



The Sun-Dial Temple Heist

Grade 5 math · Place value, Fractions of a number, Order of operations, Multiplication, Division · Reading level grades 5-6

Detective: _____ **Date:** _____

Someone has swapped the legendary Golden Toucan statue with a painted clay fake! The Chief Museum Curator needs the Junior Explorer Club to track down the rogue explorer who took 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	GEAR USED	SURVIVAL SKILL	COMPASS TYPE	HAIR COLOR LEFT BEHIND	HIDDEN PHOBIA
Eve Baird	Climbing Claws	Lockpicking	uses a silver compass	dusty brown hair	scared of spiders
Cassandra Cillian	Pocket Glider	Lockpicking	uses a brass compass	bright orange hair	allergic to pollen
Nathan Drake	Pocket Glider	Vine Swinging	uses a brass compass	dusty brown hair	dislikes loud noises
Mac McHale	Grappling Hook	Lockpicking	uses a silver compass	bright orange hair	scared of spiders
Riley Poole	Laser Pointer	Map Decoding	uses a brass compass	bright orange hair	dislikes loud noises
Piper McLean	Smoke Bomb	Map Decoding	uses a silver compass	bright orange hair	allergic to pollen
Stone Jenkins	Pocket Glider	Animal Mimicry	uses a silver compass	midnight black hair	dislikes loud noises
Carter Kane	Smoke Bomb	Vine Swinging	uses a brass compass	bright orange hair	dislikes loud noises
Alan Grant	Smoke Bomb	Lockpicking	uses a brass compass	midnight black hair	dislikes loud noises
Indy Jones	Laser Pointer	Lockpicking	uses a brass compass	midnight black hair	dislikes loud noises
Ben Gates	Climbing Claws	Vine Swinging	uses a brass compass	bright orange hair	scared of spiders
Ezekiel Jones	Pocket Glider	Wall Running	uses a brass compass	midnight black hair	allergic to pollen
Abigail Chase	Pocket Glider	Wall Running	uses a brass compass	bright orange hair	dislikes loud noises
Leo Valdez	Laser Pointer	Map Decoding	uses a brass compass	midnight black hair	dislikes loud noises
Sadie Kane	Smoke Bomb	Map Decoding	uses a brass compass	midnight black hair	scared of spiders
Evelyn Carnahan	Pocket Glider	Vine Swinging	uses a silver compass	bright orange hair	scared of spiders
Lara Croft	Climbing Claws	Map Decoding	uses a brass compass	midnight black hair	dislikes loud noises
Claire Redfield	Climbing Claws	Wall Running	uses a brass compass	midnight black hair	dislikes loud noises
Flynn Carson	Pocket Glider	Animal Mimicry	uses a brass compass	dusty brown hair	allergic to pollen
Percy Jackson	Smoke Bomb	Map Decoding	uses a silver compass	midnight black hair	allergic to pollen
Ellie Sattler	Laser Pointer	Animal Mimicry	uses a silver compass	bright orange hair	allergic to pollen

CLUE 1 Place value

You find an ancient stone combination lock on a temple chest. The digits must be shifted by examining their place values. Cracking the lock reveals a secret note about the thief.

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

T			T											T				
10	9000	4000	10	9000	7000	4000	80	800	200	4000	1000	300	200	10	40	3000	700	700
500	60	300																

What is the value of the 1 in 869,214? → **T**

What is the value of the 7 in 127,648? → **I**

What is the value of the 8 in 173,780? → **F**

What is the value of the 8 in 474,845? → **D**

What is the value of the 3 in 22,385? → **N**

What is the value of the 9 in 429,623? → **H**

What is the value of the 2 in 80,203? → **O**

What is the value of the 4 in 66,646? → **W**

What is the value of the 1 in 831,524? → **S**

What is the value of the 3 in 643,698? → **A**

What is the value of the 6 in 531,261? → **U**

What is the value of the 5 in 727,519? → **R**

What is the value of the 7 in 156,716? → **L**

What is the value of the 4 in 224,961? → **E**

Scratch space:

CLUE 2
Fractions of a number

A local guide offers a hint in exchange for some snacks. You must calculate a specific fraction of your supply pack to share with him fairly.

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

T																	
16	9	11	21	22	21	6	11	34	16	37	12	4	6	6	11	37	40

33	12	40	21	21	34	4	32	6	40	21	21	

$8/10 \text{ of } 20 = \square \rightarrow \boxed{\text{T}}$

$1/10 \text{ of } 90 = \square \rightarrow \boxed{\text{H}}$

$2/5 \text{ of } 30 = \square \rightarrow \boxed{\text{R}}$

$5/10 \text{ of } 68 = \square \rightarrow \boxed{\text{C}}$

$1/2 \text{ of } 74 = \square \rightarrow \boxed{\text{D}}$

$6/10 \text{ of } 10 = \square \rightarrow \boxed{\text{P}}$

$1/6 \text{ of } 132 = \square \rightarrow \boxed{\text{U}}$

$2/5 \text{ of } 100 = \square \rightarrow \boxed{\text{A}}$

$6/8 \text{ of } 44 = \square \rightarrow \boxed{\text{B}}$

$2/4 \text{ of } 22 = \square \rightarrow \boxed{\text{E}}$

$1/4 \text{ of } 128 = \square \rightarrow \boxed{\text{M}}$

$5/10 \text{ of } 8 = \square \rightarrow \boxed{\text{O}}$

$2/6 \text{ of } 63 = \square \rightarrow \boxed{\text{S}}$

Scratch space:

CLUE 3
Order of operations

To cross a shaky rope bridge, you must step on the wooden planks in the exact order of operations. Getting across safely lets you read a warning carved on the other side.

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

T																			
61	78	38	14	56	60	60	36	56	53	26	78	58	36	53	63	62	58	15	13
36	60	15	72	69	76	78	56	26	61	60	38								

$9 \times 7 - 2 = \square \rightarrow \boxed{T}$

$8 + 2 \times 3 = \square \rightarrow \boxed{V}$

$36 + 6 \times 4 = \square \rightarrow \boxed{L}$

$10 \times 10 - 28 = \square \rightarrow \boxed{U}$

$6 \times 11 - 13 = \square \rightarrow \boxed{N}$

$7 + 2 \times 3 = \square \rightarrow \boxed{M}$

$1 + 7 \times 2 = \square \rightarrow \boxed{O}$

$8 \times 11 - 25 = \square \rightarrow \boxed{K}$

$11 \times 6 - 8 = \square \rightarrow \boxed{R}$

$8 \times 12 - 18 = \square \rightarrow \boxed{H}$

$8 \times 8 - 8 = \square \rightarrow \boxed{I}$

$7 \times 10 - 1 = \square \rightarrow \boxed{D}$

$20 + 6 \times 3 = \square \rightarrow \boxed{E}$

$8 \times 12 - 20 = \square \rightarrow \boxed{W}$

$10 \times 3 - 4 = \square \rightarrow \boxed{S}$

$12 \times 6 - 10 = \square \rightarrow \boxed{F}$

$5 \times 12 - 24 = \square \rightarrow \boxed{A}$

Scratch space:

Multiplication facts (1-12)

The camp leader needs to pack the crates. You count the rows of supply tins using multiplication to unlock the equipment locker containing a clue.

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

12	3	5	28	120	66	99	1	54	99	66	54	144	40	100	35	9	132	45	25
40	132	54	44	28	66	100	40	3	12	132	9	9							

$$3 \times 4 = \boxed{} \rightarrow \boxed{\mathbf{W}}$$

$$6 \times 9 = \boxed{} \rightarrow \boxed{\text{I}}$$

$12 \times 11 = \boxed{} \rightarrow \boxed{\mathbf{A}}$

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

$$5 \times 5 = \boxed{} \rightarrow \boxed{\text{K}}$$

$$12 \times 10 = \boxed{} \rightarrow \boxed{\mathbf{U}}$$

$1 \times 1 = \boxed{} \rightarrow \boxed{\mathbf{M}}$

$11 \times 6 = \boxed{} \rightarrow \boxed{\text{N}}$

$12 \times 12 = \boxed{} \rightarrow \boxed{\text{G}}$

$10 \times 4 = \boxed{} \rightarrow \boxed{\text{H}}$

$3 \times 1 = \boxed{} \rightarrow \boxed{\text{E}}$

$10 \times 10 = \boxed{} \rightarrow \boxed{\text{T}}$

$$7 \times 4 = \boxed{} \rightarrow \boxed{0}$$

$11 \times 4 = \boxed{} \rightarrow \boxed{\text{R}}$

$9 \times 5 = \boxed{} \rightarrow \boxed{\text{C}}$

$1 \times 5 = \boxed{} \rightarrow \boxed{\mathbf{F}}$

$9 \times 11 = \boxed{} \rightarrow \boxed{\text{D}}$

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

Scratch space:

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

You find a bundle of ancient map pieces. Dividing them equally among your team members ensures everyone has a section to study, revealing the final detail.

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:

$11 \div 11 = \boxed{}$

$20 \div 4 = \boxed{}$

$100 \div 10 = \boxed{}$

$2 \div 1 = \boxed{}$

$56 \div 7 = \boxed{}$

$48 \div 8 = \boxed{}$

$14 \div 2 = \boxed{}$

$24 \div 2 = \boxed{}$

$18 \div 6 = \boxed{}$

$54 \div 6 = \boxed{}$

$12 \div 3 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain unlocked the heavy bronze vault, then escaped through the secret tunnel.
2. The villain swiped the golden toucan statue, then zipped down the canopy line.
3. The villain slid down the giant stone banister, then disappeared into the thick jungle.
4. The villain unlocked the heavy bronze vault, then disappeared into the thick jungle.
5. The villain sneaked past the sleeping guard dog, then leaped into a fast motorboat.
6. The villain slid down the giant stone banister, then scrambled up the muddy riverbank.
7. The villain swiped the golden toucan statue, then disappeared into the thick jungle.
8. The villain swiped the golden toucan statue, then scrambled up the muddy riverbank.
9. The villain slid down the giant stone banister, then escaped through the secret tunnel.
10. The villain bypassed the ancient dart trap, then escaped through the secret tunnel.
11. The villain bypassed the ancient dart trap, then leaped into a fast motorboat.
12. The villain bypassed the ancient dart trap, then scrambled up the muddy riverbank.

Answer Key

The Sun-Dial Temple Heist

Culprit: Indy Jones

Laser Pointer · Lockpicking · uses a brass compass · midnight black hair · dislikes loud noises

Trail: Start 21 → Clue 1 18 → Clue 2 11 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE THIEF DOES NOT WALL RUN"

What is the value of the 1 in 869,214? = 10 (T) · What is the value of the 7 in 127,648? = 7000 (I) · What is the value of the 8 in 173,780? = 80 (F) · What is the value of the 8 in 474,845? = 800 (D) · What is the value of the 3 in 22,385? = 300 (N) · What is the value of the 9 in 429,623? = 9000 (H) · What is the value of the 2 in 80,203? = 200 (O) · What is the value of the 4 in 66,646? = 40 (W) · What is the value of the 1 in 831,524? = 1000 (S) · What is the value of the 3 in 643,698? = 3000 (A) · What is the value of the 6 in 531,261? = 60 (U) · What is the value of the 5 in 727,519? = 500 (R) · What is the value of the 7 in 156,716? = 700 (L) · What is the value of the 4 in 224,961? = 4000 (E)

Clue 2 (Fractions of a number): "THE SUSPECT DROPPED A BRASS COMPASS"

8/10 of 20 = 16 (T) · 1/10 of 90 = 9 (H) · 2/5 of 30 = 12 (R) · 5/10 of 68 = 34 (C) · 1/2 of 74 = 37 (D) · 6/10 of 10 = 6 (P) · 1/6 of 132 = 22 (U) · 2/5 of 100 = 40 (A) · 6/8 of 44 = 33 (B) · 2/4 of 22 = 11 (E) · 1/4 of 128 = 32 (M) · 5/10 of 8 = 4 (O) · 2/6 of 63 = 21 (S)

Clue 3 (Order of operations): "THE VILLAIN SHRANK FROM A LOUD WHISTLE"

$9 \times 7 - 2 = 61$ (T) · $8 + 2 \times 3 = 14$ (V) · $36 \div 6 \times 4 = 60$ (L) · $10 \times 10 - 28 = 72$ (U) · $6 \times 11 - 13 = 53$ (N) · $7 + 2 \times 3 = 13$ (M) · $1 + 7 \times 2 = 15$ (O) · $8 \times 11 - 25 = 63$ (K) · $11 \times 6 - 8 = 58$ (R) · $8 \times 12 - 18 = 78$ (H) · $8 \times 8 - 8 = 56$ (I) · $7 \times 10 - 1 = 69$ (D) · $20 \div 6 \times 3 = 38$ (E) · $8 \times 12 - 20 = 76$ (W) · $10 \times 3 - 4 = 26$ (S) · $12 \times 6 - 10 = 62$ (F) · $5 \times 12 - 24 = 36$ (A)

Clue 4 (Multiplication facts (1-12)): "WE FOUND MIDNIGHT BLACK HAIR ON THE WALL"

$3 \times 4 = 12$ (W) · $6 \times 9 = 54$ (I) · $12 \times 11 = 132$ (A) · $1 \times 9 = 9$ (L) · $5 \times 5 = 25$ (K) · $12 \times 10 = 120$ (U) · $1 \times 1 = 1$ (M) · $11 \times 6 = 66$ (N) · $12 \times 12 = 144$ (G) · $10 \times 4 = 40$ (H) · $3 \times 1 = 3$ (E) · $10 \times 10 = 100$ (T) · $7 \times 4 = 28$ (O) · $11 \times 4 = 44$ (R) · $9 \times 5 = 45$ (C) · $1 \times 5 = 5$ (F) · $9 \times 11 = 99$ (D) · $5 \times 7 = 35$ (B)

Clue 5 (Division facts (1-12)): surviving statement is box 11 → Indy Jones

$11 \div 11 = 1$ · $20 \div 4 = 5$ · $100 \div 10 = 10$ · $2 \div 1 = 2$ · $56 \div 7 = 8$ · $48 \div 8 = 6$ · $14 \div 2 = 7$ · $24 \div 2 = 12$ · $18 \div 6 = 3$ · $54 \div 6 = 9$ · $12 \div 3 = 4$