



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

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.

70 5000 2300 900 230 290 30 300 70 30 7000 2300 130 290 7000 70 430 130 2300

230 290 2300 70 110 230 430 290 2900 5000 2300 90

Round 69 to the nearest ten $\rightarrow$ **T**

Round 263 to the nearest hundred $\rightarrow$

Round 88 to the nearest ten $\rightarrow$ **R**

Round 895 to the nearest hundred $\rightarrow$ **B**

Round 6,978 to the nearest thousand $\rightarrow$

Round 292 to the nearest ten $\rightarrow$ **N**

Round 27 to the nearest ten $\rightarrow$ **D**

Round 232 to the nearest ten $\rightarrow$ **A**

Round 4,663 to the nearest thousand → **H**

Round 2,864 to the nearest hundred $\rightarrow$ **C**

Round 113 to the nearest ten $\rightarrow$ **L**

Round 2,319 to the nearest hundred → **E**

Round 431 to the nearest ten $\rightarrow$ **U**

Round 130 to the nearest ten $\rightarrow$ **S**

Scratch space:

CLUE 2

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.

Diagram illustrating a sequence of numbers (5292, 4513, 9706, 5947, 3441, 5952, 4947, 5274, 5292, 5435, 8235, 9706, 4947, 5292, 4513, 9706, 5274, 9873) with corresponding boxes. The boxes are arranged in two rows. The top row contains 15 boxes, and the bottom row contains 15 boxes. Some boxes are shaded orange and labeled with a 'T', indicating they are 'true' or 'target' values. The numbers below the boxes are: Top row: 5292, 4513, 9706, 5947, 3441, 5952, 4947, 5274, 5292, 5435, 8235, 9706, 4947, 5292, 4513, 9706, 5274, 9873. Bottom row: 7442, 9706, 8188, 5292, 4513, 3441, 5952, 4947, 5292, 5071, 8235, 2248, 5274, 5604, 9706, 5274, 5292.

$$1864 + 3428 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$1916 + 1525 = \boxed{} \rightarrow \boxed{\text{A}}$$

$$3427 + 2520 = \boxed{} \rightarrow \boxed{\mathbf{B}}$$

$$4260 + 3928 = \boxed{} \rightarrow \boxed{\text{F}}$$

$$3063 + 2889 = \boxed{} \rightarrow \boxed{\text{N}}$$

$$2594 + 2353 = \boxed{} \rightarrow \boxed{\text{D}}$$

$$3231 + 1840 = \boxed{} \rightarrow \boxed{0}$$

$$2424 + 2089 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$3961 + 4274 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$2330 + 3274 = \boxed{} \rightarrow \boxed{\text{P}}$$

$$3526 + 3916 = \boxed{} \rightarrow \boxed{\text{L}}$$

$$1196 + 1052 = \boxed{} \rightarrow \boxed{\text{W}}$$

$$3156 + 2279 = \boxed{} \rightarrow \boxed{\text{U}}$$

$$2248 + 3026 = \boxed{} \rightarrow \boxed{\text{I}}$$

$$3010 + 6863 = \boxed{} \rightarrow \boxed{\text{R}}$$

$$3166 + 6540 = \boxed{} \rightarrow \boxed{\text{E}}$$

Scratch space:

CLUE 3

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.

B																B					
1051	8765	6732	7332	8457	5819	6839	6732	7332	8457	5819	8948	6732	6839	6839	1051	6839	6732	3100	7496		
											B										
5819	8457	7883	1965	8457	6594	7496	4812	1051	6594	3100	7496	6732	5819								

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

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

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

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

$9355 - 2023 = \square \rightarrow \text{G}$

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

$12059 - 3111 = \square \rightarrow \text{W}$

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

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

$8219 - 1487 = \square \rightarrow \text{I}$

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

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

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

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

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		

$6 \times 10 = \square \rightarrow \boxed{\text{M}}$

$8 \times 12 = \square \rightarrow \boxed{\text{B}}$

$6 \times 11 = \square \rightarrow \boxed{\text{N}}$

$5 \times 1 = \square \rightarrow \boxed{\text{U}}$

$9 \times 8 = \square \rightarrow \boxed{\text{T}}$

$6 \times 9 = \square \rightarrow \boxed{\text{C}}$

$2 \times 8 = \square \rightarrow \boxed{\text{A}}$

$11 \times 9 = \square \rightarrow \boxed{\text{Y}}$

$1 \times 3 = \square \rightarrow \boxed{\text{S}}$

$10 \times 4 = \square \rightarrow \boxed{\text{D}}$

$2 \times 9 = \square \rightarrow \boxed{\text{G}}$

$12 \times 12 = \square \rightarrow \boxed{\text{R}}$

$7 \times 7 = \square \rightarrow \boxed{\text{W}}$

$2 \times 12 = \square \rightarrow \boxed{\text{O}}$

$1 \times 11 = \square \rightarrow \boxed{\text{I}}$

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

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

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