The Mystery of the Sun Temple Relic

Grade 7 math · Rounding, Multi-step word problems, Word problems, Integers, Missing addends · Reading level grades 7-9

Detective: _____ **Date:** _____

The ancient Sun Crystal was stolen from the central vault of Xylos Jungle Camp! Detective, analyze the clues left behind by the rogue explorers to unmask the culprit.

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 Shadow Explorer is _____

Possible suspects

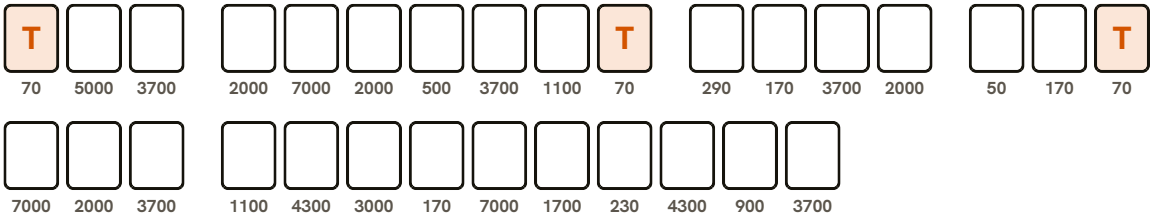
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	PRIMARY TOOL	SPECIAL ABILITY	DOMINANT HAND	BANDANA COLOR	VULNERABILITY
Elena Fisher	Smoke Bomb	Wall Climbing	Left Handed	Crimson Bandana	Poison Ivy
Sydney Fox	Laser Cutter	Silent Treading	Right Handed	Crimson Bandana	Bright Flashlights
Rick O Connell	Grappling Hook	Silent Treading	Left Handed	Emerald Bandana	Loud Whistles
Henry Jones	Laser Cutter	Night Vision	Left Handed	Cobalt Bandana	Loud Whistles
Samuel Drake	Smoke Bomb	Wall Climbing	Right Handed	Emerald Bandana	Loud Whistles
Ellie Sattler	Grappling Hook	Camouflage	Left Handed	Emerald Bandana	Loud Whistles
Claire Redfield	Laser Cutter	Speed Running	Left Handed	Crimson Bandana	Bright Flashlights
Amelia Rivers	Smoke Bomb	Wall Climbing	Left Handed	Cobalt Bandana	Loud Whistles
Maya Lin	Decoder Ring	Silent Treading	Left Handed	Crimson Bandana	Poison Ivy
Owen Grady	Grappling Hook	Camouflage	Right Handed	Crimson Bandana	Bright Flashlights
Alan Grant	Laser Cutter	Camouflage	Right Handed	Emerald Bandana	Loud Whistles
Evelyn Carnahan	Smoke Bomb	Silent Treading	Left Handed	Emerald Bandana	Loud Whistles
Leo Valdez	Smoke Bomb	Speed Running	Left Handed	Emerald Bandana	Loud Whistles
Marcus Brody	Machete	Silent Treading	Right Handed	Emerald Bandana	Loud Whistles
Chloe Stone	Smoke Bomb	Speed Running	Left Handed	Crimson Bandana	Poison Ivy
Jack Wilder	Decoder Ring	Silent Treading	Left Handed	Emerald Bandana	Poison Ivy
Indy Drake	Laser Cutter	Wall Climbing	Right Handed	Cobalt Bandana	Poison Ivy
Carter Kane	Decoder Ring	Wall Climbing	Left Handed	Emerald Bandana	Loud Whistles
Flynn Carson	Laser Cutter	Camouflage	Right Handed	Crimson Bandana	Loud Whistles
Nathan Vance	Grappling Hook	Speed Running	Left Handed	Cobalt Bandana	Bright Flashlights
Lara Croft	Machete	Silent Treading	Right Handed	Crimson Bandana	Poison Ivy

CLUE 1 Rounding

To figure out how far the thief fled, calculate the supplies taken from camp across multiple supply crates.

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



Round 67 to the nearest ten ☐ → T

Round 3,696 to the nearest hundred ☐ → E

Round 4,725 to the nearest thousand ☐ → H

Round 1,104 to the nearest hundred ☐ → C

Round 51 to the nearest ten ☐ → N

Round 2,002 to the nearest thousand ☐ → S

Round 2,893 to the nearest thousand ☐ → M

Round 484 to the nearest hundred ☐ → P

Round 917 to the nearest hundred ☐ → G

Round 234 to the nearest ten ☐ → L

Round 6,609 to the nearest thousand ☐ → U

Round 4,285 to the nearest hundred ☐ → A

Round 1,723 to the nearest hundred ☐ → F

Round 174 to the nearest ten ☐ → O

Round 293 to the nearest ten ☐ → D

Scratch space:

CLUE 2 Multi-step word problems

> The camp radar tracked movements, but the display panel rounds all distance readings to the nearest hundred meters.

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

A witness saw the villain was

L							D		D
49	25	90	19	12	61	23		25	

.

Ranger filled 8 boxes with 2 rope coils each, then found 33 more rope coils. How many rope coils are there in all?

Answer: ☐ → **L**

There were 331 golden idols in all. 26 golden idols were set aside. The rest were shared equally among 5 expedition team. How many golden idols did each get?

Answer: ☐ → **A**

Ranger earned 2 compasses in each of 6 rounds, plus 17 bonus compasses. Then 4 compasses were lost. How many compasses are left?

Answer: ☐ → **E**

There were 542 torch batteries in all. 2 torch batteries were set aside. The rest were shared equally among 6 expedition team. How many torch batteries did each get?

Answer: ☐ → **F**

Ranger collected 27 compasses in the morning and 19 compasses in the afternoon, then split them equally among 2 expedition team. How many compasses did each get?

Answer: ☐ → **N**

There were 78 trail maps in all. 2 expedition team used 9 trail maps each. The other 5 expedition team shared the rest equally. How many trail maps did each of the other expedition team get?

Answer: ☐ → **H**

Ranger collected 26 golden idols in the morning and 12 golden idols in the afternoon, then split them equally among 2 expedition team. How many golden idols did each get?

Answer: ☐ → **T**

Scratch space:

CLUE 3 Word problems

Examining the trail requires figuring out how many trail markers the thief left per mile.

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

Someone scared the villain off with

L							S	T	L	E	S
69	18	39	44	87	86	120			69		

.

Ranger found 41 compasses yesterday and 28 more today. How many compasses in all?

Answer: ☐ → **L**

There were 121 trail maps. 35 were used up. How many trail maps are left?

Answer: ☐ → **H**

There were 120 compasses. 33 were used up. How many compasses are left?

Answer: ☐ → **W**

Ranger found 27 compasses yesterday and 12 more today. How many compasses in all?

Answer: ☐ → **U**

Ranger lined up 3 rows of 6 torch batteries. How many torch batteries in all?

Answer: ☐ → **O**

Ranger found 43 rope coils yesterday and 77 more today. How many rope coils in all?

Answer: ☐ → **I**

Ranger lined up 4 rows of 11 compasses. How many compasses in all?

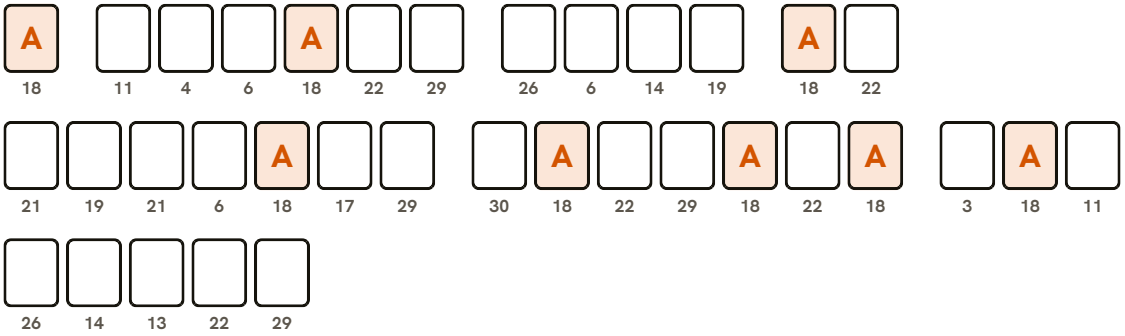
Answer: ☐ → **D**

Scratch space:

CLUE 4 Integers

> The temple depth gauge records changes in elevation above and below sea level as signed integer values.

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



(-11) + 29 = ☐ → A

(-2) + 15 = ☐ → U

14 - (-12) = ☐ → F

(-8) + 14 = ☐ → R

(-14) + 28 = ☐ → O

(-11) + 14 = ☐ → W

23 - (-7) = ☐ → B

(-7) + 36 = ☐ → D

4 - (-15) = ☐ → M

(-1) + 5 = ☐ → T

18 - (-3) = ☐ → E

(-2) + 24 = ☐ → N

(-5) + 22 = ☐ → L

(-4) + 15 = ☐ → S

Scratch space:

CLUE 5 Missing addends - the last clue

> The security gate code panel requires finding the missing energy values to unlock the final log.

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:

25 + ___ = 30 ☐	8 + ___ = 17 ☐	10 + ___ = 13 ☐	2 + ___ = 6 ☐
17 + ___ = 28 ☐	34 + ___ = 42 ☐	23 + ___ = 25 ☐	1 + ___ = 7 ☐
14 + ___ = 26 ☐	27 + ___ = 34 ☐	34 + ___ = 44 ☐	

Step 2 - cross out the sentence with each answer:

1. The villain unlocked the ancient cipher using a decoder ring, then scaled the steep stone ruins.
2. The villain cleared a path through dense vines with a machete, then scaled the steep stone ruins.
3. The villain swung across the chasm with a grappling hook, then snuck past the sleeping guard dogs.
4. The villain swung across the chasm with a grappling hook, then blended into the jungle foliage.
5. The villain vanished into a cloud of smoke bombs, then sprinted past the temple dart traps.
6. The villain sliced through the vault bar with a laser cutter, then snuck past the sleeping guard dogs.
7. The villain cleared a path through dense vines with a machete, then blended into the jungle foliage.
8. The villain swung across the chasm with a grappling hook, then navigated through the pitch black tunnels.
9. The villain vanished into a cloud of smoke bombs, then snuck past the sleeping guard dogs.
10. The villain unlocked the ancient cipher using a decoder ring, then navigated through the pitch black tunnels.
11. The villain sliced through the vault bar with a laser cutter, then scaled the steep stone ruins.
12. The villain unlocked the ancient cipher using a decoder ring, then blended into the jungle foliage.

TEACHER / PARENT

Answer Key

The Mystery of the Sun Temple Relic

Culprit: Carter Kane

Decoder Ring · Wall Climbing · Left Handed · Emerald Bandana · Loud Whistles

Trail: Start 21 → Clue 1 17 → Clue 2 12 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE SUSPECT DOES NOT USE CAMOUFLAGE"

Round 67 to the nearest ten = 70 (T) · Round 3,696 to the nearest hundred = 3700 (E) · Round 4,725 to the nearest thousand = 5000 (H) · Round 1,104 to the nearest hundred = 1100 (C) · Round 51 to the nearest ten = 50 (N) · Round 2,002 to the nearest thousand = 2000 (S) · Round 2,893 to the nearest thousand = 3000 (M) · Round 484 to the nearest hundred = 500 (P) · Round 917 to the nearest hundred = 900 (G) · Round 234 to the nearest ten = 230 (L) · Round 6,609 to the nearest thousand = 7000 (U) · Round 4,285 to the nearest hundred = 4300 (A) · Round 1,723 to the nearest hundred = 1700 (F) · Round 174 to the nearest ten = 170 (O) · Round 293 to the nearest ten = 290 (D)

Clue 2 (Multi-step word problems): "LEFT HANDED"

Ranger filled 8 boxes with 2 rope coils each, then found 33 more rope coils. How many rope coils are there in all? = 49 (L) · There were 331 golden idols in all. 26 golden idols were set aside. The rest were shared equally among 5 expedition team. How many golden idols did each get? = 61 (A) · Ranger earned 2 compasses in each of 6 rounds, plus 17 bonus compasses. Then 4 compasses were lost. How many compasses are left? = 25 (E) · There were 542 torch batteries in all. 2 torch batteries were set aside. The rest were shared equally among 6 expedition team. How many torch batteries did each get? = 90 (F) · Ranger collected 27 compasses in the morning and 19 compasses in the afternoon, then split them equally among 2 expedition team. How many compasses did each get? = 23 (N) · There were 78 trail maps in all. 2 expedition team used 9 trail maps each. The other 5 expedition team shared the rest equally. How many trail maps did each of the other expedition team get? = 12 (H) · Ranger collected 26 golden idols in the morning and 12 golden idols in the afternoon, then split them equally among 2 expedition team. How many golden idols did each get? = 19 (T)

Clue 3 (Word problems): "LOUD WHISTLES"

Ranger found 41 compasses yesterday and 28 more today. How many compasses in all? = 69 (L) · There were 121 trail maps. 35 were used up. How many trail maps are left? = 86 (H) · There were 120 compasses. 33 were used up. How many compasses are left? = 87 (W) · Ranger found 27 compasses yesterday and 12 more today. How many compasses in all? = 39 (U) · Ranger lined up 3 rows of 6 torch batteries. How many torch batteries in all? = 18 (O) · Ranger found 43 rope coils yesterday and 77 more today. How many rope coils in all? = 120 (I) · Ranger lined up 4 rows of 11 compasses. How many compasses in all? = 44 (D)

Clue 4 (Integers): "A STRAND FROM AN EMERALD BANDANA WAS FOUND"

(-11) + 29 = 18 (A) · (-2) + 15 = 13 (U) · 14 - (-12) = 26 (F) · (-8) + 14 = 6 (R) · (-14) + 28 = 14 (O) · (-11) + 14 = 3 (W) · 23 - (-7) = 30 (B) · (-7) + 36 = 29 (D) · 4 - (-15) = 19 (M) · (-1) + 5 = 4 (T) · 18 - (-3) = 21 (E) · (-2) + 24 = 22 (N) · (-5) + 22 = 17 (L) · (-4) + 15 = 11 (S)

Clue 5 (Missing addends): surviving statement is box 1 → Carter Kane

25 + ___ = 30 = 5 · 8 + ___ = 17 = 9 · 10 + ___ = 13 = 3 · 2 + ___ = 6 = 4 · 17 + ___ = 28 = 11 · 34 + ___ = 42 = 8 · 23 + ___ = 25 = 2 · 1 + ___ = 7 = 6 · 14 + ___ = 26 = 12 · 27 + ___ = 34 = 7 · 34 + ___ = 44 = 10