



The Golden Compass Caper

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

Detective: _____ **Date:** _____

A daring thief has stolen the legendary Golden Compass right out of the Whispering Temple! The Chief Museum Curator needs your help to track down the suspect before they escape Isla Dorado forever. Use your math skills to decode the clues left behind on the jungle trail.

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 Archaeologist is _____

Possible suspects

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

NAME	ESCAPE GEAR	RELIC POWER	HANDEDNESS	HAIR STYLE	FENDED OFF BY
Vasco	Glider Pack	Fire Crystal	Right Handed	Curly Brown Hair	Loud Whistle
Drake	Grappling Hook	Sun Stone	Right Handed	Curly Brown Hair	Sneeze Powder
Clark	Glider Pack	Star Map	Left Handed	Curly Brown Hair	Loud Whistle
Raleigh	Glider Pack	Sun Stone	Right Handed	Curly Brown Hair	Bright Flashlight
Nellie	Laser Cutter	Wind Whistle	Right Handed	Curly Brown Hair	Sneeze Powder
Amelia	Smoke Bomb	Star Map	Right Handed	Braided Red Hair	Bright Flashlight
Carter	Grappling Hook	Wind Whistle	Right Handed	Curly Brown Hair	Sneeze Powder
Magellan	Glider Pack	Fire Crystal	Left Handed	Spiky Blond Hair	Bright Flashlight
Indiana	Decoy Drone	Fire Crystal	Left Handed	Curly Brown Hair	Bright Flashlight
Bingham	Laser Cutter	Fire Crystal	Left Handed	Braided Red Hair	Loud Whistle
Hudson	Laser Cutter	Fire Crystal	Left Handed	Spiky Blond Hair	Loud Whistle
Livingstone	Glider Pack	Star Map	Left Handed	Spiky Blond Hair	Bright Flashlight
Marco	Smoke Bomb	Sun Stone	Left Handed	Curly Brown Hair	Sneeze Powder
Cousteau	Laser Cutter	Sun Stone	Right Handed	Braided Red Hair	Sneeze Powder
Cabot	Grappling Hook	Wind Whistle	Left Handed	Spiky Blond Hair	Sneeze Powder
Solo	Glider Pack	Shadow Cloak	Right Handed	Spiky Blond Hair	Bright Flashlight
Lewis	Grappling Hook	Wind Whistle	Right Handed	Spiky Blond Hair	Sneeze Powder
Bell	Grappling Hook	Sun Stone	Right Handed	Curly Brown Hair	Loud Whistle
Jones	Decoy Drone	Shadow Cloak	Right Handed	Curly Brown Hair	Sneeze Powder
Earhart	Grappling Hook	Sun Stone	Left Handed	Curly Brown Hair	Sneeze Powder
Finch	Grappling Hook	Fire Crystal	Right Handed	Curly Brown Hair	Sneeze Powder

CLUE 1 Rounding

Our digital radar scanned the escape route but the distance readings were blurry. We rounded the kilometers to the nearest ten to pinpoint the first clue.

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

T																		T
170	2000	30	50	2900	7000	4300	20	700	9000	30	3700	700	7000	30	50	20	7000	170
				T														
2000	3000	130	30	170	2000	30	50	2000	3000	700	7000	430	2900	3700	7000	3000	1700	

Round 166 to the nearest ten → **T**

Round 3,669 to the nearest hundred → **L**

Round 4,279 to the nearest hundred → **U**

Round 19 to the nearest ten → **N**

Round 1,676 to the nearest hundred → **K**

Round 7,487 to the nearest thousand → **O**

Round 27 to the nearest ten → **E**

Round 673 to the nearest hundred → **D**

Round 3,393 to the nearest thousand → **A**

Round 2,946 to the nearest hundred → **C**

Round 128 to the nearest ten → **V**

Round 2,383 to the nearest thousand → **H**

Round 9,258 to the nearest thousand → **R**

Round 46 to the nearest ten → **S**

Round 426 to the nearest ten → **W**

Scratch space:

CLUE 2

Fractions of a number

A torn parchment lay on the muddy trail showing a fraction of the temple map. Calculating the exact meters remaining revealed where the thief dropped the next lead.

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

F														
35	22	22	9	39	13	2	4	9	14	14	33	22	32	18

												F				
14	9	13	22	4	6	8	13	13	2	6	33	9	35	22	22	9

$2/10 \text{ of } 175 = \square \rightarrow \text{F}$

$1/6 \text{ of } 198 = \square \rightarrow \text{H}$

$2/3 \text{ of } 3 = \square \rightarrow \text{I}$

$1/6 \text{ of } 78 = \square \rightarrow \text{R}$

$1/5 \text{ of } 30 = \square \rightarrow \text{G}$

$3/8 \text{ of } 24 = \square \rightarrow \text{T}$

$8/10 \text{ of } 40 = \square \rightarrow \text{W}$

$1/6 \text{ of } 48 = \square \rightarrow \text{E}$

$4/8 \text{ of } 78 = \square \rightarrow \text{P}$

$2/5 \text{ of } 55 = \square \rightarrow \text{O}$

$2/3 \text{ of } 6 = \square \rightarrow \text{N}$

$2/3 \text{ of } 27 = \square \rightarrow \text{A}$

$7/8 \text{ of } 16 = \square \rightarrow \text{S}$

Scratch space:

CLUE 3
Order of operations

To open the heavy stone vault where the thief rested we faced an equation etched on the wall. Solving the steps in the correct order unlocked the clue.

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

T																			
9	42	53	25	29	19	10	53	70	15	53	53	73	53	28	32	25	29	39	

T						
9	42	53	41	29	65	28

$1 + 4 \times 2 = \square \rightarrow$ T	$4 \times 10 - 8 = \square \rightarrow$ F	$8 \times 11 - 18 = \square \rightarrow$ S
$1 + 2 \times 7 = \square \rightarrow$ N	$7 \times 10 - 29 = \square \rightarrow$ P	$37 + 4 \times 4 = \square \rightarrow$ E
$7 \times 3 - 2 = \square \rightarrow$ G	$8 \times 6 - 9 = \square \rightarrow$ M	$2 \times 10 - 10 = \square \rightarrow$ U
$48 + 5 \times 5 = \square \rightarrow$ Z	$7 \times 6 - 13 = \square \rightarrow$ O	$8 \times 5 - 15 = \square \rightarrow$ R
$10 \times 5 - 8 = \square \rightarrow$ H	$9 \times 8 - 7 = \square \rightarrow$ W	$3 + 5 \times 5 = \square \rightarrow$ D

Scratch space:

Multiplication facts (1-12)

We found grids of supply crates abandoned by the fleeing suspect in the brush. Multiplying the rows of gear gave us the next clue about the thief.

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

A number line from 0 to 1000. The line is divided into segments by vertical tick marks. Below the line, numbers are written in each segment: 20, 11, 132, 96, 54, 10, 5, 70, 54, 1, 45, 100, 90, 1, 96, 20, 10. The number 20 is highlighted in orange. Above the line, the word 'two' is written in orange in the segment corresponding to the highlighted 20.

$$5 \times 4 = \boxed{} \rightarrow \boxed{\mathbf{W}}$$

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

$11 \times 12 = \boxed{} \rightarrow \boxed{\text{F}}$

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

$10 \times 7 = \boxed{} \rightarrow \boxed{\text{C}}$

$9 \times 10 = \boxed{} \rightarrow \boxed{\text{B}}$

$2 \times 2 = \square \rightarrow \boxed{\mathbf{T}}$

$5 \times 1 = \boxed{} \rightarrow \boxed{\text{D}}$

$$1 \times 12 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$10 \times 11 = \boxed{} \rightarrow \boxed{\mathbf{K}}$$

$$12 \times 8 = \boxed{} \rightarrow \boxed{0}$$

$8 \times 4 = \boxed{} \rightarrow \boxed{\mathbf{A}}$

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

$5 \times 2 = \boxed{} \rightarrow \boxed{\text{N}}$

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

$12 \times 10 = \boxed{} \rightarrow \boxed{\text{I}}$

$$1 \times 11 = \boxed{} \rightarrow \boxed{\mathbf{E}}$$

Scratch space:

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

At the edge of the jungle canyon we had to divide the safety ropes equally among our search team. Doing the division correctly led us straight to 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:

$88 \div 11 = \boxed{}$

$36 \div 6 = \boxed{}$

$12 \div 1 = \boxed{}$

$60 \div 12 = \boxed{}$

$18 \div 9 = \boxed{}$

$14 \div 2 = \boxed{}$

$12 \div 12 = \boxed{}$

$11 \div 1 = \boxed{}$

$20 \div 5 = \boxed{}$

$18 \div 2 = \boxed{}$

$36 \div 12 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain soared from the high tower with a glider, then navigated the jungle trail with the star map.
2. The villain sliced through the metal vault with a laser, then navigated the jungle trail with the star map.
3. The villain soared from the high tower with a glider, then conjured a dust storm using the wind whistle.
4. The villain distracted the guards with a decoy drone, then blinded the pursuers using the sun stone.
5. The villain swung across the canyon with a grappling hook, then slipped past the cameras using the shadow cloak.
6. The villain swung across the canyon with a grappling hook, then melted the temple gate with the fire crystal.
7. The villain vanished in a thick cloud of smoke, then conjured a dust storm using the wind whistle.
8. The villain sliced through the metal vault with a laser, then conjured a dust storm using the wind whistle.
9. The villain soared from the high tower with a glider, then melted the temple gate with the fire crystal.
10. The villain swung across the canyon with a grappling hook, then conjured a dust storm using the wind whistle.
11. The villain soared from the high tower with a glider, then slipped past the cameras using the shadow cloak.
12. The villain swung across the canyon with a grappling hook, then blinded the pursuers using the sun stone.

Answer Key

The Golden Compass Caper

Culprit: Carter

Grappling Hook · Wind Whistle · Right Handed · Curly Brown Hair · Sneeze Powder

Trail: Start 21 → Clue 1 19 → Clue 2 10 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE SCOUNDREL DOES NOT HAVE THE SHADOW CLOAK"

Round 166 to the nearest ten = 170 (T) · Round 3,669 to the nearest hundred = 3700 (L) · Round 4,279 to the nearest hundred = 4300 (U) · Round 19 to the nearest ten = 20 (N) · Round 1,676 to the nearest hundred = 1700 (K) · Round 7,487 to the nearest thousand = 7000 (O) · Round 27 to the nearest ten = 30 (E) · Round 673 to the nearest hundred = 700 (D) · Round 3,393 to the nearest thousand = 3000 (A) · Round 2,946 to the nearest hundred = 2900 (C) · Round 128 to the nearest ten = 130 (V) · Round 2,383 to the nearest thousand = 2000 (H) · Round 9,258 to the nearest thousand = 9000 (R) · Round 46 to the nearest ten = 50 (S) · Round 426 to the nearest ten = 430 (W)

Clue 2 (Fractions of a number): "FOOTPRINTS SHOW A STRONGER RIGHT FOOT"

$2/10$ of 175 = 35 (F) · $1/6$ of 198 = 33 (H) · $2/3$ of 3 = 2 (I) · $1/6$ of 78 = 13 (R) · $1/5$ of 30 = 6 (G) · $3/8$ of 24 = 9 (T) · $8/10$ of 40 = 32 (W) · $1/6$ of 48 = 8 (E) · $4/8$ of 78 = 39 (P) · $2/5$ of 55 = 22 (O) · $2/3$ of 6 = 4 (N) · $2/3$ of 27 = 18 (A) · $7/8$ of 16 = 14 (S)

Clue 3 (Order of operations): "THE ROGUE SNEEZED FROM THE POWDER"

$1 + 4 \times 2 = 9$ (T) · $4 \times 10 - 8 = 32$ (F) · $8 \times 11 - 18 = 70$ (S) · $1 + 2 \times 7 = 15$ (N) · $7 \times 10 - 29 = 41$ (P) · $37 + 4 \times 4 = 53$ (E) · $7 \times 3 - 2 = 19$ (G) · $8 \times 6 - 9 = 39$ (M) · $2 \times 10 - 10 = 10$ (U) · $48 + 5 \times 5 = 73$ (Z) · $7 \times 6 - 13 = 29$ (O) · $8 \times 5 - 15 = 25$ (R) · $10 \times 5 - 8 = 42$ (H) · $9 \times 8 - 7 = 65$ (W) · $3 + 5 \times 5 = 28$ (D)

Clue 4 (Multiplication facts (1-12)): "WE FOUND CURLY BROWN HAIR ON THE LOCK"

$5 \times 4 = 20$ (W) · $10 \times 10 = 100$ (Y) · $11 \times 12 = 132$ (F) · $1 \times 1 = 1$ (R) · $10 \times 7 = 70$ (C) · $9 \times 10 = 90$ (B) · $2 \times 2 = 4$ (T) · $5 \times 1 = 5$ (D) · $1 \times 12 = 12$ (H) · $10 \times 11 = 110$ (K) · $12 \times 8 = 96$ (O) · $8 \times 4 = 32$ (A) · $6 \times 9 = 54$ (U) · $5 \times 2 = 10$ (N) · $5 \times 9 = 45$ (L) · $12 \times 10 = 120$ (I) · $1 \times 11 = 11$ (E)

Clue 5 (Division facts (1-12)): surviving statement is box 10 → Carter

$88 \div 11 = 8$ · $36 \div 6 = 6$ · $12 \div 1 = 12$ · $60 \div 12 = 5$ · $18 \div 9 = 2$ · $14 \div 2 = 7$ · $12 \div 12 = 1$ · $11 \div 1 = 11$ · $20 \div 5 = 4$ · $18 \div 2 = 9$ · $36 \div 12 = 3$