The Sunken Canopy Sabotage

Grade 6 math · Rounding, Word problems, Bar models, Multi-step word problems, Missing addends · Reading level grades 5-6

Detective: _____ **Date:** _____

During a high-stakes expedition into the uncharted Sunken Canopy, someone sabotaged the main camp and stole critical mapping coordinates! Expedition Leader Maya needs your detective skills to analyze field notes, track down evidence, and identify the rogue explorer responsible.

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

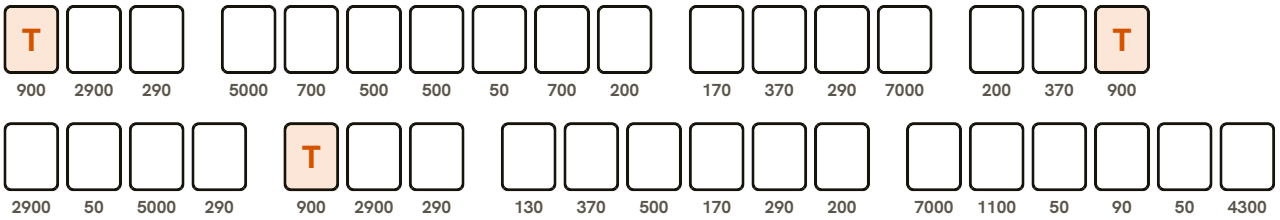
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	SPECIALIST GEAR	JUNGLE ARTIFACT	DOMINANT HAND	HEADGEAR TYPE	DISTRACTION ITEM
Captain Vance	grappling hook	jade idol	left handed	green visor	shiny mirror
Ranger Kelly	smoke bombs	ruby amulet	left handed	green visor	shiny mirror
Guide Sterling	glider wings	bronze compass	left handed	red bandana	shiny mirror
Tracker Hayes	glider wings	ruby amulet	left handed	blue helmet	shiny mirror
Navigator Blake	grappling hook	ruby amulet	left handed	blue helmet	whistle sound
Chief Stone	grappling hook	ruby amulet	left handed	red bandana	trail mix
Cartographer Poe	glider wings	bronze compass	right handed	green visor	shiny mirror
Commander Vance	stealth cloak	golden scarab	right handed	red bandana	shiny mirror
Surveyor Diaz	grappling hook	silver dagger	left handed	green visor	shiny mirror
Scout Miller	smoke bombs	silver dagger	right handed	blue helmet	whistle sound
Explorer Dax	sonar compass	bronze compass	left handed	green visor	whistle sound
Marshal Reed	smoke bombs	bronze compass	right handed	blue helmet	whistle sound
Dr Elena	stealth cloak	bronze compass	right handed	red bandana	trail mix
Cadet Toby	grappling hook	golden scarab	left handed	red bandana	whistle sound
Archivist Flynn	sonar compass	golden scarab	left handed	green visor	whistle sound
Professor Oak	smoke bombs	silver dagger	right handed	blue helmet	shiny mirror
Tracker Bruno	sonar compass	golden scarab	left handed	green visor	shiny mirror
Specialist Nova	smoke bombs	ruby amulet	left handed	green visor	trail mix
Officer Grant	sonar compass	ruby amulet	left handed	green visor	shiny mirror
Agent Rivers	glider wings	silver dagger	right handed	blue helmet	whistle sound
Sleuth Morgan	sonar compass	ruby amulet	right handed	green visor	shiny mirror

CLUE 1 Rounding

> The altar display panel rounds all energy readings to the nearest hundred. Decode the display to unlock the first clue.

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



Round 923 to the nearest hundred ☐ → **T**

Round 4,318 to the nearest hundred ☐ → **B**

Round 6,905 to the nearest thousand ☐ → **S**

Round 134 to the nearest ten ☐ → **G**

Round 1,059 to the nearest hundred ☐ → **C**

Round 2,854 to the nearest hundred ☐ → **H**

Round 170 to the nearest ten ☐ → **D**

Round 86 to the nearest ten ☐ → **R**

Round 287 to the nearest ten ☐ → **E**

Round 487 to the nearest hundred ☐ → **L**

Round 706 to the nearest hundred ☐ → **I**

Round 5,475 to the nearest thousand ☐ → **V**

Round 179 to the nearest hundred ☐ → **N**

Round 46 to the nearest ten ☐ → **A**

Round 369 to the nearest ten ☐ → **O**

Scratch space:

CLUE 2 Word problems

A locked expedition crate requires solving supply distribution math to retrieve the secret note.

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

A witness saw the villain was

L							D		D
14	7	96	91	49	65	11		7	

.

There were 18 canteen supplies. 4 were used up. How many canteen supplies are left?

Answer: ☐ → **L**

Senior Explorer lined up 7 rows of 7 canteen supplies. How many canteen supplies in all?

Answer: ☐ → **H**

There were 48 field notebooks. 37 were used up. How many field notebooks are left?

Answer: ☐ → **N**

Senior Explorer found 5 climbing ropes yesterday and 60 more today. How many climbing ropes in all?

Answer: ☐ → **A**

Senior Explorer found 77 field notebooks yesterday and 19 more today. How many field notebooks in all?

Answer: ☐ → **F**

Senior Explorer found 28 field notebooks yesterday and 63 more today. How many field notebooks in all?

Answer: ☐ → **T**

Senior Explorer found 2 ration packs yesterday and 5 more today. How many ration packs in all?

Answer: ☐ → **E**

Scratch space:

CLUE 3 Bar model word problems

> The jungle camp blueprint uses stacked bar models to compare team equipment totals. Read the chart to find the next clue.

Draw a bar model to solve each word problem, then write its letter in the boxes to fill in the missing word.

Someone scared the villain off with

S										O	
88	29	10	119	131	50	10	35	35		35	

.

Senior Explorer has 176 ration packs, packed 2 to a bag. How many bags can be filled?

draw a bar model

Answer: ☐ → S

Senior Explorer has 100 field notebooks, packed 2 to a bag. How many bags can be filled?

draw a bar model

Answer: ☐ → M

Senior Explorer has 7 times as many expedition compasses as a teammate. The teammate has 5 expedition compasses. How many expedition compasses does Senior Explorer have?

draw a bar model

Answer: ☐ → R

The red team has 168 field notebooks and the blue team has 37 field notebooks. How many more field notebooks does the red team have?

draw a bar model

Answer: ☐ → Y

Senior Explorer has 238 expedition compasses, packed 2 to a bag. How many bags can be filled?

draw a bar model

Answer: ☐ → N

Senior Explorer has 5 times as many expedition compasses as a teammate. The teammate has 2 expedition compasses. How many expedition compasses does Senior Explorer have?

draw a bar model

Answer: ☐ → I

There were 55 field notebooks in all. 26 field notebooks were used. How many field notebooks are left?

draw a bar model

Answer: ☐ → H

CLUE 4 Multi-step word problems

Navigating the ancient stone maze requires multi-step distance calculations to uncover the hidden message.

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

A strand of

G								O		hair turned up at the scene.
16	79	89	89	73	43	51	41		79	

Senior Explorer collected 19 ration packs in the morning and 45 ration packs in the afternoon, then split them equally among 4 Vanguard Trailblazers. How many ration packs did each get?

Answer: ☐ → **G**

Senior Explorer collected 60 climbing ropes in the morning and 112 climbing ropes in the afternoon, then split them equally among 4 Vanguard Trailblazers. How many climbing ropes did each get?

Answer: ☐ → **V**

There were 448 climbing ropes in all. 38 climbing ropes were set aside. The rest were shared equally among 10 Vanguard Trailblazers. How many climbing ropes did each get?

Answer: ☐ → **S**

Senior Explorer collected 178 ration packs in the morning and 41 ration packs in the afternoon, then split them equally among 3 Vanguard Trailblazers. How many ration packs did each get?

Answer: ☐ → **N**

There were 475 canteen supplies in all. 1 Vanguard Trailblazers used 30 canteen supplies each. The other 5 Vanguard Trailblazers shared the rest equally. How many canteen supplies did each of the other Vanguard Trailblazers get?

Answer: ☐ → **E**

Senior Explorer filled 8 boxes with 2 climbing ropes each, then found 63 more climbing ropes. How many climbing ropes are there in all?

Answer: ☐ → **R**

There were 252 field notebooks in all. 2 Vanguard Trailblazers used 24 field notebooks each. The other 4 Vanguard Trailblazers shared the rest equally. How many field notebooks did each of the other Vanguard Trailblazers get?

Answer: ☐ → **I**

Scratch space:

CLUE 5 Missing addends - the last clue

The temple vault door will only unlatch when the missing power values are calculated correctly.

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:

21 + ___ = 27 ☐	35 + ___ = 37 ☐	3 + ___ = 14 ☐	33 + ___ = 42 ☐
28 + ___ = 29 ☐	13 + ___ = 17 ☐	14 + ___ = 19 ☐	12 + ___ = 20 ☐
31 + ___ = 43 ☐	28 + ___ = 38 ☐	27 + ___ = 30 ☐	

Step 2 - cross out the sentence with each answer:

1. The villain creates a cloud of smoke with smoke bombs, then claims the sacred golden scarab.
2. The villain zips across chasms with a grappling hook, then wields an ornate silver dagger.
3. The villain soars over the jungle on glider wings, then wields an ornate silver dagger.
4. The villain soars over the jungle on glider wings, then pockets a heavy jade idol.
5. The villain navigates dark caves using a sonar compass, then clutches an antique bronze compass.
6. The villain zips across chasms with a grappling hook, then pockets a heavy jade idol.
7. The villain navigates dark caves using a sonar compass, then carries a glowing ruby amulet.
8. The villain vanishes into shadows with a stealth cloak, then wields an ornate silver dagger.
9. The villain zips across chasms with a grappling hook, then clutches an antique bronze compass.
10. The villain zips across chasms with a grappling hook, then claims the sacred golden scarab.
11. The villain creates a cloud of smoke with smoke bombs, then carries a glowing ruby amulet.
12. The villain vanishes into shadows with a stealth cloak, then carries a glowing ruby amulet.

TEACHER / PARENT

Answer Key

The Sunken Canopy Sabotage

Culprit: Officer Grant

sonar compass · ruby amulet · left handed · green visor · shiny mirror

Trail: Start 21 → Clue 1 17 → Clue 2 10 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE VILLAIN DOES NOT HAVE THE GOLDEN SCARAB"

Round 923 to the nearest hundred = 900 (T) · Round 4,318 to the nearest hundred = 4300 (B) · Round 6,905 to the nearest thousand = 7000 (S) · Round 134 to the nearest ten = 130 (G) · Round 1,059 to the nearest hundred = 1100 (C) · Round 2,854 to the nearest hundred = 2900 (H) · Round 170 to the nearest ten = 170 (D) · Round 86 to the nearest ten = 90 (R) · Round 287 to the nearest ten = 290 (E) · Round 487 to the nearest hundred = 500 (L) · Round 706 to the nearest hundred = 700 (I) · Round 5,475 to the nearest thousand = 5000 (V) · Round 179 to the nearest hundred = 200 (N) · Round 46 to the nearest ten = 50 (A) · Round 369 to the nearest ten = 370 (O)

Clue 2 (Word problems): "LEFT HANDED"

There were 18 canteen supplies. 4 were used up. How many canteen supplies are left? = 14 (L) · Senior Explorer lined up 7 rows of 7 canteen supplies. How many canteen supplies in all? = 49 (H) · There were 48 field notebooks. 37 were used up. How many field notebooks are left? = 11 (N) · Senior Explorer found 5 climbing ropes yesterday and 60 more today. How many climbing ropes in all? = 65 (A) · Senior Explorer found 77 field notebooks yesterday and 19 more today. How many field notebooks in all? = 96 (F) · Senior Explorer found 28 field notebooks yesterday and 63 more today. How many field notebooks in all? = 91 (T) · Senior Explorer found 2 ration packs yesterday and 5 more today. How many ration packs in all? = 7 (E)

Clue 3 (Bar model word problems): "SHINY MIRROR"

Senior Explorer has 176 ration packs, packed 2 to a bag. How many bags can be filled? = 88 (S) · Senior Explorer has 100 field notebooks, packed 2 to a bag. How many bags can be filled? = 50 (M) · Senior Explorer has 7 times as many expedition compasses as a teammate. The teammate has 5 expedition compasses. How many expedition compasses does Senior Explorer have? = 35 (R) · The red team has 168 field notebooks and the blue team has 37 field notebooks. How many more field notebooks does the red team have? = 131 (Y) · Senior Explorer has 238 expedition compasses, packed 2 to a bag. How many bags can be filled? = 119 (N) · Senior Explorer has 5 times as many expedition compasses as a teammate. The teammate has 2 expedition compasses. How many expedition compasses does Senior Explorer have? = 10 (I) · There were 55 field notebooks in all. 26 field notebooks were used. How many field notebooks are left? = 29 (H)

Clue 4 (Multi-step word problems): "GREEN VISOR"

Senior Explorer collected 19 ration packs in the morning and 45 ration packs in the afternoon, then split them equally among 4 Vanguard Trailblazers. How many ration packs did each get? = 16 (G) · Senior Explorer collected 60 climbing ropes in the morning and 112 climbing ropes in the afternoon, then split them equally among 4 Vanguard Trailblazers. How many climbing ropes did each get? = 43 (V) · There were 448 climbing ropes in all. 38 climbing ropes were set aside. The rest were shared equally among 10 Vanguard Trailblazers. How many climbing ropes did each get? = 41 (S) · Senior Explorer collected 178 ration packs in the morning and 41 ration packs in the afternoon, then split them equally among 3 Vanguard Trailblazers. How many ration packs did each get? = 73 (N) · There were 475 canteen supplies in all. 1 Vanguard Trailblazers used 30 canteen supplies each. The other 5 Vanguard Trailblazers shared the rest equally. How many canteen supplies did each of the other Vanguard Trailblazers get? = 89 (E) · Senior Explorer filled 8 boxes with 2 climbing ropes each, then found 63 more climbing ropes. How many climbing ropes are there in all? = 79 (R) · There were 252 field notebooks in all. 2 Vanguard Trailblazers used 24 field notebooks each. The other 4 Vanguard Trailblazers shared the rest equally. How many field notebooks did each of the other Vanguard Trailblazers get? = 51 (I)

Clue 5 (Missing addends): surviving statement is box 7 → Officer Grant

21 + ___ = 27 = 6 · 35 + ___ = 37 = 2 · 3 + ___ = 14 = 11 · 33 + ___ = 42 = 9 · 28 + ___ = 29 = 1 · 13 + ___ = 17 = 4 · 14 + ___ = 19 = 5 · 12 + ___ = 20 = 8 · 31 + ___ = 43 = 12 · 28 + ___ = 38 = 10 · 27 + ___ = 30 = 3