



The Lost Idol of Sunstone Valley

Grade 6 math · Place value, Multiplication, Rounding, Multi-step word problems, Division · Reading level grades 5-6

Detective: _____ **Date:** _____

During a midnight storm at Sunstone Valley, an ancient golden idol vanished from the main tent! Detective Sam arrived at daybreak to analyze trail evidence, decode encoded notes, and identify the thief among the twenty-four expedition members.

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 Rival Explorer is _____

Possible suspects

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

NAME	SPECIALTY EQUIPMENT	SECONDARY GADGET	DOMINANT HAND	HAIRSTYLE	VULNERABILITY
Soren Lind	Decryption Tablet	Glider Wings	Right Handed	Braided Hair	Loud Sound
Hugo Mercer	Grappling Hook	Smoke Bomb	Left Handed	Curly Hair	Loud Sound
Ulysses Vance	Grappling Hook	Magnetic Compass	Right Handed	Spiky Hair	Bright Light
Brody Vance	Sonic Whistle	Zipline Cable	Right Handed	Curly Hair	Loud Sound
Wyatt Hayes	Decryption Tablet	Signal Flare	Left Handed	Braided Hair	Loud Sound
Gemma Cross	Sonic Whistle	Magnetic Compass	Left Handed	Spiky Hair	Loud Sound
Nico Silva	Thermal Goggles	Signal Flare	Left Handed	Curly Hair	Loud Sound
Maya Lin	Thermal Goggles	Magnetic Compass	Right Handed	Braided Hair	Bright Light
Zoe Castellan	Thermal Goggles	Zipline Cable	Left Handed	Curly Hair	Freezing Air
Leo Sterling	Sonic Whistle	Glider Wings	Right Handed	Braided Hair	Loud Sound
Diego Reyes	Thermal Goggles	Magnetic Compass	Left Handed	Curly Hair	Bright Light
Talia Alva	Climbing Claws	Smoke Bomb	Left Handed	Spiky Hair	Loud Sound
Elena Rostova	Decryption Tablet	Magnetic Compass	Left Handed	Curly Hair	Loud Sound
Iris Thorne	Climbing Claws	Signal Flare	Right Handed	Spiky Hair	Loud Sound
Paolo Rossi	Thermal Goggles	Glider Wings	Left Handed	Curly Hair	Loud Sound
Amelia Stone	Decryption Tablet	Magnetic Compass	Right Handed	Spiky Hair	Loud Sound
Valerie Frost	Climbing Claws	Smoke Bomb	Right Handed	Braided Hair	Loud Sound
Quinn Harper	Climbing Claws	Glider Wings	Left Handed	Curly Hair	Bright Light
Rhea Patel	Thermal Goggles	Signal Flare	Right Handed	Spiky Hair	Bright Light
Olivia Wilde	Grappling Hook	Signal Flare	Left Handed	Braided Hair	Freezing Air
Jasper Drake	Thermal Goggles	Magnetic Compass	Left Handed	Curly Hair	Loud Sound

CLUE 1

To unlock the emergency supply vault, Detective Sam must analyze the digit values on the digital keypad lock.

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

80 500 800 30 6000 30 50 800 7000 80 90 600 800 30 5000 600 80

6000 30 800 30 60 600 100 800 400 600 60 400 30

What is the value of the 8 in 109,684? → **T**

What is the value of the 5 in 384,757? → **P**

What is the value of the 8 in 11,831? → **E**

What is the value of the 6 in 46,871? → **U**

What is the value of the 3 in 957,239? → **S**

What is the value of the 9 in 45,198? → **D**

What is the value of the 6 in 37,168? → **M**

What is the value of the 7 in 637,189? → **C**

What is the value of the 6 in 433,617? → ☐

What is the value of the 1 in 72,100? → **K**

What is the value of the 4 in 98,490? → **B**

What is the value of the 5 in 825,613? → **N**

What is the value of the 5 in 298,576? → **H**

Scratch space:

CLUE 2

Multiplication facts (1-12)

Sam counts rows of supply crates packed tightly inside the stolen gear tent to verify inventory.

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

T					T											T	
21	55	14	80	2	21	108	14	90	90	90	144	80	144	50	14	44	21

						T				
55	144	108	10	14	10	21	55	2	14	44

$7 \times 3 = \square \rightarrow \boxed{\text{T}}$

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

$10 \times 9 = \square \rightarrow \boxed{\text{S}}$

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

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

$10 \times 8 = \square \rightarrow \boxed{\text{W}}$

$12 \times 9 = \square \rightarrow \boxed{\text{N}}$

$2 \times 1 = \square \rightarrow \boxed{\text{I}}$

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

$12 \times 12 = \square \rightarrow \boxed{\text{A}}$

$4 \times 11 = \square \rightarrow \boxed{\text{F}}$

Scratch space:

CLUE 3

Rounding

The scout radar system only displays estimated distance readings rounded to the nearest thousand.

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

T																	
5000	2900	370	2000	3700	1100	1100	2300	3700	30	3700	700	290	9000	3700	1100	370	3000

130	70	1100	9000	300	3000	700	9000	300	30	3000

Round 5,455 to the nearest thousand → **T**

Round 3,153 to the nearest thousand → **D**

Round 369 to the nearest ten → **E**

Round 675 to the nearest hundred → **S**

Round 127 to the nearest ten → **B**

Round 2,891 to the nearest hundred → **H**

Round 294 to the nearest ten → **F**

Round 28 to the nearest ten → **N**

Round 8,773 to the nearest thousand → **O**

Round 72 to the nearest ten → **Y**

Round 1,056 to the nearest hundred → **L**

Round 1,691 to the nearest thousand → **V**

Round 330 to the nearest hundred → **U**

Round 2,308 to the nearest hundred → **A**

Round 3,714 to the nearest hundred → **I**

Scratch space:

CLUE 4

Multi-step word problems

Sam calculates gear weight limits and transport costs through a series of expedition records.

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

A strand of

C							I	
85	70	84	57	75	77	67		84

 hair turned up at the scene.

There were 859 climbing ropes in all. 9 climbing ropes were set aside. The rest were shared equally among 10 expedition team. How many climbing ropes did each get?

Answer: → **C**

There were 316 gold coins in all. 1 expedition team used 16 gold coins each. The other 4 expedition team shared the rest equally. How many gold coins did each of the other expedition team get?

Answer: → **Y**

There were 249 gold coins in all. 3 expedition team used 7 gold coins each. The other 4 expedition team shared the rest equally. How many gold coins did each of the other expedition team get?

Answer: → **L**

Explorer earned 7 bronze statues in each of 5 rounds, plus 54 bonus bronze statues. Then 12 bronze statues were lost. How many bronze statues are left?

Answer: → **H**

Explorer earned 7 gold coins in each of 6 rounds, plus 34 bonus gold coins. Then 9 gold coins were lost. How many gold coins are left?

Answer: → **A**

Explorer collected 9 ruby gems in the morning and 159 ruby gems in the afternoon, then split them equally among 2 expedition team. How many ruby gems did each get?

Answer: → **R**

There were 701 ruby gems in all. 1 ruby gems were set aside. The rest were shared equally among 10 expedition team. How many ruby gems did each get?

Answer: → **U**

Scratch space:

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

To organize search patrols evenly, total search grid miles must be split among rescue teams.

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:

$12 \div 6 = \boxed{}$

$28 \div 7 = \boxed{}$

$99 \div 9 = \boxed{}$

$64 \div 8 = \boxed{}$

$5 \div 1 = \boxed{}$

$108 \div 12 = \boxed{}$

$110 \div 11 = \boxed{}$

$6 \div 1 = \boxed{}$

$72 \div 6 = \boxed{}$

$84 \div 12 = \boxed{}$

$2 \div 2 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain uses climbing claws to scale cliffs, then attaches a zipline cable.
2. The villain scans terrain with thermal goggles, then unfurls glider wings.
3. The villain decodes locks with a decryption tablet, then consults a magnetic compass.
4. The villain scans terrain with thermal goggles, then consults a magnetic compass.
5. The villain uses a sonic whistle to signal allies, then unfurls glider wings.
6. The villain scans terrain with thermal goggles, then deploys a smoke bomb.
7. The villain uses climbing claws to scale cliffs, then ignites a signal flare.
8. The villain uses climbing claws to scale cliffs, then deploys a smoke bomb.
9. The villain scans terrain with thermal goggles, then attaches a zipline cable.
10. The villain uses a sonic whistle to signal allies, then ignites a signal flare.
11. The villain scans terrain with thermal goggles, then ignites a signal flare.
12. The villain uses a sonic whistle to signal allies, then attaches a zipline cable.

Answer Key

The Lost Idol of Sunstone Valley

Culprit: Elena Rostova

Decryption Tablet · Magnetic Compass · Left Handed · Curly Hair · Loud Sound

Trail: Start 21 → Clue 1 18 → Clue 2 10 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE SUSPECT DOES NOT USE SMOKE BOMBS"

What is the value of the 8 in 109,684? = 80 (T) · What is the value of the 5 in 384,757? = 50 (P) · What is the value of the 8 in 11,831? = 800 (E) · What is the value of the 6 in 46,871? = 6000 (U) · What is the value of the 3 in 957,239? = 30 (S) · What is the value of the 9 in 45,198? = 90 (D) · What is the value of the 6 in 37,168? = 60 (M) · What is the value of the 7 in 637,189? = 7000 (C) · What is the value of the 6 in 433,617? = 600 (O) · What is the value of the 1 in 72,100? = 100 (K) · What is the value of the 4 in 98,490? = 400 (B) · What is the value of the 5 in 825,613? = 5000 (N) · What is the value of the 5 in 298,576? = 500 (H)

Clue 2 (Multiplication facts (1-12)): "THE WITNESS SAW A LEFT HANDED THIEF"

$7 \times 3 = 21$ (T) · $2 \times 7 = 14$ (E) · $10 \times 9 = 90$ (S) · $5 \times 2 = 10$ (D) · $10 \times 5 = 50$ (L) · $10 \times 8 = 80$ (W) · $12 \times 9 = 108$ (N) · $2 \times 1 = 2$ (I) · $5 \times 11 = 55$ (H) · $12 \times 12 = 144$ (A) · $4 \times 11 = 44$ (F)

Clue 3 (Rounding): "THE VILLAIN IS FOILED BY LOUD SOUND"

Round 5,455 to the nearest thousand = 5000 (T) · Round 3,153 to the nearest thousand = 3000 (D) · Round 369 to the nearest ten = 370 (E) · Round 675 to the nearest hundred = 700 (S) · Round 127 to the nearest ten = 130 (B) · Round 2,891 to the nearest hundred = 2900 (H) · Round 294 to the nearest ten = 290 (F) · Round 28 to the nearest ten = 30 (N) · Round 8,773 to the nearest thousand = 9000 (O) · Round 72 to the nearest ten = 70 (Y) · Round 1,056 to the nearest hundred = 1100 (L) · Round 1,691 to the nearest thousand = 2000 (V) · Round 330 to the nearest hundred = 300 (U) · Round 2,308 to the nearest hundred = 2300 (A) · Round 3,714 to the nearest hundred = 3700 (I)

Clue 4 (Multi-step word problems): "CURLY HAIR"

There were 859 climbing ropes in all. 9 climbing ropes were set aside. The rest were shared equally among 10 expedition team. How many climbing ropes did each get? = 85 (C) · There were 316 gold coins in all. 1 expedition team used 16 gold coins each. The other 4 expedition team shared the rest equally. How many gold coins did each of the other expedition team get? = 75 (Y) · There were 249 gold coins in all. 3 expedition team used 7 gold coins each. The other 4 expedition team shared the rest equally. How many gold coins did each of the other expedition team get? = 57 (L) · Explorer earned 7 bronze statues in each of 5 rounds, plus 54 bonus bronze statues. Then 12 bronze statues were lost. How many bronze statues are left? = 77 (H) · Explorer earned 7 gold coins in each of 6 rounds, plus 34 bonus gold coins. Then 9 gold coins were lost. How many gold coins are left? = 67 (A) · Explorer collected 9 ruby gems in the morning and 159 ruby gems in the afternoon, then split them equally among 2 expedition team. How many ruby gems did each get? = 84 (R) · There were 701 ruby gems in all. 1 ruby gems were set aside. The rest were shared equally among 10 expedition team. How many ruby gems did each get? = 70 (U)

Clue 5 (Division facts (1-12)): surviving statement is box 3 → Elena Rostova

$12 \div 6 = 2$ · $28 \div 7 = 4$ · $99 \div 9 = 11$ · $64 \div 8 = 8$ · $5 \div 1 = 5$ · $108 \div 12 = 9$ · $110 \div 11 = 10$ · $6 \div 1 = 6$ · $72 \div 6 = 12$ · $84 \div 12 = 7$ · $2 \div 2 = 1$