The Case of the Golden Compass

Grade 3 math · Rounding, Addition, Subtraction, Multiplication, Division · Reading level grades 3-4

Detective: _____ **Date:** _____

Someone snuck into camp and took the legendary Golden Compass right off the chief explorer's desk! The Jungle Rescue Club must solve five math clues to track down 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 jungle rogue is _____

Possible suspects

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

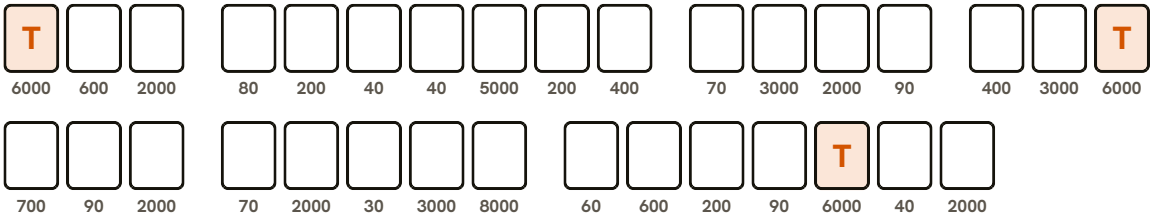
NAME	MAIN GEAR	EXTRA TOOL	WATCH COLOR	HELMET COLOR	JUNGLE MISHAP
Iris Grove	stealth glider	magnet gloves	silver watch	dark green helmet	startled by parrot
Eli Birch	sonar scanner	laser torch	silver watch	bright blue helmet	splashed with mud
Luke Stone	sonar scanner	laser torch	gold watch	bright blue helmet	tripped by vine
Toby Flint	sonar scanner	zip line wheel	gold watch	neon red helmet	startled by parrot
Sam Crest	stealth glider	magnet gloves	silver watch	bright blue helmet	tripped by vine
Ella Fern	mini drone	smoke bombs	silver watch	bright blue helmet	tripped by vine
Owen Trail	mini drone	magnet gloves	silver watch	neon red helmet	tripped by vine
Ruby Moss	grappling hook	magnet gloves	silver watch	bright blue helmet	tripped by vine
Ben Rivers	night vision goggles	magnet gloves	silver watch	dark green helmet	splashed with mud
Kai Sterling	stealth glider	decoy whistle	gold watch	neon red helmet	splashed with mud
Dash Horizon	stealth glider	zip line wheel	gold watch	neon red helmet	startled by parrot
Mia Drake	sonar scanner	laser torch	silver watch	neon red helmet	tripped by vine
Chloe Peak	grappling hook	zip line wheel	gold watch	dark green helmet	tripped by vine
Maya Swift	mini drone	zip line wheel	gold watch	neon red helmet	startled by parrot
Finn Forest	stealth glider	decoy whistle	silver watch	bright blue helmet	tripped by vine
Cole Wilder	stealth glider	laser torch	silver watch	bright blue helmet	tripped by vine
Ava Sterling	night vision goggles	smoke bombs	gold watch	bright blue helmet	splashed with mud
Leo Ranger	grappling hook	laser torch	gold watch	bright blue helmet	tripped by vine
Piper Scout	night vision goggles	zip line wheel	gold watch	neon red helmet	tripped by vine
Zoe Canyon	grappling hook	smoke bombs	silver watch	dark green helmet	splashed with mud
Lily Vanguard	stealth glider	laser torch	silver watch	neon red helmet	splashed with mud

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CLUE 1 Rounding

The fuzzy jungle radar screen only shows estimated distances rounded to the nearest ten.

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



Round 6,178 to the nearest thousand ☐ → T

Round 39 to the nearest ten ☐ → L

Round 32 to the nearest ten ☐ → C

Round 173 to the nearest hundred ☐ → I

Round 4,764 to the nearest thousand ☐ → A

Round 62 to the nearest ten ☐ → W

Round 76 to the nearest ten ☐ → V

Round 87 to the nearest ten ☐ → S

Round 697 to the nearest hundred ☐ → U

Round 67 to the nearest ten ☐ → D

Round 7,585 to the nearest thousand ☐ → Y

Round 411 to the nearest hundred ☐ → N

Round 2,842 to the nearest thousand ☐ → O

Round 638 to the nearest hundred ☐ → H

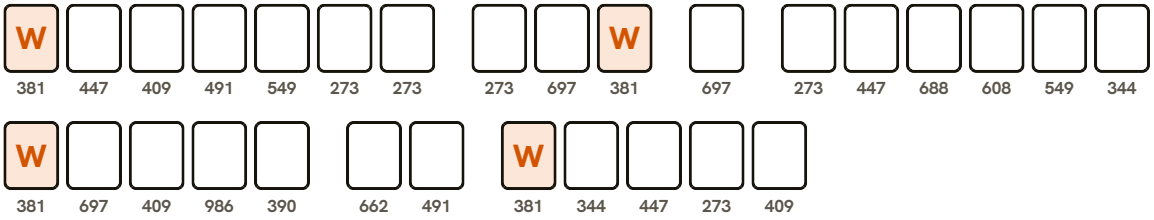
Round 2,266 to the nearest thousand ☐ → E

Scratch space:

CLUE 2 Addition

> The team tallied up the total number of rescue supplies gathered at camp.

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



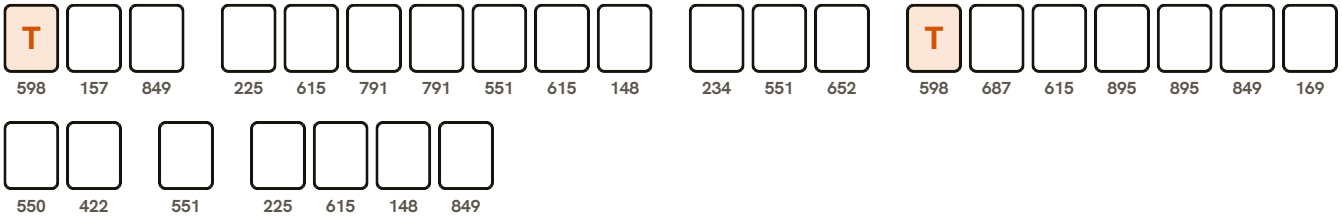
188 + 193 = ☐ → W	157 + 187 = ☐ → R	279 + 168 = ☐ → I
643 + 343 = ☐ → C	268 + 223 = ☐ → N	107 + 166 = ☐ → S
462 + 235 = ☐ → A	306 + 243 = ☐ → E	334 + 328 = ☐ → O
148 + 242 = ☐ → H	341 + 267 = ☐ → V	276 + 412 = ☐ → L
284 + 125 = ☐ → T		

Scratch space:

CLUE 3 Subtraction

> The scout counted how many trail markers were left after the storm destroyed some.

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



654 - 56 = ☐ → **T**

1232 - 383 = ☐ → **E**

692 - 5 = ☐ → **R**

1125 - 230 = ☐ → **P**

1002 - 387 = ☐ → **I**

757 - 206 = ☐ → **A**

768 - 218 = ☐ → **B**

1006 - 215 = ☐ → **L**

328 - 171 = ☐ → **H**

876 - 224 = ☐ → **S**

340 - 171 = ☐ → **D**

564 - 339 = ☐ → **V**

614 - 192 = ☐ → **Y**

397 - 163 = ☐ → **W**

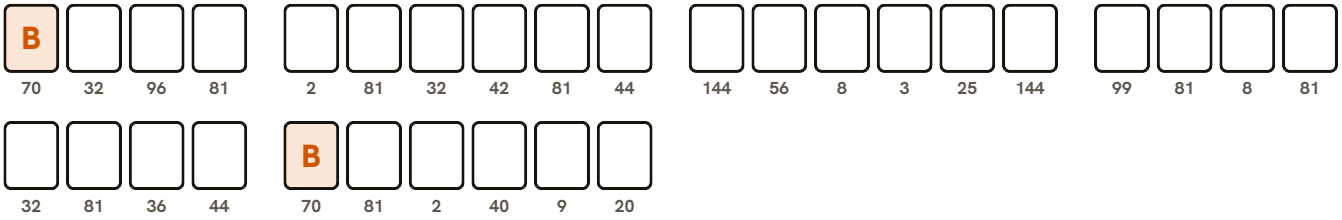
181 - 33 = ☐ → **N**

Scratch space:

CLUE 4 Multiplication facts (1-12)

> The guide counted equal rows of supply crates stacked inside the storage tent.

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



7 × 10 = ☐ → **B**

11 × 9 = ☐ → **W**

5 × 4 = ☐ → **D**

3 × 12 = ☐ → **F**

12 × 12 = ☐ → **S**

3 × 3 = ☐ → **N**

4 × 11 = ☐ → **T**

8 × 7 = ☐ → **C**

2 × 4 = ☐ → **R**

1 × 2 = ☐ → **H**

5 × 5 = ☐ → **P**

8 × 4 = ☐ → **L**

9 × 9 = ☐ → **E**

3 × 1 = ☐ → **A**

12 × 8 = ☐ → **U**

6 × 7 = ☐ → **M**

8 × 5 = ☐ → **I**

Scratch space:

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

> The explorers divided the total energy snacks equally among all rescue packs.

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:

12 ÷ 4 = ☐	88 ÷ 8 = ☐	32 ÷ 8 = ☐	4 ÷ 4 = ☐	63 ÷ 7 = ☐
36 ÷ 6 = ☐	40 ÷ 5 = ☐	22 ÷ 11 = ☐	21 ÷ 3 = ☐	90 ÷ 9 = ☐
36 ÷ 3 = ☐				

Step 2 - cross out the sentence with each answer:

1. The villain activated a sonar scanner, then dropped a smoke bomb.
2. The villain fired a grappling hook, then melted the lock with a laser torch.
3. The villain soared on a stealth glider, then grabbed the key with magnet gloves.
4. The villain launched a mini drone, then dropped a smoke bomb.
5. The villain fired a grappling hook, then grabbed the key with magnet gloves.
6. The villain fired a grappling hook, then dropped a smoke bomb.
7. The villain activated a sonar scanner, then zipped down a wire.
8. The villain launched a mini drone, then melted the lock with a laser torch.
9. The villain switched on night vision goggles, then melted the lock with a laser torch.
10. The villain launched a mini drone, then blew a decoy whistle.
11. The villain soared on a stealth glider, then melted the lock with a laser torch.
12. The villain fired a grappling hook, then blew a decoy whistle.

TEACHER / PARENT

Answer Key

The Case of the Golden Compass

Culprit: Ruby Moss

grappling hook · magnet gloves · silver watch · bright blue helmet · tripped by vine

Trail: Start 21 → Clue 1 19 → Clue 2 11 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE VILLAIN DOES NOT USE DECOY WHISTLE"

Round 6,178 to the nearest thousand = 6000 (T) · Round 39 to the nearest ten = 40 (L) · Round 32 to the nearest ten = 30 (C) · Round 173 to the nearest hundred = 200 (I) · Round 4,764 to the nearest thousand = 5000 (A) · Round 62 to the nearest ten = 60 (W) · Round 76 to the nearest ten = 80 (V) · Round 87 to the nearest ten = 90 (S) · Round 697 to the nearest hundred = 700 (U) · Round 67 to the nearest ten = 70 (D) · Round 7,585 to the nearest thousand = 8000 (Y) · Round 411 to the nearest hundred = 400 (N) · Round 2,842 to the nearest thousand = 3000 (O) · Round 638 to the nearest hundred = 600 (H) · Round 2,266 to the nearest thousand = 2000 (E)

Clue 2 (Addition): "WITNESS SAW A SILVER WATCH ON WRIST"

188 + 193 = 381 (W) · 157 + 187 = 344 (R) · 279 + 168 = 447 (I) · 643 + 343 = 986 (C) · 268 + 223 = 491 (N) · 107 + 166 = 273 (S) · 462 + 235 = 697 (A) · 306 + 243 = 549 (E) · 334 + 328 = 662 (O) · 148 + 242 = 390 (H) · 341 + 267 = 608 (V) · 276 + 412 = 688 (L) · 284 + 125 = 409 (T)

Clue 3 (Subtraction): "THE VILLAIN WAS TRIPPED BY A VINE"

654 - 56 = 598 (T) · 1232 - 383 = 849 (E) · 692 - 5 = 687 (R) · 1125 - 230 = 895 (P) · 1002 - 387 = 615 (I) · 757 - 206 = 551 (A) · 768 - 218 = 550 (B) · 1006 - 215 = 791 (L) · 328 - 171 = 157 (H) · 876 - 224 = 652 (S) · 340 - 171 = 169 (D) · 564 - 339 = 225 (V) · 614 - 192 = 422 (Y) · 397 - 163 = 234 (W) · 181 - 33 = 148 (N)

Clue 4 (Multiplication facts (1-12)): "BLUE HELMET SCRAPS WERE LEFT BEHIND"

7 × 10 = 70 (B) · 11 × 9 = 99 (W) · 5 × 4 = 20 (D) · 3 × 12 = 36 (F) · 12 × 12 = 144 (S) · 3 × 3 = 9 (N) · 4 × 11 = 44 (T) · 8 × 7 = 56 (C) · 2 × 4 = 8 (R) · 1 × 2 = 2 (H) · 5 × 5 = 25 (P) · 8 × 4 = 32 (L) · 9 × 9 = 81 (E) · 3 × 1 = 3 (A) · 12 × 8 = 96 (U) · 6 × 7 = 42 (M) · 8 × 5 = 40 (I)

Clue 5 (Division facts (1-12)): surviving statement is box 5 → Ruby Moss

12 ÷ 4 = 3 · 88 ÷ 8 = 11 · 32 ÷ 8 = 4 · 4 ÷ 4 = 1 · 63 ÷ 7 = 9 · 36 ÷ 6 = 6 · 40 ÷ 5 = 8 · 22 ÷ 11 = 2 · 21 ÷ 3 = 7 · 90 ÷ 9 = 10 · 36 ÷ 3 = 12