"

Round 69 to the nearest ten = 70 (T) · Round 263 to the nearest hundred = 300 (I) · Round 88 to the nearest ten = 90 (R) · Round 895 to the nearest hundred = 900 (B) · Round 6,978 to the nearest thousand = 7000 (O) · Round 292 to the nearest ten = 290 (N) · Round 27 to the nearest ten = 30 (D) · Round 232 to the nearest ten = 230 (A) · Round 4,663 to the nearest thousand = 5000 (H) · Round 2,864 to the nearest hundred = 2900 (C) · Round 113 to the nearest ten = 110 (L) · Round 2,319 to the nearest hundred = 2300 (E) · Round 431 to the nearest ten = 430 (U) · Round 130 to the nearest ten = 130 (S)

Clue 2 (Addition): "THE BANDIT USED THEIR LEFT HAND TO SWIPE IT"

$1864 + 3428 = 5292$ (T) · $1916 + 1525 = 3441$ (A) · $3427 + 2520 = 5947$ (B) · $4260 + 3928 = 8188$ (F) · $3063 + 2889 = 5952$ (N) · $2594 + 2353 = 4947$ (D) · $3231 + 1840 = 5071$ (O) · $2424 + 2089 = 4513$ (H) · $3961 + 4274 = 8235$ (S) · $2330 + 3274 = 5604$ (P) · $3526 + 3916 = 7442$ (L) · $1196 + 1052 = 2248$ (W) · $3156 + 2279 = 5435$ (U) · $2248 + 3026 = 5274$ (I) · $3010 + 6863 = 9873$ (R) · $3166 + 6540 = 9706$ (E)

Clue 3 (Subtraction): "BRIGHT LIGHT WILL BLIND THE SHADY BANDIT"

$1198 - 147 = 1051$ (B) · $13666 - 4901 = 8765$ (R) · $6791 - 1979 = 4812$ (Y) · $11197 - 4358 = 6839$ (L) · $9355 - 2023 = 7332$ (G) · $12210 - 3753 = 8457$ (H) · $12059 - 3111 = 8948$ (W) · $3556 - 456 = 3100$ (N) · $8113 - 1519 = 6594$ (A) · $8219 - 1487 = 6732$ (I) · $12875 - 4992 = 7883$ (E) · $11775 - 4279 = 7496$ (D) · $6408 - 589 = 5819$ (T) · $6928 - 4963 = 1965$ (S)

Clue 4 (Multiplication facts (1-12)): "MUDDY BROWN HAIR WAS CAUGHT ON A BRANCH"

$6 \times 10 = 60$ (M) · $8 \times 12 = 96$ (B) · $6 \times 11 = 66$ (N) · $5 \times 1 = 5$ (U) · $9 \times 8 = 72$ (T) · $6 \times 9 = 54$ (C) · $2 \times 8 = 16$ (A) · $11 \times 9 = 99$ (Y) · $1 \times 3 = 3$ (S) · $10 \times 4 = 40$ (D) · $2 \times 9 = 18$ (G) · $12 \times 12 = 144$ (R) · $7 \times 7 = 49$ (W) · $2 \times 12 = 24$ (O) · $1 \times 11 = 11$ (I) · $11 \times 8 = 88$ (H)

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

$63 \div 9 = 7$ · $48 \div 12 = 4$ · $99 \div 9 = 11$ · $36 \div 4 = 9$ · $40 \div 4 = 10$ · $25 \div 5 = 5$ · $12 \div 1 = 12$ · $64 \div 8 = 8$ · $33 \div 11 = 3$ · $8 \div 8 = 1$ · $24 \div 4 = 6$