



The Mystery of the Lost Crystal Idol

Grade 6 math · Percentages, Exponents, Order of operations, Multiplication, Division · Reading level grades 5-6

Detective: _____ Date: _____

Someone broke into the temple vault and snatched the Ancient Crystal Idol. Solve the clues around the dig site to catch the culprit 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 thief is _____

Possible suspects

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

NAME	TOOL	GEAR	HABIT	HAIR STYLE	FEAR
Marco Polo	Pocket Compass	Steel Canteen	Right Handed	Spiky Hair	Bright Flashes
Lara Croft	Pocket Compass	Waterproof Map	Left Handed	Braided Hair	Bee Swarms
Ernest Shackleton	Decoder Ring	Leather Satchel	Left Handed	Braided Hair	Loud Drums
Elena Fisher	Smoke Bomb	Steel Canteen	Left Handed	Braided Hair	Bee Swarms
Charles Darwin	Flashlight	Jungle Boots	Left Handed	Braided Hair	Bright Flashes
Nathan Drake	Pocket Compass	Steel Canteen	Left Handed	Braided Hair	Bee Swarms
David Livingstone	Flashlight	Climbing Harness	Left Handed	Curly Hair	Bee Swarms
Jacques Cousteau	Decoder Ring	Climbing Harness	Left Handed	Braided Hair	Bee Swarms
Amelia Earhart	Decoder Ring	Leather Satchel	Left Handed	Spiky Hair	Bee Swarms
Sully Victor	Pocket Compass	Jungle Boots	Left Handed	Curly Hair	Bright Flashes
Evelyn Carnahan	Grappling Hook	Waterproof Map	Right Handed	Curly Hair	Loud Drums
Percy Fawcett	Grappling Hook	Steel Canteen	Left Handed	Braided Hair	Bright Flashes
Edmund Hillary	Grappling Hook	Jungle Boots	Left Handed	Braided Hair	Bright Flashes
Freya Stark	Decoder Ring	Leather Satchel	Left Handed	Braided Hair	Bee Swarms
MacGyver	Flashlight	Leather Satchel	Left Handed	Curly Hair	Loud Drums
Gertrude Bell	Flashlight	Jungle Boots	Right Handed	Spiky Hair	Bright Flashes
Matthew Henson	Flashlight	Steel Canteen	Left Handed	Spiky Hair	Bright Flashes
Indiana Jones	Flashlight	Leather Satchel	Left Handed	Spiky Hair	Loud Drums
Jack Sparrow	Decoder Ring	Climbing Harness	Left Handed	Spiky Hair	Bright Flashes
Nellie Bly	Pocket Compass	Climbing Harness	Right Handed	Braided Hair	Bee Swarms
Thor Heyerdahl	Pocket Compass	Jungle Boots	Left Handed	Braided Hair	Bright Flashes

CLUE 1 Percentages

The camp ledger lists the percentage of jungle supplies remaining after the break in.

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

T									T							T
7	42	25	38	45	38	34	25	16	7	10	40	25	38	3	40	7
									T					T		
16	11	20	20	32	11	36	25	11	7	42	25	20	38	11	7	16

$50\% \text{ of } 14 = \square \rightarrow \boxed{\text{T}}$

$20\% \text{ of } 15 = \square \rightarrow \boxed{\text{N}}$

$5\% \text{ of } 500 = \square \rightarrow \boxed{\text{E}}$

$5\% \text{ of } 400 = \square \rightarrow \boxed{\text{R}}$

$40\% \text{ of } 90 = \square \rightarrow \boxed{\text{L}}$

$40\% \text{ of } 40 = \square \rightarrow \boxed{\text{C}}$

$25\% \text{ of } 136 = \square \rightarrow \boxed{\text{P}}$

$20\% \text{ of } 200 = \square \rightarrow \boxed{\text{O}}$

$40\% \text{ of } 105 = \square \rightarrow \boxed{\text{H}}$

$10\% \text{ of } 100 = \square \rightarrow \boxed{\text{D}}$

$10\% \text{ of } 320 = \square \rightarrow \boxed{\text{Y}}$

$75\% \text{ of } 60 = \square \rightarrow \boxed{\text{U}}$

$50\% \text{ of } 76 = \square \rightarrow \boxed{\text{S}}$

$20\% \text{ of } 55 = \square \rightarrow \boxed{\text{A}}$

Scratch space:

CLUE 2
Exponents

A digital keypad on the temple gate calculates access codes using powers and exponents.

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

T										T					T
9	8	81	243	121	144	64	196	400	9	144	81	324	9		

	T									T					
16	9	196	25	361	125	81	144	81	324	9	8	25	361	32	

				T		
64	196	400	361	9	16	

$3^2 = \square \rightarrow$ T	$2^3 = \square \rightarrow$ H	$11^2 = \square \rightarrow$ U	$20^2 = \square \rightarrow$ I
$4^2 = \square \rightarrow$ S	$14^2 = \square \rightarrow$ R	$8^2 = \square \rightarrow$ P	$5^3 = \square \rightarrow$ G
$3^4 = \square \rightarrow$ E	$12^2 = \square \rightarrow$ L	$5^2 = \square \rightarrow$ A	$3^5 = \square \rightarrow$ C
$18^2 = \square \rightarrow$ F	$19^2 = \square \rightarrow$ N	$2^5 = \square \rightarrow$ D	

Scratch space:

CLUE 3
Order of operations

To unlock the temple ruin map, you must solve a multi step equation in the correct order.

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

T			T											T				
9	43	49	9	43	65	49	6	6	56	49	44	60	6	9	49	66		
	T	T				T												
60	9	9	66	60	16	9	65	31	28	23	49	49	40	69	60	66	36	40

$5 + 2 \times 2 = \square \rightarrow \boxed{\text{T}}$

$9 \times 6 - 5 = \square \rightarrow \boxed{\text{E}}$

$9 \times 7 - 3 = \square \rightarrow \boxed{\text{A}}$

$11 \times 7 - 8 = \square \rightarrow \boxed{\text{W}}$

$32 + 2 \times 2 = \square \rightarrow \boxed{\text{M}}$

$2 + 2 \times 2 = \square \rightarrow \boxed{\text{F}}$

$7 + 2 \times 8 = \square \rightarrow \boxed{\text{B}}$

$32 + 3 \times 4 = \square \rightarrow \boxed{\text{D}}$

$20 + 4 \times 9 = \square \rightarrow \boxed{\text{L}}$

$10 \times 6 - 29 = \square \rightarrow \boxed{\text{N}}$

$12 \times 7 - 18 = \square \rightarrow \boxed{\text{R}}$

$4 + 8 \times 3 = \square \rightarrow \boxed{\text{G}}$

$7 \times 11 - 12 = \square \rightarrow \boxed{\text{I}}$

$1 + 6 \times 7 = \square \rightarrow \boxed{\text{H}}$

$6 \times 6 - 20 = \square \rightarrow \boxed{\text{C}}$

$4 + 4 \times 9 = \square \rightarrow \boxed{\text{S}}$

Scratch space:

CLUE 4

Multiplication facts (1-12)

The archeologist counted the total carved stone tiles arranged in equal rows.

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

E				E			E												
40	99	25	90	40	55	132	40	1	72	110	42	1	63	24	110	55	81		
													E						
1	60	7	63	55	90	110	3	35	7	63	25	90	40	90	72	63	25	7	

$10 \times 4 = \square \rightarrow \text{E}$

$9 \times 7 = \square \rightarrow \text{A}$

$12 \times 11 = \square \rightarrow \text{C}$

$5 \times 7 = \square \rightarrow \text{B}$

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

$7 \times 6 = \square \rightarrow \text{W}$

$1 \times 7 = \square \rightarrow \text{R}$

$11 \times 10 = \square \rightarrow \text{O}$

$10 \times 6 = \square \rightarrow \text{T}$

$5 \times 11 = \square \rightarrow \text{N}$

$9 \times 9 = \square \rightarrow \text{G}$

$6 \times 12 = \square \rightarrow \text{H}$

$6 \times 4 = \square \rightarrow \text{L}$

$11 \times 9 = \square \rightarrow \text{V}$

$3 \times 1 = \square \rightarrow \text{F}$

$10 \times 9 = \square \rightarrow \text{D}$

$1 \times 1 = \square \rightarrow \text{S}$

Scratch space:

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

The expedition team needs to divide the remaining rations equally among all tents.

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:

$3 \div 1 = \boxed{}$

$6 \div 1 = \boxed{}$

$55 \div 11 = \boxed{}$

$12 \div 1 = \boxed{}$

$20 \div 2 = \boxed{}$

$24 \div 6 = \boxed{}$

$11 \div 11 = \boxed{}$

$27 \div 3 = \boxed{}$

$55 \div 5 = \boxed{}$

$24 \div 12 = \boxed{}$

$48 \div 6 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain unlocked the stone door with a decoder ring, then took a quick drink from a steel canteen.
2. The villain lit up the hidden passage using a flashlight, then stashed the idol inside a leather satchel.
3. The villain unlocked the stone door with a decoder ring, then scaled the ancient wall with a climbing harness.
4. The villain unlocked the stone door with a decoder ring, then stashed the idol inside a leather satchel.
5. The villain vanished in a cloud using a smoke bomb, then took a quick drink from a steel canteen.
6. The villain navigated the dark tunnels with a pocket compass, then checked the route on a waterproof map.
7. The villain navigated the dark tunnels with a pocket compass, then took a quick drink from a steel canteen.
8. The villain navigated the dark tunnels with a pocket compass, then stashed the idol inside a leather satchel.
9. The villain unlocked the stone door with a decoder ring, then escaped quietly in sturdy jungle boots.
10. The villain swung across the pit with a grappling hook, then checked the route on a waterproof map.
11. The villain lit up the hidden passage using a flashlight, then scaled the ancient wall with a climbing harness.
12. The villain swung across the pit with a grappling hook, then stashed the idol inside a leather satchel.

Answer Key

The Mystery of the Lost Crystal Idol

Culprit: Nathan Drake

Pocket Compass · Steel Canteen · Left Handed · Braided Hair · Bee Swarms

Trail: Start 21 → Clue 1 16 → Clue 2 12 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Percentages): "THE SUSPECT DOES NOT CARRY A LEATHER SATCHEL"

50% of 14 = 7 (T) · 20% of 15 = 3 (N) · 5% of 500 = 25 (E) · 5% of 400 = 20 (R) · 40% of 90 = 36 (L) · 40% of 40 = 16 (C) · 25% of 136 = 34 (P) · 20% of 200 = 40 (O) · 40% of 105 = 42 (H) · 10% of 100 = 10 (D) · 10% of 320 = 32 (Y) · 75% of 60 = 45 (U) · 50% of 76 = 38 (S) · 20% of 55 = 11 (A)

Clue 2 (Exponents): "THE CULPRIT LEFT STRANGE LEFT HAND PRINTS"

$3^2 = 9$ (T) · $2^3 = 8$ (H) · $11^2 = 121$ (U) · $20^2 = 400$ (I) · $4^2 = 16$ (S) · $14^2 = 196$ (R) · $8^2 = 64$ (P) · $5^3 = 125$ (G) · $3^4 = 81$ (E) · $12^2 = 144$ (L) · $5^2 = 25$ (A) · $3^5 = 243$ (C) · $18^2 = 324$ (F) · $19^2 = 361$ (N) · $2^5 = 32$ (D)

Clue 3 (Order of operations): "THE THIEF FLED AFTER ATTRACTING BEE SWARMS"

$5 + 2 \times 2 = 9$ (T) · $9 \times 6 - 5 = 49$ (E) · $9 \times 7 - 3 = 60$ (A) · $11 \times 7 - 8 = 69$ (W) · $32 + 2 \times 2 = 36$ (M) · $2 + 2 \times 2 = 6$ (F) · $7 + 2 \times 8 = 23$ (B) · $32 + 3 \times 4 = 44$ (D) · $20 + 4 \times 9 = 56$ (L) · $10 \times 6 - 29 = 31$ (N) · $12 \times 7 - 18 = 66$ (R) · $4 + 8 \times 3 = 28$ (G) · $7 \times 11 - 12 = 65$ (I) · $1 + 6 \times 7 = 43$ (H) · $6 \times 6 - 20 = 16$ (C) · $4 + 4 \times 9 = 40$ (S)

Clue 4 (Multiplication facts (1-12)): "EVIDENCE SHOWS A LONG STRAND OF BRAIDED HAIR"

$10 \times 4 = 40$ (E) · $9 \times 7 = 63$ (A) · $12 \times 11 = 132$ (C) · $5 \times 7 = 35$ (B) · $5 \times 5 = 25$ (I) · $7 \times 6 = 42$ (W) · $1 \times 7 = 7$ (R) · $11 \times 10 = 110$ (O) · $10 \times 6 = 60$ (T) · $5 \times 11 = 55$ (N) · $9 \times 9 = 81$ (G) · $6 \times 12 = 72$ (H) · $6 \times 4 = 24$ (L) · $11 \times 9 = 99$ (V) · $3 \times 1 = 3$ (F) · $10 \times 9 = 90$ (D) · $1 \times 1 = 1$ (S)

Clue 5 (Division facts (1-12)): surviving statement is box 7 → Nathan Drake

$3 \div 1 = 3$ · $6 \div 1 = 6$ · $55 \div 11 = 5$ · $12 \div 1 = 12$ · $20 \div 2 = 10$ · $24 \div 6 = 4$ · $11 \div 11 = 1$ · $27 \div 3 = 9$ · $55 \div 5 = 11$ · $24 \div 12 = 2$ · $48 \div 6 = 8$