



The Mystery of the Sunken Temple

Grade 8 math · Fractions of a number, Word problems, Multiplication, Subtraction · Reading level grades 7-9

Detective: _____ Date: _____

Someone broke into the Sunken Temple vault and snatched the Ancient Golden Trident! Use your detective skills and solve the math clues to reveal the guilty explorer.

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 Temple Raider is _____

Possible suspects

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

NAME	DIVE GEAR	SPECIAL TOOL	DOMINANT HAND	HEADGEAR	VULNERABILITY
Nina Reed	Grappling Hook	Magma Glove	Right Handed	Bright Orange Cap	Loud Whistle
Elena Cruz	Sonic Scanner	Deep Radar	Left Handed	Neon Green Helmet	High Magnet
Hugo Thorne	Plasma Torch	Triton Whistle	Left Handed	Neon Green Helmet	High Magnet
Oscar Wilde	Power Diver Suit	Crystal Compass	Right Handed	Neon Green Helmet	Loud Whistle
Felix Park	Grappling Hook	Neon Flares	Left Handed	Neon Green Helmet	Bright Flashlight
Devon Frost	Power Diver Suit	Triton Whistle	Right Handed	Bright Orange Cap	High Magnet
Samira Khan	Sonic Scanner	Deep Radar	Right Handed	Neon Green Helmet	High Magnet
Zack Sterling	Plasma Torch	Deep Radar	Left Handed	Neon Green Helmet	High Magnet
Rory Glen	Grappling Hook	Triton Whistle	Right Handed	Silver Diving Hood	Loud Whistle
Kai Vance	Power Diver Suit	Triton Whistle	Left Handed	Bright Orange Cap	Loud Whistle
Ivy West	Sonic Scanner	Magma Glove	Right Handed	Silver Diving Hood	High Magnet
Owen Drake	Grappling Hook	Deep Radar	Left Handed	Neon Green Helmet	Loud Whistle
Nadia Ray	Plasma Torch	Deep Radar	Left Handed	Bright Orange Cap	High Magnet
Maya Lin	Grappling Hook	Crystal Compass	Right Handed	Bright Orange Cap	High Magnet
Quinn Vance	Power Diver Suit	Crystal Compass	Left Handed	Bright Orange Cap	Bright Flashlight
Lucas Marsh	Grappling Hook	Deep Radar	Right Handed	Silver Diving Hood	Bright Flashlight
Kira Bell	Plasma Torch	Magma Glove	Left Handed	Neon Green Helmet	High Magnet
Gemma Rivers	Sonic Scanner	Crystal Compass	Left Handed	Neon Green Helmet	High Magnet
Jasper Cole	Sonic Scanner	Neon Flares	Left Handed	Neon Green Helmet	Loud Whistle
Leo Hayes	Power Diver Suit	Magma Glove	Right Handed	Bright Orange Cap	Bright Flashlight
Tara Blake	Grappling Hook	Crystal Compass	Left Handed	Neon Green Helmet	Loud Whistle

CLUE 1
Fractions of a number

We retrieved an encrypted field log from the dive computer containing several supply logs to decipher.

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

T																		
54	57	19	8	9	19	53	36	55	25	53	30	52	19	25	52	14	19	8
		T																
9	14	54	7	8	19	53	56	53	35	56	53	35	23	14	33	19		

$1/2 \text{ of } 108 = \boxed{} \rightarrow \boxed{\text{T}}$

$1/3 \text{ of } 27 = \boxed{} \rightarrow \boxed{\text{N}}$

$1/4 \text{ of } 100 = \boxed{} \rightarrow \boxed{\text{R}}$

$4/8 \text{ of } 14 = \boxed{} \rightarrow \boxed{\text{U}}$

$3/6 \text{ of } 70 = \boxed{} \rightarrow \boxed{\text{G}}$

$1/3 \text{ of } 168 = \boxed{} \rightarrow \boxed{\text{M}}$

$2/8 \text{ of } 144 = \boxed{} \rightarrow \boxed{\text{K}}$

$2/10 \text{ of } 95 = \boxed{} \rightarrow \boxed{\text{E}}$

$3/5 \text{ of } 55 = \boxed{} \rightarrow \boxed{\text{V}}$

$2/8 \text{ of } 92 = \boxed{} \rightarrow \boxed{\text{L}}$

$6/8 \text{ of } 40 = \boxed{} \rightarrow \boxed{\text{I}}$

$2/4 \text{ of } 106 = \boxed{} \rightarrow \boxed{\text{A}}$

$2/5 \text{ of } 20 = \boxed{} \rightarrow \boxed{\text{S}}$

$4/8 \text{ of } 110 = \boxed{} \rightarrow \boxed{\text{Y}}$

$2/6 \text{ of } 42 = \boxed{} \rightarrow \boxed{\text{O}}$

$3/5 \text{ of } 95 = \boxed{} \rightarrow \boxed{\text{H}}$

$2/3 \text{ of } 78 = \boxed{} \rightarrow \boxed{\text{D}}$

Scratch space:

CLUE 2

Word problems

The sonar map divides the sunken ruins into sectors showing only a fraction of the clear paths.

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
104	17	9	108	58	112	24		17	

There were 141 oxygen tanks. 37 were used up. How many oxygen tanks are left?

Answer: → **L**

Dive Master lined up 12 rows of 2 sea anchors. How many sea anchors in all?

Answer: → **N**

There were 21 oxygen tanks. 12 were used up. How many oxygen tanks are left?

Answer: → **F**

Dive Master found 11 waterproof tablets yesterday and 6 more today. How many waterproof tablets in all?

Answer: → **E**

Dive Master found 74 sea anchors yesterday and 34 more today. How many sea anchors in all?

Answer: → **T**

Dive Master found 68 waterproof tablets yesterday and 44 more today. How many waterproof tablets in all?

Answer: → **A**

There were 71 dive lights. 13 were used up. How many dive lights are left?

Answer: → **H**

Scratch space:

Multiplication facts (1-12)

We found organized rows of supply crates left in the staging area that reveal gear counts.

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

21 64 48 60 120 48 6 96 3 60 12 60 66 48 54 21 2 48 132 132

A number line from 0 to 100 with increments of 6. The numbers are: 0, 6, 12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72, 78, 84, 90, 96, 100. The number 21 is highlighted in orange and labeled with a 'T'.

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

$12 \times 11 = \square \rightarrow \boxed{\text{L}}$

$$4 \times 3 = \boxed{} \rightarrow \boxed{\text{U}}$$
 $6 \times 8 = \boxed{} \rightarrow \boxed{\text{E}}$ $8 \times 12 = \boxed{} \rightarrow \boxed{\text{K}}$ $12 \times 10 = \boxed{} \rightarrow \boxed{\text{N}}$ $1 \times 2 = \boxed{} \rightarrow \boxed{\text{F}}$

$2 \times 3 = \square \rightarrow \boxed{\mathbf{A}}$

$8 \times 8 = \boxed{} \rightarrow \boxed{\text{H}}$

$1 \times 3 = \square \rightarrow \boxed{\text{Y}}$

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

$4 \times 7 = \square \rightarrow \boxed{\mathbf{G}}$

$9 \times 6 = \square \rightarrow \boxed{\text{C}}$

$5 \times 8 = \boxed{} \rightarrow \boxed{\text{I}}$

 $6 \times 10 = \boxed{} \rightarrow \boxed{\text{S}}$ $4 \times 11 = \boxed{} \rightarrow \boxed{\text{M}}$ $6 \times 11 = \boxed{} \rightarrow \boxed{\text{P}}$

Scratch space:

CLUE 4

Subtraction

Comparing the vault inventory before and after the breach reveals exact measurements.

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

P																			
6668	8880	1490	1091	1490	4717	6852	2655	3252	8391	1490	6852	8391	3065	7616	1490	1490	8391		
6875	1490	5830	6170	1490	1162	2266	1490	7616	1490	5830	1490	2655	1162	2433	1490	6875	8880	8391	6626

$9773 - 3105 = \square \rightarrow \text{P}$

$6800 - 4534 = \square \rightarrow \text{W}$

$5661 - 944 = \square \rightarrow \text{S}$

$3125 - 60 = \square \rightarrow \text{G}$

$5648 - 4158 = \square \rightarrow \text{E}$

$9412 - 3582 = \square \rightarrow \text{L}$

$11588 - 4962 = \square \rightarrow \text{D}$

$4789 - 1537 = \square \rightarrow \text{A}$

$5964 - 4873 = \square \rightarrow \text{C}$

$9462 - 1846 = \square \rightarrow \text{R}$

$9075 - 2223 = \square \rightarrow \text{O}$

$9579 - 3409 = \square \rightarrow \text{M}$

$5082 - 2427 = \square \rightarrow \text{F}$

$12391 - 3511 = \square \rightarrow \text{I}$

$6113 - 4951 = \square \rightarrow \text{T}$

$9507 - 1116 = \square \rightarrow \text{N}$

$6432 - 3999 = \square \rightarrow \text{B}$

$6895 - 20 = \square \rightarrow \text{H}$

Scratch space:

CLUE 5**Fractions of a number - the last clue**

Analyzing the power cell readings gives us the fraction of energy spent during the getaway.

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:

$1/2 \text{ of } 8 = \boxed{}$

$1/10 \text{ of } 20 = \boxed{}$

$1/8 \text{ of } 56 = \boxed{}$

$3/10 \text{ of } 20 = \boxed{}$

$1/8 \text{ of } 80 = \boxed{}$

$3/6 \text{ of } 6 = \boxed{}$

$1/8 \text{ of } 40 = \boxed{}$

$4/5 \text{ of } 10 = \boxed{}$

$1/10 \text{ of } 10 = \boxed{}$

$5/10 \text{ of } 18 = \boxed{}$

$4/8 \text{ of } 22 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain floated in using a power diver suit, then blew the triton whistle.
2. The villain lit up the plasma torch, then checked the deep radar.
3. The villain turned on the sonic scanner, then dropped neon flares.
4. The villain turned on the sonic scanner, then consulted the crystal compass.
5. The villain floated in using a power diver suit, then checked the deep radar.
6. The villain fired the grappling hook, then grabbed the magma glove.
7. The villain turned on the sonic scanner, then checked the deep radar.
8. The villain zipped away on an underwater scooter, then checked the deep radar.
9. The villain zipped away on an underwater scooter, then dropped neon flares.
10. The villain turned on the sonic scanner, then blew the triton whistle.
11. The villain zipped away on an underwater scooter, then grabbed the magma glove.
12. The villain lit up the plasma torch, then blew the triton whistle.

Answer Key

The Mystery of the Sunken Temple

Culprit: Hugo Thorne

Plasma Torch · Triton Whistle · Left Handed · Neon Green Helmet · High Magnet

Trail: Start 21 → Clue 1 17 → Clue 2 11 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Fractions of a number): "THE SNEAKY RAIDER DOES NOT USE A MAGMA GLOVE"

$\frac{1}{2}$ of 108 = 54 (T) · $\frac{1}{3}$ of 27 = 9 (N) · $\frac{1}{4}$ of 100 = 25 (R) · $\frac{4}{8}$ of 14 = 7 (U) · $\frac{3}{6}$ of 70 = 35 (G) · $\frac{1}{3}$ of 168 = 56 (M) · $\frac{2}{8}$ of 144 = 36 (K) · $\frac{2}{10}$ of 95 = 19 (E) · $\frac{3}{5}$ of 55 = 33 (V) · $\frac{2}{8}$ of 92 = 23 (L) · $\frac{6}{8}$ of 40 = 30 (I) · $\frac{2}{4}$ of 106 = 53 (A) · $\frac{2}{5}$ of 20 = 8 (S) · $\frac{4}{8}$ of 110 = 55 (Y) · $\frac{2}{6}$ of 42 = 14 (O) · $\frac{3}{5}$ of 95 = 57 (H) · $\frac{2}{3}$ of 78 = 52 (D)

Clue 2 (Word problems): "LEFT HANDED"

There were 141 oxygen tanks. 37 were used up. How many oxygen tanks are left? = 104 (L) · Dive Master lined up 12 rows of 2 sea anchors. How many sea anchors in all? = 24 (N) · There were 21 oxygen tanks. 12 were used up. How many oxygen tanks are left? = 9 (F) · Dive Master found 11 waterproof tablets yesterday and 6 more today. How many waterproof tablets in all? = 17 (E) · Dive Master found 74 sea anchors yesterday and 34 more today. How many sea anchors in all? = 108 (T) · Dive Master found 68 waterproof tablets yesterday and 44 more today. How many waterproof tablets in all? = 112 (A) · There were 71 dive lights. 13 were used up. How many dive lights are left? = 58 (H)

Clue 3 (Multiplication facts (1-12)): "THE SNEAKY SUSPECT FELL TO A HIGH MAGNET"

$7 \times 3 = 21$ (T) · $12 \times 11 = 132$ (L) · $4 \times 3 = 12$ (U) · $6 \times 8 = 48$ (E) · $8 \times 12 = 96$ (K) · $12 \times 10 = 120$ (N) · $1 \times 2 = 2$ (F) · $2 \times 3 = 6$ (A) · $8 \times 8 = 64$ (H) · $1 \times 3 = 3$ (Y) · $7 \times 7 = 49$ (O) · $4 \times 7 = 28$ (G) · $9 \times 6 = 54$ (C) · $5 \times 8 = 40$ (I) · $6 \times 10 = 60$ (S) · $4 \times 11 = 44$ (M) · $6 \times 11 = 66$ (P)

Clue 4 (Subtraction): "PIECES OF A NEON GREEN HELMET WERE LEFT BEHIND"

$9773 - 3105 = 6668$ (P) · $6800 - 4534 = 2266$ (W) · $5661 - 944 = 4717$ (S) · $3125 - 60 = 3065$ (G) · $5648 - 4158 = 1490$ (E) · $9412 - 3582 = 5830$ (L) · $11588 - 4962 = 6626$ (D) · $4789 - 1537 = 3252$ (A) · $5964 - 4873 = 1091$ (C) · $9462 - 1846 = 7616$ (R) · $9075 - 2223 = 6852$ (O) · $9579 - 3409 = 6170$ (M) · $5082 - 2427 = 2655$ (F) · $12391 - 3511 = 8880$ (I) · $6113 - 4951 = 1162$ (T) · $9507 - 1116 = 8391$ (N) · $6432 - 3999 = 2433$ (B) · $6895 - 20 = 6875$ (H)

Clue 5 (Fractions of a number): surviving statement is box 12 → Hugo Thorne

$\frac{1}{2}$ of 8 = 4 · $\frac{1}{10}$ of 20 = 2 · $\frac{1}{8}$ of 56 = 7 · $\frac{3}{10}$ of 20 = 6 · $\frac{1}{8}$ of 80 = 10 · $\frac{3}{6}$ of 6 = 3 · $\frac{1}{8}$ of 40 = 5 · $\frac{4}{5}$ of 10 = 8 · $\frac{1}{10}$ of 10 = 1 · $\frac{5}{10}$ of 18 = 9 · $\frac{4}{8}$ of 22 = 11