



Mystery of the Sunken Compass

Grade 4 math · Rounding, Addition, Subtraction, Multiplication, Division · Reading level grades 5-6

Detective: _____ Date: _____

Someone raided the camp tent and took the ancient golden map wheel! Follow the clues to find out who stole it.

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	EXPEDITION GEAR	CAMP GADGET	COMPASS HAND	HAT STYLE	JUNGLE HAZARD
Morgan Vance	Machete Pack	Tracker Chip	Right Handed	Leather Cap	Swarm Insects
Rowan Wilder	Machete Pack	Laser Pointer	Left Handed	Leather Cap	Mud Pits
Taylor Reed	Rope Launcher	Pocket Radio	Right Handed	Pith Helmet	Poison Ivy
Sam Rivera	Rope Launcher	Laser Pointer	Left Handed	Pith Helmet	Poison Ivy
Reece Finch	Signal Whistle	Night Visor	Right Handed	Leather Cap	Mud Pits
Emerson Cole	Machete Pack	Tracker Chip	Right Handed	Leather Cap	Mud Pits
Hayden Brooks	Rope Launcher	Pocket Radio	Left Handed	Canvas Fedora	Poison Ivy
Parker Stone	Signal Flare	Tracker Chip	Right Handed	Pith Helmet	Poison Ivy
Sage Bennett	Solar Lantern	Mini Drone	Left Handed	Leather Cap	Mud Pits
Dakota Hayes	Machete Pack	Mini Drone	Right Handed	Leather Cap	Mud Pits
Dallas Croft	Machete Pack	Laser Pointer	Right Handed	Leather Cap	Swarm Insects
Ellis Hunter	Signal Whistle	Mini Drone	Right Handed	Leather Cap	Poison Ivy
Jamie West	Signal Flare	Tracker Chip	Left Handed	Leather Cap	Poison Ivy
Kai Logan	Signal Whistle	Mini Drone	Right Handed	Leather Cap	Mud Pits
Kendall Marsh	Rope Launcher	Tracker Chip	Left Handed	Canvas Fedora	Mud Pits
Lane Sterling	Solar Lantern	Mini Drone	Left Handed	Pith Helmet	Swarm Insects
Riley Sterling	Machete Pack	Mini Drone	Left Handed	Canvas Fedora	Poison Ivy
Casey Thorne	Signal Flare	Night Visor	Right Handed	Pith Helmet	Poison Ivy
Alex Drake	Signal Flare	Night Visor	Left Handed	Leather Cap	Poison Ivy
Jordan Blake	Signal Flare	Laser Pointer	Right Handed	Leather Cap	Mud Pits
Peyton Hale	Rope Launcher	Mini Drone	Right Handed	Canvas Fedora	Mud Pits

CLUE 1
Rounding

The digital camp radar rounds all distant movement markers to the nearest hundred meters.

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

T																	
1700	5000	130	900	200	130	300	70	20	430	20	200	30	1700	4300	900	130	300

T										
1700	2900	300	230	70	130	2900	230	5000	430	7000

Round 1,732 to the nearest hundred → **T**

Round 201 to the nearest hundred → **N**

Round 912 to the nearest hundred → **S**

Round 306 to the nearest hundred → **A**

Round 426 to the nearest ten → **I**

Round 226 to the nearest ten → **C**

Round 74 to the nearest ten → **K**

Round 134 to the nearest ten → **E**

Round 6,769 to the nearest thousand → **P**

Round 4,603 to the nearest thousand → **H**

Round 16 to the nearest ten → **D**

Round 29 to the nearest ten → **O**

Round 2,931 to the nearest hundred → **R**

Round 4,311 to the nearest hundred → **U**

Scratch space:

CLUE 2 Addition

You gather up the loose supply logs left behind and total all the dropped gear crates.

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

T									T				
4477	2315	3670	3487	4059	3487	9056	3670	6948	4477	2315	3670	9366	4410

											T						
6948	6808	5471	9056	3059	3487	3487	8658	3575	6699	8658	4647	2315	4477	2315	3059	3575	4410

$1759 + 2718 = \square \rightarrow \text{**T**}$

$1037 + 2022 = \square \rightarrow \text{**A**}$

$2667 + 5991 = \square \rightarrow \text{**I**}$

$2469 + 1106 = \square \rightarrow \text{**N**}$

$3363 + 3445 = \square \rightarrow \text{**O**}$

$3542 + 1929 = \square \rightarrow \text{**M**}$

$1666 + 1821 = \square \rightarrow \text{**S**}$

$2830 + 1580 = \square \rightarrow \text{**D**}$

$1726 + 1944 = \square \rightarrow \text{**E**}$

$3125 + 3574 = \square \rightarrow \text{**R**}$

$1365 + 950 = \square \rightarrow \text{**H**}$

$5141 + 3915 = \square \rightarrow \text{**P**}$

$3150 + 1497 = \square \rightarrow \text{**G**}$

$4978 + 4388 = \square \rightarrow \text{**L**}$

$2196 + 1863 = \square \rightarrow \text{**U**}$

$4449 + 2499 = \square \rightarrow \text{**C**}$

Scratch space:

CLUE 3
Subtraction

Comparing the full inventory list against remaining items shows exactly how much is missing.

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

T									T				T							
7456	7478	1301	8077	3474	3783	4841	1864	7456	2019	3474	4357	7456	6806	1864	4295	4295	1301	4841		
4128	4295	8077	5018	1143	4128	4841	4295	1864	T											

$8570 - 1114 = \square \rightarrow \text{**T**}$

$8842 - 4485 = \square \rightarrow \text{**S**}$

$6377 - 1359 = \square \rightarrow \text{**Y**}$

$8609 - 3768 = \square \rightarrow \text{**D**}$

$8079 - 3784 = \square \rightarrow \text{**P**}$

$6315 - 2187 = \square \rightarrow \text{**U**}$

$10244 - 2766 = \square \rightarrow \text{**H**}$

$7637 - 4163 = \square \rightarrow \text{**A**}$

$4564 - 3263 = \square \rightarrow \text{**E**}$

$2939 - 920 = \square \rightarrow \text{**W**}$

$3788 - 5 = \square \rightarrow \text{**N**}$

$4172 - 2308 = \square \rightarrow \text{**I**}$

$2317 - 1174 = \square \rightarrow \text{**M**}$

$12580 - 4503 = \square \rightarrow \text{**B**}$

$9206 - 2400 = \square \rightarrow \text{**R**}$

Scratch space:

Multiplication facts (1-12)

The main trail splits into equal grids so you calculate total square meters searched.

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

A number line from 0 to 100. The numbers 32, 56, 40, 9, 9, 2, 3, 44, 2, 45, 90, 6, 22, 55, 45, 9, 6, 55, 28, 9 are written in the boxes. The number 32 is highlighted in orange.

$4 \times 8 = \boxed{} \rightarrow \boxed{\text{S}}$

$9 \times 10 = \boxed{} \rightarrow \boxed{\text{R}}$

$11 \times 5 = \square \rightarrow \mathbf{G}$

$7 \times 8 = \square \rightarrow \boxed{\mathbf{P}}$

$$5 \times 8 = \boxed{} \rightarrow \boxed{0}$$

$9 \times 1 = \boxed{} \rightarrow \boxed{\text{T}}$

$9 \times 8 =$ $\rightarrow$ **C**

$9 \times 5 = \square \rightarrow \mathbf{A}$

$6 \times 1 = \boxed{} \rightarrow \boxed{1}$

$5 \times 10 = \square \rightarrow \boxed{\text{L}}$

$11 \times 4 = \boxed{} \rightarrow \boxed{\mathbf{W}}$

$1 \times 3 = \square \rightarrow \mathbf{D}$

$4 \times 7 = \square \rightarrow \mathbf{H}$

$11 \times 2 = \square \rightarrow \boxed{\mathbf{N}}$

$2 \times 1 = \boxed{} \rightarrow \boxed{\mathbf{E}}$

Scratch space:

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

You divide the leftover energy rations equally among search teams to double check squad routes.

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:

$3 \div 1 = \boxed{}$

$48 \div 4 = \boxed{}$

$50 \div 10 = \boxed{}$

$24 \div 12 = \boxed{}$

$36 \div 6 = \boxed{}$

$90 \div 10 = \boxed{}$

$56 \div 7 = \boxed{}$

$44 \div 11 = \boxed{}$

$56 \div 8 = \boxed{}$

$44 \div 4 = \boxed{}$

$120 \div 12 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain shot a bright beacon, then aimed a red laser.
2. The villain sounded the alarm, then tuned the pocket radio.
3. The villain hacked through vines, then scanned with a drone.
4. The villain lit up the dark trail, then dropped a tracker chip.
5. The villain sounded the alarm, then scanned with a drone.
6. The villain fired a climbing line, then flipped on night vision.
7. The villain sounded the alarm, then aimed a red laser.
8. The villain hacked through vines, then aimed a red laser.
9. The villain lit up the dark trail, then tuned the pocket radio.
10. The villain hacked through vines, then tuned the pocket radio.
11. The villain shot a bright beacon, then dropped a tracker chip.
12. The villain sounded the alarm, then flipped on night vision.

Answer Key

Mystery of the Sunken Compass

Culprit: Jordan Blake

Signal Flare · Laser Pointer · Right Handed · Leather Cap · Mud Pits

Trail: Start 21 → Clue 1 16 → Clue 2 9 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE SNEAK DID NOT USE A TRACKER CHIP"

Round 1,732 to the nearest hundred = 1700 (T) · Round 201 to the nearest hundred = 200 (N) · Round 912 to the nearest hundred = 900 (S) · Round 306 to the nearest hundred = 300 (A) · Round 426 to the nearest ten = 430 (I) · Round 226 to the nearest ten = 230 (C) · Round 74 to the nearest ten = 70 (K) · Round 134 to the nearest ten = 130 (E) · Round 6,769 to the nearest thousand = 7000 (P) · Round 4,603 to the nearest thousand = 5000 (H) · Round 16 to the nearest ten = 20 (D) · Round 29 to the nearest ten = 30 (O) · Round 2,931 to the nearest hundred = 2900 (R) · Round 4,311 to the nearest hundred = 4300 (U)

Clue 2 (Addition): "THE SUSPECT HELD COMPASS IN RIGHT HAND"

1759 + 2718 = 4477 (T) · 1037 + 2022 = 3059 (A) · 2667 + 5991 = 8658 (I) · 2469 + 1106 = 3575 (N) · 3363 + 3445 = 6808 (O) · 3542 + 1929 = 5471 (M) · 1666 + 1821 = 3487 (S) · 2830 + 1580 = 4410 (D) · 1726 + 1944 = 3670 (E) · 3125 + 3574 = 6699 (R) · 1365 + 950 = 2315 (H) · 5141 + 3915 = 9056 (P) · 3150 + 1497 = 4647 (G) · 4978 + 4388 = 9366 (L) · 2196 + 1863 = 4059 (U) · 4449 + 2499 = 6948 (C)

Clue 3 (Subtraction): "THE BANDIT WAS TRIPPED UP BY MUD PITS"

8570 - 1114 = 7456 (T) · 8842 - 4485 = 4357 (S) · 6377 - 1359 = 5018 (Y) · 8609 - 3768 = 4841 (D) · 8079 - 3784 = 4295 (P) · 6315 - 2187 = 4128 (U) · 10244 - 2766 = 7478 (H) · 7637 - 4163 = 3474 (A) · 4564 - 3263 = 1301 (E) · 2939 - 920 = 2019 (W) · 3788 - 5 = 3783 (N) · 4172 - 2308 = 1864 (I) · 2317 - 1174 = 1143 (M) · 12580 - 4503 = 8077 (B) · 9206 - 2400 = 6806 (R)

Clue 4 (Multiplication facts (1-12)): "SPOTTED WEARING A TIGHT LEATHER CAP"

$4 \times 8 = 32$ (S) · $9 \times 10 = 90$ (R) · $11 \times 5 = 55$ (G) · $7 \times 8 = 56$ (P) · $5 \times 8 = 40$ (O) · $9 \times 1 = 9$ (T) · $9 \times 8 = 72$ (C) · $9 \times 5 = 45$ (A) · $6 \times 1 = 6$ (I) · $5 \times 10 = 50$ (L) · $11 \times 4 = 44$ (W) · $1 \times 3 = 3$ (D) · $4 \times 7 = 28$ (H) · $11 \times 2 = 22$ (N) · $2 \times 1 = 2$ (E)

Clue 5 (Division facts (1-12)): surviving statement is box 1 → Jordan Blake

$3 \div 1 = 3$ · $48 \div 4 = 12$ · $50 \div 10 = 5$ · $24 \div 12 = 2$ · $36 \div 6 = 6$ · $90 \div 10 = 9$ · $56 \div 7 = 8$ · $44 \div 11 = 4$ · $56 \div 8 = 7$ · $44 \div 4 = 11$ · $120 \div 12 = 10$