



# The Whispering Canopy Mystery

Grade 6 math · Multiplication, Percentages, Exponents, Order of operations, Division · Reading level grades 3-4

Detective: \_\_\_\_\_ Date: \_\_\_\_\_

A rogue explorer has swiped the Golden Jaguar Statue from the jungle vault! The Whispering Canopy is full of traps. Use your math skills and clues to track down 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 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      | EXPLORER TOOL    | ANIMAL COMPANION | HANDEDNESS      | HAIR STYLE       | JUNGLE FEAR       |
|-----------|------------------|------------------|-----------------|------------------|-------------------|
| Hudson    | mapping drone    | scout parrot     | uses left hand  | messy spikes     | sneezes at dust   |
| Clara     | climbing picks   | pocket monkey    | uses left hand  | messy spikes     | hates quicksand   |
| Toby      | laser flashlight | helper ferret    | uses right hand | curly hair       | hates quicksand   |
| Marco     | grappling hook   | helper ferret    | uses right hand | curly hair       | hates quicksand   |
| Lara      | laser flashlight | trained falcon   | uses left hand  | curly hair       | hates quicksand   |
| Wyatt     | climbing picks   | scout parrot     | uses right hand | curly hair       | hates quicksand   |
| Diego     | grappling hook   | scout parrot     | uses left hand  | braided ponytail | sneezes at dust   |
| Finn      | sonic whistle    | mini chameleon   | uses right hand | curly hair       | hates quicksand   |
| Sora      | sonic whistle    | scout parrot     | uses right hand | curly hair       | hates quicksand   |
| Indy      | mapping drone    | mini chameleon   | uses left hand  | braided ponytail | hates quicksand   |
| Pip       | grappling hook   | pocket monkey    | uses left hand  | curly hair       | hates quicksand   |
| Hazel     | mapping drone    | mini chameleon   | uses left hand  | messy spikes     | sneezes at dust   |
| Rex       | mapping drone    | mini chameleon   | uses right hand | curly hair       | hates quicksand   |
| Zane      | sonic whistle    | trained falcon   | uses right hand | braided ponytail | hates quicksand   |
| Jack      | sonic whistle    | helper ferret    | uses right hand | messy spikes     | hates quicksand   |
| Nellie    | grappling hook   | trained falcon   | uses right hand | messy spikes     | sneezes at dust   |
| Milo      | sonic whistle    | pocket monkey    | uses left hand  | curly hair       | afraid of spiders |
| Zora      | mapping drone    | pocket monkey    | uses right hand | curly hair       | afraid of spiders |
| Dora      | mapping drone    | helper ferret    | uses right hand | curly hair       | sneezes at dust   |
| Sacagawea | sonic whistle    | trained falcon   | uses left hand  | curly hair       | afraid of spiders |
| Leo       | sonic whistle    | trained falcon   | uses left hand  | messy spikes     | sneezes at dust   |

**CLUE 1**
**Multiplication facts (1-12)**

We find a crate of expedition supplies left behind. They are neatly arranged in rows. Let's multiply the rows and columns to count the pack of supplies and unlock the first clue!

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

|    |     |    |    |     |    |    |     |    |    |    |    |    |    |    |    |    |   |
|----|-----|----|----|-----|----|----|-----|----|----|----|----|----|----|----|----|----|---|
| T  |     |    |    |     |    |    |     |    |    |    |    |    |    |    |    |    | T |
| 55 | 72  | 77 | 9  | 81  | 10 | 10 | 144 | 81 | 33 | 14 | 32 | 77 | 90 | 33 | 32 | 55 |   |
|    |     |    |    |     |    |    |     |    |    |    |    |    |    |    |    |    | T |
| 72 | 144 | 9  | 77 | 144 | 72 | 77 | 10  | 11 | 77 | 88 | 36 | 77 | 88 | 88 | 77 | 55 |   |

$11 \times 5 = \square \rightarrow \boxed{\text{T}}$

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

$4 \times 8 = \square \rightarrow \boxed{\text{O}}$

$2 \times 7 = \square \rightarrow \boxed{\text{D}}$

$4 \times 9 = \square \rightarrow \boxed{\text{F}}$

$9 \times 1 = \square \rightarrow \boxed{\text{V}}$

$7 \times 11 = \square \rightarrow \boxed{\text{E}}$

$5 \times 2 = \square \rightarrow \boxed{\text{L}}$

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

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

$10 \times 9 = \square \rightarrow \boxed{\text{S}}$

$9 \times 9 = \square \rightarrow \boxed{\text{I}}$

$6 \times 12 = \square \rightarrow \boxed{\text{H}}$

$11 \times 3 = \square \rightarrow \boxed{\text{N}}$

Scratch space:

## CLUE 2 Percentages

Our tracking device is losing power fast. The screen shows the battery percentage remaining. Solve this percentage puzzle to boost the signal and read the next clue!

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

|    |    |    |    |    |    |    |   |    |    |    |    |    |    |    |    |    |   |
|----|----|----|----|----|----|----|---|----|----|----|----|----|----|----|----|----|---|
| T  |    |    |    |    |    |    |   |    |    |    |    |    |    |    |    |    |   |
| 5  | 13 | 14 | 37 | 18 | 41 | 13 | 5 | 13 | 21 | 40 | 2  | 14 | 2  | 41 | 37 | 18 | 8 |
|    |    |    |    |    |    |    |   |    |    |    |    |    |    |    |    |    |   |
| 19 | 21 | 45 | 6  | 31 | 9  | 40 | 2 | 31 | 40 | 5  | 13 | 14 | 37 | 31 | 8  | 14 |   |

$50\% \text{ of } 10 = \square \rightarrow \text{T}$

$10\% \text{ of } 310 = \square \rightarrow \text{O}$

$10\% \text{ of } 90 = \square \rightarrow \text{U}$

$75\% \text{ of } 28 = \square \rightarrow \text{A}$

$10\% \text{ of } 20 = \square \rightarrow \text{D}$

$25\% \text{ of } 76 = \square \rightarrow \text{W}$

$10\% \text{ of } 400 = \square \rightarrow \text{N}$

$10\% \text{ of } 130 = \square \rightarrow \text{H}$

$5\% \text{ of } 280 = \square \rightarrow \text{E}$

$60\% \text{ of } 75 = \square \rightarrow \text{S}$

$60\% \text{ of } 30 = \square \rightarrow \text{I}$

$5\% \text{ of } 160 = \square \rightarrow \text{P}$

$50\% \text{ of } 12 = \square \rightarrow \text{F}$

$25\% \text{ of } 164 = \square \rightarrow \text{G}$

$25\% \text{ of } 148 = \square \rightarrow \text{R}$

Scratch space:

## CLUE 3 Exponents

We reach a giant stone door locked by a code. The number of paths doubles at every step we take. Solve this exponent riddle to find the right path and open the door!

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

|     |     |    |     |     |    |    |     |     |     |     |    |     |     |     |     |    |
|-----|-----|----|-----|-----|----|----|-----|-----|-----|-----|----|-----|-----|-----|-----|----|
| T   |     |    | T   |     |    |    |     |     |     |     |    |     |     |     |     |    |
| 225 | 324 | 32 | 225 | 324 | 25 | 32 | 343 | 196 | 256 | 243 | 32 | 343 | 216 | 169 | 169 | 81 |

  

|     |     |     |    |    |    |    |     |     |    |     |     |    |     |   |   |     |   |    |
|-----|-----|-----|----|----|----|----|-----|-----|----|-----|-----|----|-----|---|---|-----|---|----|
|     |     |     |    |    |    |    | T   |     |    |     |     |    |     |   |   |     |   |    |
| 256 | 121 | 128 | 25 | 27 | 32 | 27 | 225 | 324 | 32 | 125 | 216 | 25 | 196 | 9 | 4 | 256 | 8 | 27 |

|                                |                                |                                |                                |
|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| $15^2 = \square \rightarrow$ T | $3^3 = \square \rightarrow$ D  | $3^4 = \square \rightarrow$ Y  | $14^2 = \square \rightarrow$ C |
| $2^2 = \square \rightarrow$ S  | $11^2 = \square \rightarrow$ V | $7^3 = \square \rightarrow$ F  | $13^2 = \square \rightarrow$ L |
| $2^3 = \square \rightarrow$ N  | $2^8 = \square \rightarrow$ A  | $6^3 = \square \rightarrow$ U  | $3^2 = \square \rightarrow$ K  |
| $2^7 = \square \rightarrow$ O  | $2^5 = \square \rightarrow$ E  | $18^2 = \square \rightarrow$ H | $3^5 = \square \rightarrow$ R  |
| $5^2 = \square \rightarrow$ I  | $5^3 = \square \rightarrow$ Q  |                                |                                |

Scratch space:

### CLUE 4

There is a bridge of ancient stepping stones ahead. We must step on the stones in the exact correct mathematical order to cross safely and grab the clue!

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

A 2x10 grid of boxes. The first box in the first row contains the letter 'C' in an orange square. The numbers in the boxes are as follows:

|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| C  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 80 | 25 | 66 | 67 | 18 | 70 | 50 | 66 | 7  | 64 | 39 | 70 | 68 | 63 | 66 | 63 |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 73 | 64 | 50 | 78 | 63 | 70 | 50 | 73 | 64 | 63 | 68 | 7  | 67 | 67 |    |    |

$10 \times 10 - 20 = \square \rightarrow \boxed{\text{C}}$

$$8 \times 11 - 25 = \boxed{\phantom{00}} \rightarrow \boxed{\text{E}}$$

$$9 \times 10 - 20 = \boxed{\phantom{00}} \rightarrow \boxed{\text{S}}$$

$$10 \times 9 - 23 = \boxed{\phantom{00}} \rightarrow \boxed{\text{L}}$$

$$2 + 2 \times 8 = \boxed{\phantom{00}} \rightarrow \boxed{\text{Y}}$$

$$8 \times 10 - 14 = \boxed{\phantom{00}} \rightarrow \boxed{\text{R}}$$

$$8 \times 8 - 25 = \boxed{\phantom{00}} \rightarrow \boxed{\text{D}}$$

$$1 + 8 \times 3 = \boxed{\phantom{00}} \rightarrow \boxed{\text{U}}$$

$$8 \times 11 - 10 = \boxed{\phantom{00}} \rightarrow \boxed{\text{H}}$$

$1 + 2 \times 3 = \square \rightarrow \boxed{\mathbf{A}}$

$$8 \times 10^{-12} = \boxed{\phantom{000}} \rightarrow \boxed{\text{W}}$$

$$51 + 7 \times 3 = \boxed{\phantom{00}} \rightarrow \boxed{\text{F}}$$

$$9 \times 10 - 17 = \boxed{\phantom{00}} \rightarrow \boxed{\text{O}}$$

$35 + 5 \times 3 = \square \rightarrow \boxed{\text{T}}$

$$12 \times 7 - 20 = \boxed{\phantom{00}} \rightarrow \boxed{\text{N}}$$

Scratch space:

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

We have a bunch of survival rations to split among our team. If we divide the food packages equally, we can unlock the final clue hidden inside the ration box!

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:**

$60 \div 5 = \boxed{\phantom{00}}$

$35 \div 5 = \boxed{\phantom{00}}$

$6 \div 6 = \boxed{\phantom{00}}$

$12 \div 3 = \boxed{\phantom{00}}$

$9 \div 1 = \boxed{\phantom{00}}$

$70 \div 7 = \boxed{\phantom{00}}$

$15 \div 5 = \boxed{\phantom{00}}$

$18 \div 3 = \boxed{\phantom{00}}$

$30 \div 6 = \boxed{\phantom{00}}$

$33 \div 3 = \boxed{\phantom{00}}$

$24 \div 3 = \boxed{\phantom{00}}$

**Step 2 - cross out the sentence with each answer:**

1. The villain scouts the high canopy with a mapping drone, then uses a mini chameleon to distract the guards.
2. The villain blasts a sonic whistle to clear a path, then uses a mini chameleon to distract the guards.
3. The villain scouts the high canopy with a mapping drone, then sends a trained falcon to snatch the loot.
4. The villain blasts a sonic whistle to clear a path, then sends a trained falcon to snatch the loot.
5. The villain scales the muddy cliffside with climbing picks, then sends a trained falcon to snatch the loot.
6. The villain lights up the dark cave with a laser flashlight, then lets a pocket monkey grab the treasure keys.
7. The villain scales the muddy cliffside with climbing picks, then has a scout parrot screech out warnings.
8. The villain lights up the dark cave with a laser flashlight, then has a scout parrot screech out warnings.
9. The villain scouts the high canopy with a mapping drone, then sends a helper ferret down the narrow tunnel.
10. The villain blasts a sonic whistle to clear a path, then lets a pocket monkey grab the treasure keys.
11. The villain scales the muddy cliffside with climbing picks, then sends a helper ferret down the narrow tunnel.
12. The villain blasts a sonic whistle to clear a path, then has a scout parrot screech out warnings.

# Answer Key

## The Whispering Canopy Mystery

### Culprit: Finn

sonic whistle · mini chameleon · uses right hand · curly hair · hates quicksand

Trail: Start 21 → Clue 1 17 → Clue 2 7 → Clue 3 5 → Clue 4 4 → Clue 5 1

### Clue 1 (Multiplication facts (1-12)): "THE VILLAIN DOES NOT HAVE A HELPER FERRET"

$11 \times 5 = 55$  (T) ·  $11 \times 1 = 11$  (P) ·  $4 \times 8 = 32$  (O) ·  $2 \times 7 = 14$  (D) ·  $4 \times 9 = 36$  (F) ·  $9 \times 1 = 9$  (V) ·  $7 \times 11 = 77$  (E) ·  $5 \times 2 = 10$  (L) ·  $11 \times 8 = 88$  (R) ·  $12 \times 12 = 144$  (A) ·  $10 \times 9 = 90$  (S) ·  $9 \times 9 = 81$  (I) ·  $6 \times 12 = 72$  (H) ·  $11 \times 3 = 33$  (N)

### Clue 2 (Percentages): "THE RIGHT HANDED GRIP WAS FOUND ON THE ROPE"

50% of 10 = 5 (T) · 10% of 310 = 31 (O) · 10% of 90 = 9 (U) · 75% of 28 = 21 (A) · 10% of 20 = 2 (D) · 25% of 76 = 19 (W) · 10% of 400 = 40 (N) · 10% of 130 = 13 (H) · 5% of 280 = 14 (E) · 60% of 75 = 45 (S) · 60% of 30 = 18 (I) · 5% of 160 = 8 (P) · 50% of 12 = 6 (F) · 25% of 164 = 41 (G) · 25% of 148 = 37 (R)

### Clue 3 (Exponents): "THE THIEF CAREFULLY AVOIDED THE QUICKSAND"

$15^2 = 225$  (T) ·  $3^3 = 27$  (D) ·  $3^4 = 81$  (Y) ·  $14^2 = 196$  (C) ·  $2^2 = 4$  (S) ·  $11^2 = 121$  (V) ·  $7^3 = 343$  (F) ·  $13^2 = 169$  (L) ·  $2^3 = 8$  (N) ·  $2^8 = 256$  (A) ·  $6^3 = 216$  (U) ·  $3^2 = 9$  (K) ·  $2^7 = 128$  (O) ·  $2^5 = 32$  (E) ·  $18^2 = 324$  (H) ·  $3^5 = 243$  (R) ·  $5^2 = 25$  (I) ·  $5^3 = 125$  (Q)

### Clue 4 (Order of operations): "CURLY STRANDS WERE LEFT ON THE STONE WALL"

$10 \times 10 - 20 = 80$  (C) ·  $8 \times 11 - 25 = 63$  (E) ·  $9 \times 10 - 20 = 70$  (S) ·  $10 \times 9 - 23 = 67$  (L) ·  $2 + 2 \times 8 = 18$  (Y) ·  $8 \times 10 - 14 = 66$  (R) ·  $8 \times 8 - 25 = 39$  (D) ·  $1 + 8 \times 3 = 25$  (U) ·  $8 \times 11 - 10 = 78$  (H) ·  $1 + 2 \times 3 = 7$  (A) ·  $8 \times 10 - 12 = 68$  (W) ·  $51 + 7 \times 3 = 72$  (F) ·  $9 \times 10 - 17 = 73$  (O) ·  $35 + 5 \times 3 = 50$  (T) ·  $12 \times 7 - 20 = 64$  (N)

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

$60 \div 5 = 12$  ·  $35 \div 5 = 7$  ·  $6 \div 6 = 1$  ·  $12 \div 3 = 4$  ·  $9 \div 1 = 9$  ·  $70 \div 7 = 10$  ·  $15 \div 5 = 3$  ·  $18 \div 3 = 6$  ·  $30 \div 6 = 5$  ·  $33 \div 3 = 11$  ·  $24 \div 3 = 8$