



The Lost Emerald of Jungle Island

Grade 6 math · Subtraction, Addition, Multiplication, Word problems, Division · Reading level grades 3-4

Detective: _____ **Date:** _____

An emergency at the camp! Someone broke into the main tent and snatched the legendary Golden Emerald. The Chief Archeologist is stranded at the ruins without their map. We need to find which rogue explorer did it before they escape the island!

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	PRIMARY GEAR	BACKUP TOOL	DOMINANT HAND	HAIR COLOR	KNOWN PHOBIA
Lara	Laser Torch	Rope Ladder	Right Handed	Bright Red Hair	Afraid of Heights
Penny	Laser Torch	Walkie Talkie	Right Handed	Bright Red Hair	Scared of Spiders
Leo	Laser Torch	Rope Ladder	Right Handed	Dusty Brown Hair	Hates Thick Mud
Marcus	Grappling Hook	Walkie Talkie	Right Handed	Sandy Blonde Hair	Afraid of Heights
Maya	Laser Torch	Rope Ladder	Right Handed	Dusty Brown Hair	Afraid of Heights
Diego	Metal Detector	Handy Binoculars	Right Handed	Bright Red Hair	Afraid of Heights
Toby	Decoder Ring	Rope Ladder	Right Handed	Bright Red Hair	Afraid of Heights
Zack	Metal Detector	Rope Ladder	Right Handed	Bright Red Hair	Scared of Spiders
Indiana	Laser Torch	Rope Ladder	Left Handed	Dusty Brown Hair	Scared of Spiders
Cleo	Decoder Ring	Smoke Bomb	Left Handed	Bright Red Hair	Afraid of Heights
Ben	Metal Detector	Handy Binoculars	Left Handed	Bright Red Hair	Scared of Spiders
Sam	Grappling Hook	Handy Binoculars	Right Handed	Bright Red Hair	Scared of Spiders
Annie	Grappling Hook	Walkie Talkie	Left Handed	Bright Red Hair	Afraid of Heights
Hazel	Decoder Ring	Walkie Talkie	Right Handed	Dusty Brown Hair	Afraid of Heights
Carter	Decoder Ring	Old Map Scroll	Left Handed	Dusty Brown Hair	Scared of Spiders
Cody	Decoder Ring	Walkie Talkie	Right Handed	Sandy Blonde Hair	Afraid of Heights
Sadie	Laser Torch	Smoke Bomb	Left Handed	Bright Red Hair	Scared of Spiders
Abigail	Metal Detector	Walkie Talkie	Right Handed	Bright Red Hair	Afraid of Heights
Flint	Decoder Ring	Old Map Scroll	Right Handed	Bright Red Hair	Hates Thick Mud
Sally	Decoder Ring	Smoke Bomb	Right Handed	Bright Red Hair	Afraid of Heights
Rusty	Grappling Hook	Rope Ladder	Left Handed	Sandy Blonde Hair	Hates Thick Mud

Subtraction

We found the rogue's supply pack, but some gear fell out. Let's subtract the lost items to see what is left.

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

6844 5891 3735 4888 4381 6169 6169 5284 4381 3344 3903 8375 3735 1084 3344 8375 6844

5891 5284 4888 3735 1143 4381 3344 8375 5277 1513 6169 5284 2674 1084

$9524 - 2680 = \boxed{} \rightarrow \mathbf{T}$

$3999 - 96 = \boxed{} \rightarrow \boxed{\text{D}}$

$$4534 - 1860 = \boxed{} \rightarrow \boxed{\text{R}}$$

$1378 - 294 = \boxed{} \rightarrow \boxed{\text{S}}$

$$7516 - 3135 = \boxed{} \rightarrow \boxed{\text{I}}$$

$$5564 - 4051 = \boxed{} \rightarrow \boxed{\text{U}}$$

$$6602 - 711 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$7008 - 839 = \boxed{} \rightarrow \boxed{\text{L}}$$

$$9332 - 4055 = \boxed{} \rightarrow \boxed{\text{C}}$$

5396 - 112 = → **A**

$5369 - 1634 = \boxed{} \rightarrow \boxed{\text{E}}$

$3104 - 1961 = \boxed{} \rightarrow \boxed{\mathbf{B}}$

$$5362 - 474 = \boxed{} \rightarrow \boxed{\mathbf{V}}$$

3889 - 545 = → **N**

$$9689 - 1314 = \boxed{} \rightarrow \boxed{0}$$

Scratch space:

CLUE 2 Addition

To open the temple gate, we must add up the total number of golden stone blocks found by our team.

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

T							T										
7802	7645	8129	5516	5334	4361	5559	7802	5773	8129	3794	8668	5559	4715	8376	8129	8376	
				T								T					
5334	3425	8129	3425	7802	7645	8129	4361	8376	8376	4361	5516	7645	7802	7645	5869	5745	2403

$2461 + 5341 = \square \rightarrow \text{**T**}$

$1181 + 2244 = \square \rightarrow \text{**S**}$

$4442 + 4226 = \square \rightarrow \text{**P**}$

$2338 + 3221 = \square \rightarrow \text{**L**}$

$2901 + 2844 = \square \rightarrow \text{**N**}$

$3432 + 2084 = \square \rightarrow \text{**G**}$

$2125 + 1669 = \square \rightarrow \text{**X**}$

$1818 + 3955 = \square \rightarrow \text{**Y**}$

$4420 + 3956 = \square \rightarrow \text{**R**}$

$2858 + 1857 = \square \rightarrow \text{**O**}$

$3283 + 2051 = \square \rightarrow \text{**U**}$

$2584 + 1777 = \square \rightarrow \text{**I**}$

$3339 + 2530 = \square \rightarrow \text{**A**}$

$3040 + 4605 = \square \rightarrow \text{**H**}$

$1107 + 1296 = \square \rightarrow \text{**D**}$

$3524 + 4605 = \square \rightarrow \text{**E**}$

Scratch space:

CLUE 3

Multiplication facts (1-12)

The temple floor has a grid of skull tiles. We can multiply the rows and columns to find the safe path.

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

T								T	T										T
3	96	121	70	14	70	55	121	7	3	3	50	121	33	49	48	121	8	18	3

T			T									
3	96	121	3	18	48	48	7	48	5	54	54	

$3 \times 1 = \square \rightarrow \boxed{\text{T}}$

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

$7 \times 10 = \square \rightarrow \boxed{\text{S}}$

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

$1 \times 7 = \square \rightarrow \boxed{\text{C}}$

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

$9 \times 2 = \square \rightarrow \boxed{\text{A}}$

$1 \times 5 = \square \rightarrow \boxed{\text{I}}$

$7 \times 7 = \square \rightarrow \boxed{\text{B}}$

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

$8 \times 1 = \square \rightarrow \boxed{\text{D}}$

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

$6 \times 9 = \square \rightarrow \boxed{\text{F}}$

$6 \times 8 = \square \rightarrow \boxed{\text{L}}$

$12 \times 8 = \square \rightarrow \boxed{\text{H}}$

Scratch space:

CLUE 4

Word problems

We found a page from the rogue's notebook. Solve the riddle about their journey to unlock the next clue.

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

A strand of B D A hair turned up at the scene.

There were 80 ancient maps. 30 were used up. How many ancient maps are left?

Answer: → B

There were 140 bronze keys. 27 were used up. How many bronze keys are left?

Answer: → R

There were 76 torch batteries. 10 were used up. How many torch batteries are left?

Answer: → E

Explorer Sam found 63 golden coins yesterday and 21 more today. How many golden coins in all?

Answer: → G

Explorer Sam found 89 torch batteries yesterday and 13 more today. How many torch batteries in all?

Answer: → T

Explorer Sam found 18 bronze keys yesterday and 40 more today. How many bronze keys in all?

Answer: → H

There were 144 jungle vines. 35 were used up. How many jungle vines are left?

Answer: → I

Scratch space:

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

The local monkeys will only let us pass if we share our bananas equally. Divide them up to get the final clue.

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:

$45 \div 9 = \boxed{}$

$30 \div 10 = \boxed{}$

$44 \div 4 = \boxed{}$

$36 \div 6 = \boxed{}$

$96 \div 8 = \boxed{}$

$30 \div 3 = \boxed{}$

$28 \div 7 = \boxed{}$

$9 \div 9 = \boxed{}$

$64 \div 8 = \boxed{}$

$9 \div 1 = \boxed{}$

$77 \div 11 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain decoded the ancient wall symbols, then spotted a shortcut through the trees.
2. The villain melted the locked iron gate, then climbed up a tall stone wall.
3. The villain found the hidden trapdoor, then called a getaway helicopter.
4. The villain melted the locked iron gate, then called a getaway helicopter.
5. The villain decoded the ancient wall symbols, then vanished in a cloud of grey smoke.
6. The villain navigated the dark maze, then vanished in a cloud of grey smoke.
7. The villain swung across the crocodile pit, then vanished in a cloud of grey smoke.
8. The villain found the hidden trapdoor, then spotted a shortcut through the trees.
9. The villain melted the locked iron gate, then vanished in a cloud of grey smoke.
10. The villain decoded the ancient wall symbols, then called a getaway helicopter.
11. The villain decoded the ancient wall symbols, then climbed up a tall stone wall.
12. The villain navigated the dark maze, then spotted a shortcut through the trees.

Answer Key

The Lost Emerald of Jungle Island

Culprit: Lara

Laser Torch · Rope Ladder · Right Handed · Bright Red Hair · Afraid of Heights

Trail: Start 21 → Clue 1 18 → Clue 2 12 → Clue 3 8 → Clue 4 4 → Clue 5 1

Clue 1 (Subtraction): "THE VILLAIN DOES NOT HAVE BINOCULARS"

9524 - 2680 = 6844 (T) · 3999 - 96 = 3903 (D) · 4534 - 1860 = 2674 (R) · 1378 - 294 = 1084 (S) · 7516 - 3135 = 4381 (I) · 5564 - 4051 = 1513 (U) · 6602 - 711 = 5891 (H) · 7008 - 839 = 6169 (L) · 9332 - 4055 = 5277 (C) · 5396 - 112 = 5284 (A) · 5369 - 1634 = 3735 (E) · 3104 - 1961 = 1143 (B) · 5362 - 474 = 4888 (V) · 3889 - 545 = 3344 (N) · 9689 - 1314 = 8375 (O)

Clue 2 (Addition): "THE GUILTY EXPLORER USES THEIR RIGHT HAND"

2461 + 5341 = 7802 (T) · 1181 + 2244 = 3425 (S) · 4442 + 4226 = 8668 (P) · 2338 + 3221 = 5559 (L) · 2901 + 2844 = 5745 (N) · 3432 + 2084 = 5516 (G) · 2125 + 1669 = 3794 (X) · 1818 + 3955 = 5773 (Y) · 4420 + 3956 = 8376 (R) · 2858 + 1857 = 4715 (O) · 3283 + 2051 = 5334 (U) · 2584 + 1777 = 4361 (I) · 3339 + 2530 = 5869 (A) · 3040 + 4605 = 7645 (H) · 1107 + 1296 = 2403 (D) · 3524 + 4605 = 8129 (E)

Clue 3 (Multiplication facts (1-12)): "THE SUSPECT TREMBLED AT THE TALL CLIFF"

$3 \times 1 = 3$ (T) · $11 \times 11 = 121$ (E) · $7 \times 10 = 70$ (S) · $11 \times 3 = 33$ (M) · $1 \times 7 = 7$ (C) · $5 \times 10 = 50$ (R) · $9 \times 2 = 18$ (A) · $1 \times 5 = 5$ (I) · $7 \times 7 = 49$ (B) · $7 \times 2 = 14$ (U) · $8 \times 1 = 8$ (D) · $5 \times 11 = 55$ (P) · $6 \times 9 = 54$ (F) · $6 \times 8 = 48$ (L) · $12 \times 8 = 96$ (H)

Clue 4 (Word problems): "BRIGHT RED HAIR"

There were 80 ancient maps. 30 were used up. How many ancient maps are left? = 50 (B) · There were 140 bronze keys. 27 were used up. How many bronze keys are left? = 113 (R) · There were 76 torch batteries. 10 were used up. How many torch batteries are left? = 66 (E) · Explorer Sam found 63 golden coins yesterday and 21 more today. How many golden coins in all? = 84 (G) · Explorer Sam found 89 torch batteries yesterday and 13 more today. How many torch batteries in all? = 102 (T) · Explorer Sam found 18 bronze keys yesterday and 40 more today. How many bronze keys in all? = 58 (H) · There were 144 jungle vines. 35 were used up. How many jungle vines are left? = 109 (I)

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

$45 \div 9 = 5$ · $30 \div 10 = 3$ · $44 \div 4 = 11$ · $36 \div 6 = 6$ · $96 \div 8 = 12$ · $30 \div 3 = 10$ · $28 \div 7 = 4$ · $9 \div 9 = 1$ · $64 \div 8 = 8$ · $9 \div 1 = 9$ · $77 \div 11 = 7$