



The Canopy Mystery

Grade 5 math · Fractions of a number, Multi-step word problems, Word problems, Order of operations, Division · Reading level grades 3-4

Detective: _____ Date: _____

The golden compass of the Treehouse Club has vanished from the jungle basecamp! A sneaky intruder climbed the vines and swapped it with a plain yellow leaf. It is up to you to follow the clues, match the gear, and find the culprit before they escape into the deep forest.

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 monkey-snatcher is _____

Possible suspects

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

NAME	JUNGLE GEAR	CAMP SKILL	HAND GRIP	HEADWEAR	JUNGLE FEAR
Hunter Hope	Night Goggles	Camp Cook	Left Handed Grip	Green Pith Hat	Fear of Water
Explorer Eli	Pocket Compass	Knot Tyer	Right Handed Grip	Blue Cap	Fear of Heights
Green Gary	Grappling Hook	Knot Tyer	Right Handed Grip	Red Bandana	Fear of Heights
Pathfinder Pat	Night Goggles	Trail Marker	Right Handed Grip	Green Pith Hat	Fear of Water
Safari Sam	Grappling Hook	Knot Tyer	Right Handed Grip	Red Bandana	Fear of Spiders
Captain Cole	Pocket Compass	Trail Marker	Right Handed Grip	Blue Cap	Fear of Spiders
Scout Bailey	Brass Telescope	Animal Whisperer	Right Handed Grip	Green Pith Hat	Fear of Water
Una Underhill	Jungle Machete	Camp Cook	Right Handed Grip	Green Pith Hat	Fear of Spiders
Zuma Zoey	Pocket Compass	Animal Whisperer	Right Handed Grip	Red Bandana	Fear of Spiders
Jungle Jane	Pocket Compass	Trail Marker	Left Handed Grip	Green Pith Hat	Fear of Heights
Oakly Oliver	Grappling Hook	Camp Cook	Right Handed Grip	Green Pith Hat	Fear of Water
Navigator Ned	Brass Telescope	Camp Cook	Right Handed Grip	Red Bandana	Fear of Spiders
Dora Finder	Brass Telescope	Shelter Builder	Left Handed Grip	Green Pith Hat	Fear of Heights
Lea Leaf	Jungle Machete	Animal Whisperer	Right Handed Grip	Red Bandana	Fear of Water
Valley Val	Night Goggles	Trail Marker	Left Handed Grip	Blue Cap	Fear of Spiders
River Robin	Grappling Hook	Camp Cook	Right Handed Grip	Green Pith Hat	Fear of Spiders
Ranger Alex	Grappling Hook	Shelter Builder	Right Handed Grip	Green Pith Hat	Fear of Water
Flora Forest	Pocket Compass	Animal Whisperer	Right Handed Grip	Green Pith Hat	Fear of Water
Wilder Wyatt	Night Goggles	Trail Marker	Right Handed Grip	Red Bandana	Fear of Water
Mapmaker Max	Pocket Compass	Camp Cook	Left Handed Grip	Red Bandana	Fear of Heights
Kip Kamp	Grappling Hook	Camp Cook	Right Handed Grip	Red Bandana	Fear of Heights

Fractions of a number

Ranger Rick found a backpack of abandoned gear near the old rope bridge. We need to add up the canteen bottles and lost tools to see who owned this pack.

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

The image shows two rows of 15 empty boxes each. In the first row, the 1st, 10th, and 14th boxes contain the letter 'T'. Below the first row, the numbers 13, 26, 6, 23, 14, 40, 40, 37, 14, 35, 14, 17, 35, 33, and 13 are written. In the second row, the 5th box contains the letter 'T'. Below the second row, the numbers 17, 26, 6, 40, 13, 6, 19, 4, 32, 14, 40, 24, 6, and 19 are written.

$$2/4 \text{ of } 26 = \boxed{} \rightarrow \boxed{\text{T}}$$

$2/4$ of 74 = $\rightarrow$ **A**

8/10 of 50 = → **L**

$$2/8 \text{ of } 104 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$\frac{1}{4} \text{ of } 76 = \boxed{} \rightarrow \boxed{\text{R}}$$

7/8 of 16 = →

$$\frac{1}{6} \text{ of } 138 = \boxed{} \rightarrow \boxed{\mathbf{V}}$$

$$2/5 \text{ of } 60 = \boxed{} \rightarrow \boxed{\mathbf{D}}$$

$$2/10 \text{ of } 160 = \boxed{} \rightarrow \boxed{\text{U}}$$

$6/8$ of $8 = \square \rightarrow \boxed{\text{E}}$

5/10 of 70 = → **N**

$3/6$ of $8 = \boxed{} \rightarrow \boxed{\text{B}}$

$2/8$ of 132 = $\rightarrow$

$\frac{1}{5}$ of 85 = $\rightarrow$ **S**

Scratch space:

CLUE 2

Multi-step word problems

To open the heavy ancient temple door, we must carry crates of supplies up the steps. We need to add the heavy ropes and subtract the broken torches to find the exact weight.

Solve each problem, then write its letter in the boxes to fill in the missing word.

A witness saw the villain was

R									D	E	D		R		P	.
66	80	86	58	29	58	6	47					86	66	80		

Ranger Rick filled 2 boxes with 2 bananas each, then found 62 more bananas. How many bananas are there in all?

Answer: → **R**

Ranger Rick collected 138 compasses in the morning and 97 compasses in the afternoon, then split them equally among 5 The Treehouse Club. How many compasses did each get?

Answer: → **N**

Ranger Rick collected 129 compasses in the morning and 111 compasses in the afternoon, then split them equally among 3 The Treehouse Club. How many compasses did each get?

Answer: → **I**

There were 77 bananas in all. 23 bananas were set aside. The rest were shared equally among 9 The Treehouse Club. How many bananas did each get?

Answer: → **A**

There were 117 jungle vines in all. 30 jungle vines were set aside. The rest were shared equally among 3 The Treehouse Club. How many jungle vines did each get?

Answer: → **T**

Ranger Rick collected 116 gold coins in the morning and 58 gold coins in the afternoon, then split them equally among 3 The Treehouse Club. How many gold coins did each get?

Answer: → **H**

Ranger Rick collected 56 compasses in the morning and 374 compasses in the afternoon, then split them equally among 5 The Treehouse Club. How many compasses did each get?

Answer: → **G**

Scratch space:

CLUE 3

Word problems

The crew stopped to rest under a giant banana tree. A cheeky monkey swung down and took a fraction of our fresh fruit, and we must calculate the exact amount left.

Solve each problem, then write its letter in the boxes to fill in the missing word.

Someone scared the villain off with

F					F					
96	42	110	118	109	96	79	110	106	42	118

.

There were 103 jungle vines. 7 were used up. How many jungle vines are left?

Answer: →

F

Ranger Rick found 74 bananas yesterday and 5 more today. How many bananas in all?

Answer: →

W

There were 130 binoculars. 24 were used up. How many binoculars are left?

Answer: →

T

Ranger Rick found 7 compasses yesterday and 111 more today. How many compasses in all?

Answer: →

R

Ranger Rick lined up 6 rows of 7 gold coins. How many gold coins in all?

Answer: →

E

Ranger Rick lined up 10 rows of 11 binoculars. How many binoculars in all?

Answer: →

A

Ranger Rick found 24 bananas yesterday and 85 more today. How many bananas in all?

Answer: →

O

Scratch space:

CLUE 4

Order of operations

We found a small brass locked box hidden in a hollow log. To open the lock, we must solve a secret jungle puzzle by doing our multiplication before our addition.

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

W																
49	24	23	7	39	62	47	53	50	69	24	24	62	16	25	65	19
19	53	65	7	62	65	19	24	65	69	53	25	56				

$9 \times 8 - 23 = \square \rightarrow \boxed{\text{W}}$

$6 \times 9 - 30 = \square \rightarrow \boxed{\text{E}}$

$9 + 2 \times 5 = \square \rightarrow \boxed{\text{H}}$

$47 + 3 \times 6 = \square \rightarrow \boxed{\text{T}}$

$8 \times 9 - 22 = \square \rightarrow \boxed{\text{G}}$

$7 \times 5 - 12 = \square \rightarrow \boxed{\text{F}}$

$12 \times 3 - 11 = \square \rightarrow \boxed{\text{I}}$

$3 \times 12 - 29 = \square \rightarrow \boxed{\text{O}}$

$3 \times 6 - 2 = \square \rightarrow \boxed{\text{P}}$

$9 \times 8 - 3 = \square \rightarrow \boxed{\text{R}}$

$50 + 2 \times 6 = \square \rightarrow \boxed{\text{N}}$

$11 \times 6 - 13 = \square \rightarrow \boxed{\text{A}}$

$7 + 8 \times 4 = \square \rightarrow \boxed{\text{U}}$

$6 \times 12 - 25 = \square \rightarrow \boxed{\text{D}}$

$8 \times 9 - 16 = \square \rightarrow \boxed{\text{L}}$

Scratch space:

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

A pile of shiny gold coins was left scattered in the ferns. If we share them equally among our team of explorers, the leftover coins will point to where the runaway went.

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:

$72 \div 9 = \boxed{}$

$49 \div 7 = \boxed{}$

$18 \div 9 = \boxed{}$

$7 \div 7 = \boxed{}$

$48 \div 8 = \boxed{}$

$121 \div 11 = \boxed{}$

$32 \div 8 = \boxed{}$

$10 \div 1 = \boxed{}$

$120 \div 10 = \boxed{}$

$50 \div 10 = \boxed{}$

$27 \div 3 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain sneaks through the dark jungle, then builds a leafy rain shelter.
2. The villain swings across the canyon, then cooks a spicy jungle stew.
3. The villain follows the magnetic north, then befriends a wild parrot.
4. The villain scans the tree canopy, then ties a perfect square knot.
5. The villain swings across the canyon, then ties a perfect square knot.
6. The villain scans the tree canopy, then cooks a spicy jungle stew.
7. The villain sneaks through the dark jungle, then marks the path with bright paint.
8. The villain scans the tree canopy, then befriends a wild parrot.
9. The villain sneaks through the dark jungle, then befriends a wild parrot.
10. The villain follows the magnetic north, then marks the path with bright paint.
11. The villain sneaks through the dark jungle, then ties a perfect square knot.
12. The villain scans the tree canopy, then builds a leafy rain shelter.

Answer Key

The Canopy Mystery

Culprit: Flora Forest

Pocket Compass · Animal Whisperer · Right Handed Grip · Green Pith Hat · Fear of Water

Trail: Start 21 → Clue 1 19 → Clue 2 15 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Fractions of a number): "THE VILLAIN IS NOT A SHELTER BUILDER"

$\frac{2}{4}$ of 26 = 13 (T) · $\frac{2}{4}$ of 74 = 37 (A) · $\frac{8}{10}$ of 50 = 40 (L) · $\frac{2}{8}$ of 104 = 26 (H) · $\frac{1}{4}$ of 76 = 19 (R) · $\frac{7}{8}$ of 16 = 14 (I) · $\frac{1}{6}$ of 138 = 23 (V) · $\frac{2}{5}$ of 60 = 24 (D) · $\frac{2}{10}$ of 160 = 32 (U) · $\frac{6}{8}$ of 8 = 6 (E) · $\frac{5}{10}$ of 70 = 35 (N) · $\frac{3}{6}$ of 8 = 4 (B) · $\frac{2}{8}$ of 132 = 33 (O) · $\frac{1}{5}$ of 85 = 17 (S)

Clue 2 (Multi-step word problems): "RIGHT HANDED GRIP"

Ranger Rick filled 2 boxes with 2 bananas each, then found 62 more bananas. How many bananas are there in all? = 66 (R) · Ranger Rick collected 138 compasses in the morning and 97 compasses in the afternoon, then split them equally among 5 The Treehouse Club. How many compasses did each get? = 47 (N) · Ranger Rick collected 129 compasses in the morning and 111 compasses in the afternoon, then split them equally among 3 The Treehouse Club. How many compasses did each get? = 80 (I) · There were 77 bananas in all. 23 bananas were set aside. The rest were shared equally among 9 The Treehouse Club. How many bananas did each get? = 6 (A) · There were 117 jungle vines in all. 30 jungle vines were set aside. The rest were shared equally among 3 The Treehouse Club. How many jungle vines did each get? = 29 (T) · Ranger Rick collected 116 gold coins in the morning and 58 gold coins in the afternoon, then split them equally among 3 The Treehouse Club. How many gold coins did each get? = 58 (H) · Ranger Rick collected 56 compasses in the morning and 374 compasses in the afternoon, then split them equally among 5 The Treehouse Club. How many compasses did each get? = 86 (G)

Clue 3 (Word problems): "FEAR OF WATER"

There were 103 jungle vines. 7 were used up. How many jungle vines are left? = 96 (F) · Ranger Rick found 74 bananas yesterday and 5 more today. How many bananas in all? = 79 (W) · There were 130 binoculars. 24 were used up. How many binoculars are left? = 106 (T) · Ranger Rick found 7 compasses yesterday and 111 more today. How many compasses in all? = 118 (R) · Ranger Rick lined up 6 rows of 7 gold coins. How many gold coins in all? = 42 (E) · Ranger Rick lined up 10 rows of 11 binoculars. How many binoculars in all? = 110 (A) · Ranger Rick found 24 bananas yesterday and 85 more today. How many bananas in all? = 109 (O)

Clue 4 (Order of operations): "WE FOUND A GREEN PITH HAT ON THE TRAIL"

$9 \times 8 - 23 = 49$ (W) · $6 \times 9 - 30 = 24$ (E) · $9 + 2 \times 5 = 19$ (H) · $47 + 3 \times 6 = 65$ (T) · $8 \times 9 - 22 = 50$ (G) · $7 \times 5 - 12 = 23$ (F) · $12 \times 3 - 11 = 25$ (I) · $3 \times 12 - 29 = 7$ (O) · $3 \times 6 - 2 = 16$ (P) · $9 \times 8 - 3 = 69$ (R) · $50 + 2 \times 6 = 62$ (N) · $11 \times 6 - 13 = 53$ (A) · $7 + 8 \times 4 = 39$ (U) · $6 \times 12 - 25 = 47$ (D) · $8 \times 9 - 16 = 56$ (L)

Clue 5 (Division facts (1-12)): surviving statement is box 3 → Flora Forest

$72 \div 9 = 8$ · $49 \div 7 = 7$ · $18 \div 9 = 2$ · $7 \div 7 = 1$ · $48 \div 8 = 6$ · $121 \div 11 = 11$ · $32 \div 8 = 4$ · $10 \div 1 = 10$ · $120 \div 10 = 12$ · $50 \div 10 = 5$ · $27 \div 3 = 9$