The Mystery of the Golden Sun Idol

Grade 5 math · Addition, Subtraction, Fractions of a number, Order of operations, Division · Reading level grades 5-6

Detective: _____ **Date:** _____

Professor Pembleton golden compass went missing right before the expedition entered the Sun Temple! One sneaky explorer snatched it to reach the treasure first. Track down the rogue explorer before they unlock the inner vault!

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.

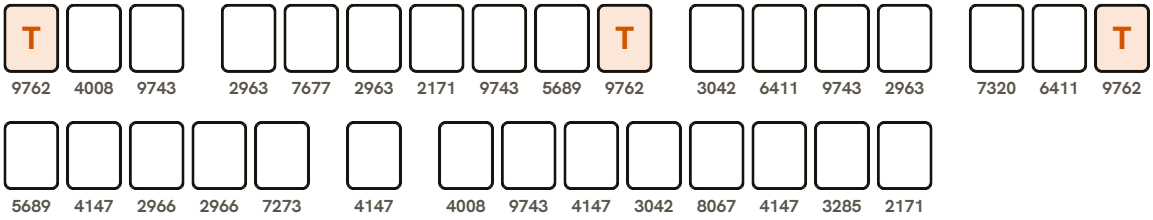
NAME	EXPLORATION TOOL	SPECIAL GEAR	PARCHMENT MARK	HAT STYLE	JUNGLE TRAP
Freya Stark	Machete	Climbing Boots	Left-handed stamp	Pith Helmet	Pitfall Trap
Gertrude Bell	Grappling Hook	Canteen	Left-handed stamp	Pith Helmet	Boulder Roll
Clara Expedition	Grappling Hook	Climbing Boots	Left-handed stamp	Pith Helmet	Boulder Roll
Leo Vance	Grappling Hook	Climbing Boots	Left-handed stamp	Leather Fedora	Pitfall Trap
Lara Finch	Brass Telescope	Canteen	Right-handed stamp	Leather Fedora	Boulder Roll
Nora Quigley	Machete	Canteen	Right-handed stamp	Pith Helmet	Boulder Roll
Isabella Rios	Machete	Leather Gloves	Right-handed stamp	Leather Fedora	Pitfall Trap
Nellie Bly	Signal Flare	Headlamp	Left-handed stamp	Pith Helmet	Boulder Roll
Carter Brooks	Signal Flare	Leather Gloves	Right-handed stamp	Feathered Cap	Boulder Roll
Victor Stone	Grappling Hook	Compass Case	Right-handed stamp	Leather Fedora	Pitfall Trap
Percy Fawcett	Jungle Map	Leather Gloves	Left-handed stamp	Feathered Cap	Snapping Net
Maya Lin	Machete	Headlamp	Right-handed stamp	Leather Fedora	Snapping Net
Diego Thorne	Brass Telescope	Climbing Boots	Left-handed stamp	Leather Fedora	Boulder Roll
Marco Vance	Brass Telescope	Compass Case	Left-handed stamp	Feathered Cap	Boulder Roll
Rosa Cruz	Signal Flare	Leather Gloves	Left-handed stamp	Pith Helmet	Boulder Roll
Samuel Baker	Brass Telescope	Climbing Boots	Left-handed stamp	Pith Helmet	Boulder Roll
Julian Sterling	Brass Telescope	Leather Gloves	Left-handed stamp	Feathered Cap	Boulder Roll
Amelia Vance	Signal Flare	Climbing Boots	Right-handed stamp	Feathered Cap	Pitfall Trap
Indiana Drake	Brass Telescope	Headlamp	Right-handed stamp	Pith Helmet	Boulder Roll
Edmund Hillary	Machete	Canteen	Left-handed stamp	Pith Helmet	Pitfall Trap
Hiram Bingham	Grappling Hook	Canteen	Left-handed stamp	Leather Fedora	Boulder Roll

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CLUE 1 Addition

You total up the supply crates found near the temple entrance to see which scout left their gear behind.

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



3550 + 6212 = ☐ → T	2196 + 1089 = ☐ → M	2413 + 1595 = ☐ → H
965 + 1998 = ☐ → S	1725 + 1317 = ☐ → D	979 + 1192 = ☐ → P
5583 + 4160 = ☐ → E	2059 + 907 = ☐ → R	2760 + 5307 = ☐ → L
2593 + 1554 = ☐ → A	3230 + 3181 = ☐ → O	3174 + 4099 = ☐ → Y
2715 + 2974 = ☐ → C	2632 + 4688 = ☐ → N	4548 + 3129 = ☐ → U

Scratch space:

CLUE 2 Subtraction

> You calculate the remaining steps on the ancient stone staircase by subtracting the broken steps from the total count.

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



7476 - 4854 = ☐ → T	4707 - 299 = ☐ → S	5874 - 3475 = ☐ → L
7921 - 2154 = ☐ → D	3807 - 140 = ☐ → P	4445 - 596 = ☐ → A
8902 - 4819 = ☐ → W	8646 - 1317 = ☐ → I	8294 - 1892 = ☐ → E
7844 - 2970 = ☐ → N	8431 - 1697 = ☐ → F	3509 - 2220 = ☐ → M
5640 - 3194 = ☐ → H		

Scratch space:

CLUE 3 Fractions of a number

You work out what fraction of the glowing runic tiles were activated on the temple floor.

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

T								T							
11	23	29	36	34	36	18	29	5	11	38	3	38	17	29	38	8

22	3	34	7	38	29	15	15	3	7	7

1/10 of 110 = ☐ → T

4/8 of 14 = ☐ → L

1/8 of 40 = ☐ → C

3/6 of 76 = ☐ → D

1/10 of 30 = ☐ → O

1/2 of 44 = ☐ → B

3/10 of 120 = ☐ → S

4/8 of 36 = ☐ → P

2/8 of 32 = ☐ → A

4/8 of 58 = ☐ → E

1/6 of 90 = ☐ → R

2/4 of 34 = ☐ → G

2/10 of 115 = ☐ → H

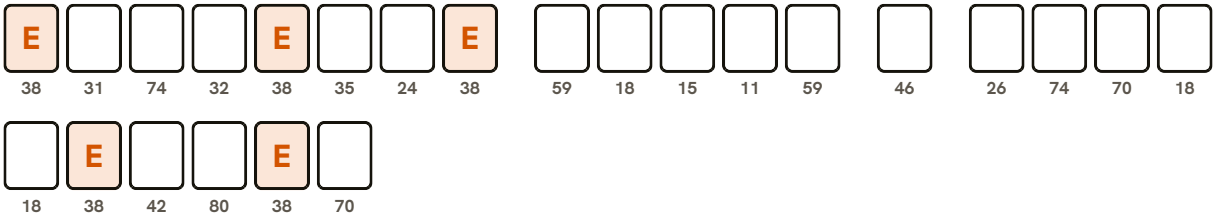
2/6 of 102 = ☐ → U

Scratch space:

CLUE 4 Order of operations

You follow the step by step sequence listed on the ancient stone tablet to solve the door puzzle.

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



6 × 9 - 16 = ☐ → E	16 + 8 × 2 = ☐ → D	34 + 5 × 8 = ☐ → I
3 + 4 × 7 = ☐ → V	3 × 8 - 9 = ☐ → O	10 + 6 × 6 = ☐ → A
2 + 3 × 3 = ☐ → W	8 × 10 - 10 = ☐ → T	10 × 4 - 16 = ☐ → C
9 × 7 - 21 = ☐ → L	11 × 8 - 29 = ☐ → S	10 + 4 × 2 = ☐ → H
31 + 2 × 2 = ☐ → N	5 × 9 - 19 = ☐ → P	24 + 8 × 7 = ☐ → M

Scratch space:

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

> You divide the total weight of the golden artifacts equally among the pack mules to clear the trail.

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:

72 ÷ 9 = ☐	9 ÷ 3 = ☐	49 ÷ 7 = ☐	99 ÷ 11 = ☐	4 ÷ 2 = ☐
44 ÷ 4 = ☐	10 ÷ 2 = ☐	1 ÷ 1 = ☐	48 ÷ 12 = ☐	80 ÷ 8 = ☐
72 ÷ 12 = ☐				

Step 2 - cross out the sentence with each answer:

1. The villain scouted the temple roof with a brass telescope, then pulled on heavy leather gloves.
2. The villain cleared the dense vines with a machete, then laced up sturdy climbing boots.
3. The villain scouted the temple roof with a brass telescope, then laced up sturdy climbing boots.
4. The villain lit up the dark cavern with a signal flare, then latched a protective compass case.
5. The villain scouted the temple roof with a brass telescope, then latched a protective compass case.
6. The villain lit up the dark cavern with a signal flare, then switched on a bright headlamp.
7. The villain swung across the ravine with a grappling hook, then laced up sturdy climbing boots.
8. The villain lit up the dark cavern with a signal flare, then pulled on heavy leather gloves.
9. The villain navigated the maze using a jungle map, then took a drink from a canteen.
10. The villain swung across the ravine with a grappling hook, then latched a protective compass case.
11. The villain lit up the dark cavern with a signal flare, then took a drink from a canteen.
12. The villain swung across the ravine with a grappling hook, then took a drink from a canteen.

TEACHER / PARENT

Answer Key

The Mystery of the Golden Sun Idol

Culprit: Gertrude Bell

Grappling Hook · Canteen · Left-handed stamp · Pith Helmet · Boulder Roll

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

Clue 1 (Addition): "THE SUSPECT DOES NOT CARRY A HEADLAMP"

3550 + 6212 = 9762 (T) · 2196 + 1089 = 3285 (M) · 2413 + 1595 = 4008 (H) · 965 + 1998 = 2963 (S) · 1725 + 1317 = 3042 (D) · 979 + 1192 = 2171 (P) · 5583 + 4160 = 9743 (E) · 2059 + 907 = 2966 (R) · 2760 + 5307 = 8067 (L) · 2593 + 1554 = 4147 (A) · 3230 + 3181 = 6411 (O) · 3174 + 4099 = 7273 (Y) · 2715 + 2974 = 5689 (C) · 2632 + 4688 = 7320 (N) · 4548 + 3129 = 7677 (U)

Clue 2 (Subtraction): "THE WITNESS SAW A LEFT HANDED STAMP"

7476 - 4854 = 2622 (T) · 4707 - 299 = 4408 (S) · 5874 - 3475 = 2399 (L) · 7921 - 2154 = 5767 (D) · 3807 - 140 = 3667 (P) · 4445 - 596 = 3849 (A) · 8902 - 4819 = 4083 (W) · 8646 - 1317 = 7329 (I) · 8294 - 1892 = 6402 (E) · 7844 - 2970 = 4874 (N) · 8431 - 1697 = 6734 (F) · 3509 - 2220 = 1289 (M) · 5640 - 3194 = 2446 (H)

Clue 3 (Fractions of a number): "THE SUSPECT DODGED A BOULDER ROLL"

1/10 of 110 = 11 (T) · 4/8 of 14 = 7 (L) · 1/8 of 40 = 5 (C) · 3/6 of 76 = 38 (D) · 1/10 of 30 = 3 (O) · 1/2 of 44 = 22 (B) · 3/10 of 120 = 36 (S) · 4/8 of 36 = 18 (P) · 2/8 of 32 = 8 (A) · 4/8 of 58 = 29 (E) · 1/6 of 90 = 15 (R) · 2/4 of 34 = 17 (G) · 2/10 of 115 = 23 (H) · 2/6 of 102 = 34 (U)

Clue 4 (Order of operations): "EVIDENCE SHOWS A PITH HELMET"

6 × 9 - 16 = 38 (E) · 16 + 8 × 2 = 32 (D) · 34 + 5 × 8 = 74 (I) · 3 + 4 × 7 = 31 (V) · 3 × 8 - 9 = 15 (O) · 10 + 6 × 6 = 46 (A) · 2 + 3 × 3 = 11 (W) · 8 × 10 - 10 = 70 (T) · 10 × 4 - 16 = 24 (C) · 9 × 7 - 21 = 42 (L) · 11 × 8 - 29 = 59 (S) · 10 + 4 × 2 = 18 (H) · 31 + 2 × 2 = 35 (N) · 5 × 9 - 19 = 26 (P) · 24 + 8 × 7 = 80 (M)

Clue 5 (Division facts (1-12)): surviving statement is box 12 → Gertrude Bell

72 ÷ 9 = 8 · 9 ÷ 3 = 3 · 49 ÷ 7 = 7 · 99 ÷ 11 = 9 · 4 ÷ 2 = 2 · 44 ÷ 4 = 11 · 10 ÷ 2 = 5 · 1 ÷ 1 = 1 · 48 ÷ 12 = 4 · 80 ÷ 8 = 10 · 72 ÷ 12 = 6