The Secret of the Golden Obelisk

Grade 3 math · Place value, Multiplication, Subtraction, Addition, Division · Reading level grades 3-4

Detective: _____ **Date:** _____

Someone broke into the Great Sun Pyramid and snatched the Golden Scarab Artifact! Dr. Aris needs your detective skills to analyze clues left in the tomb and find the suspect before they escape into the desert.

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 tomb raider is _____

Possible suspects

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

NAME	GEAR	TOMB TOOL	OBSERVATIONAL TELL	SCARF COLOR	TRAP WEAKNESS
Ramses Ray	Bronze Chisel	Copper Key	Left Handed	Gold Scarf	Water Spray
Indiana Drake	Torch Lantern	Sun Amulet	Left Handed	Gold Scarf	Loud Drums
Amelia Peabody	Sand Goggles	Copper Key	Right Handed	Blue Scarf	Water Spray
Nile Ned	Sand Goggles	Clay Tablet	Right Handed	Blue Scarf	Loud Drums
Zahi Hawass	Sand Goggles	Sun Amulet	Right Handed	Gold Scarf	Loud Drums
Granite Gabe	Bronze Chisel	Silver Whistle	Left Handed	Red Scarf	Water Spray
Basalt Ben	Torch Lantern	Sun Amulet	Left Handed	Blue Scarf	Loud Drums
Stone Sam	Linen Rope	Silver Whistle	Left Handed	Blue Scarf	Water Spray
Relic Rita	Torch Lantern	Silver Whistle	Left Handed	Gold Scarf	Cobweb Trait
Papyri Pam	Brass Compass	Sun Amulet	Right Handed	Red Scarf	Cobweb Trait
Professor Penny	Linen Rope	Moon Charm	Right Handed	Blue Scarf	Cobweb Trait
Sphinx Sarah	Linen Rope	Copper Key	Right Handed	Red Scarf	Water Spray
Camel Carl	Linen Rope	Clay Tablet	Left Handed	Blue Scarf	Water Spray
Sands Sammy	Bronze Chisel	Silver Whistle	Left Handed	Gold Scarf	Loud Drums
Giza Gina	Torch Lantern	Sun Amulet	Left Handed	Gold Scarf	Water Spray
Cleopatra Cole	Torch Lantern	Moon Charm	Right Handed	Gold Scarf	Water Spray
Oasis Olivia	Bronze Chisel	Moon Charm	Left Handed	Blue Scarf	Water Spray
Cobra Clara	Brass Compass	Copper Key	Left Handed	Blue Scarf	Water Spray
Howard Carter	Sand Goggles	Sun Amulet	Left Handed	Red Scarf	Loud Drums
Explorer Jack	Sand Goggles	Silver Whistle	Left Handed	Blue Scarf	Water Spray
Desert Daisy	Linen Rope	Copper Key	Left Handed	Gold Scarf	Loud Drums

make your own at mathcrackers.com

CLUE 1 Place value

Dr. Aris found a chamber code written on stone tablets where digits represented thousands and hundreds.

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

T																					
2000	40	900	600	90	200	200	9000	90	800	1000	400	900	7000	800	400	2000					
500	9000	100	100	50	9000	4000	400	400	800	500	40	9000	100	4000							

What is the value of the 2 in 52,165? ☐ → T

What is the value of the 5 in 956? ☐ → Y

What is the value of the 7 in 87,564? ☐ → S

What is the value of the 1 in 31,603? ☐ → D

What is the value of the 2 in 278? ☐ → L

What is the value of the 4 in 4,289? ☐ → M

What is the value of the 9 in 390? ☐ → I

What is the value of the 4 in 1,470? ☐ → O

What is the value of the 5 in 544? ☐ → C

What is the value of the 4 in 9,142? ☐ → H

What is the value of the 1 in 182? ☐ → R

What is the value of the 8 in 872? ☐ → N

What is the value of the 9 in 8,906? ☐ → E

What is the value of the 6 in 3,692? ☐ → V

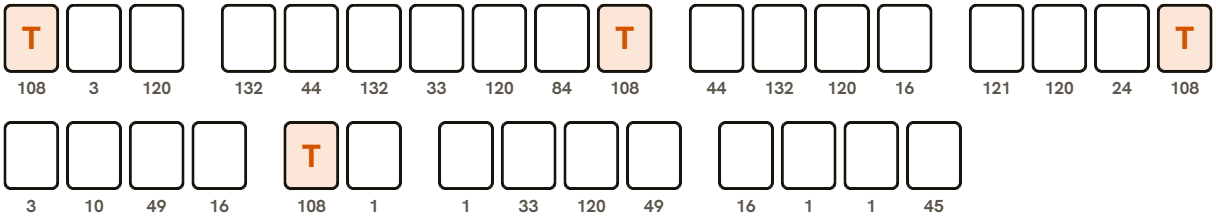
What is the value of the 9 in 9,804? ☐ → A

Scratch space:

CLUE 2 Multiplication facts (1-12)

> The expedition team unpacked equal rows of supply crates found along the pyramid hallway.

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



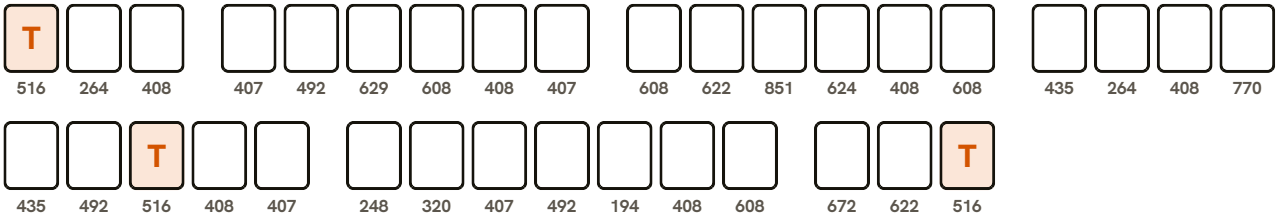
9 × 12 = ☐ → T	3 × 8 = ☐ → F	3 × 11 = ☐ → P
11 × 11 = ☐ → L	1 × 1 = ☐ → O	9 × 5 = ☐ → R
3 × 1 = ☐ → H	7 × 7 = ☐ → N	10 × 1 = ☐ → A
12 × 11 = ☐ → S	2 × 8 = ☐ → D	11 × 4 = ☐ → U
12 × 7 = ☐ → C	12 × 10 = ☐ → E	

Scratch space:

CLUE 3 Subtraction

> The detective checked how many water canteens remained after a long morning of digging.

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



518 - 2 = ☐ → **T**

990 - 368 = ☐ → **U**

866 - 242 = ☐ → **K**

898 - 47 = ☐ → **C**

885 - 277 = ☐ → **D**

640 - 392 = ☐ → **S**

803 - 311 = ☐ → **A**

806 - 398 = ☐ → **E**

510 - 316 = ☐ → **Y**

993 - 223 = ☐ → **N**

313 - 49 = ☐ → **H**

777 - 342 = ☐ → **W**

711 - 391 = ☐ → **P**

826 - 154 = ☐ → **O**

590 - 183 = ☐ → **R**

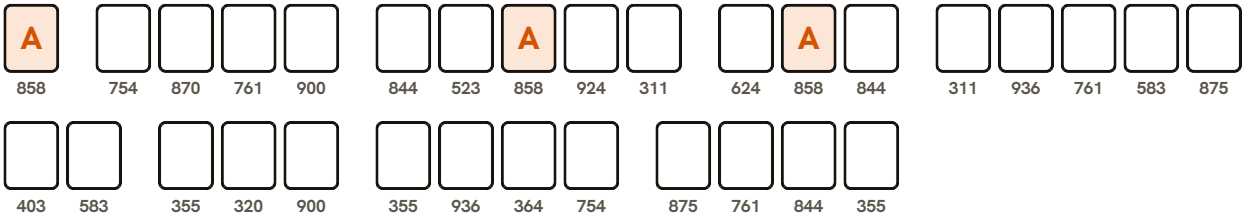
657 - 28 = ☐ → **I**

Scratch space:

CLUE 4 Addition

> The assistants combined total numbers of papyrus scrolls discovered across three different burial vaults.

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



305 + 553 = ☐ → A	231 + 124 = ☐ → T	456 + 468 = ☐ → R
364 + 536 = ☐ → E	359 + 164 = ☐ → C	583 + 353 = ☐ → O
532 + 338 = ☐ → L	138 + 226 = ☐ → M	305 + 278 = ☐ → N
406 + 438 = ☐ → S	400 + 354 = ☐ → B	121 + 282 = ☐ → I
129 + 182 = ☐ → F	467 + 408 = ☐ → D	449 + 312 = ☐ → U
213 + 411 = ☐ → W	214 + 106 = ☐ → H	

Scratch space:

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

> The camp leader shared total rations equally among all the excavation workers.

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:

36 ÷ 4 = ☐ | 12 ÷ 4 = ☐ | 80 ÷ 8 = ☐ | 6 ÷ 6 = ☐ | 10 ÷ 2 = ☐

32 ÷ 4 = ☐ | 20 ÷ 10 = ☐ | 18 ÷ 3 = ☐ | 33 ÷ 3 = ☐ | 132 ÷ 11 = ☐

70 ÷ 10 = ☐

Step 2 - cross out the sentence with each answer:

1. The villain chipped stone with a bronze chisel, then snatched the sun amulet.
2. The villain scaled the wall with linen rope, then grabbed the moon charm.
3. The villain checked a brass compass, then stole the copper key.
4. The villain scaled the wall with linen rope, then swiped the silver whistle.
5. The villain checked a brass compass, then grabbed the moon charm.
6. The villain chipped stone with a bronze chisel, then stole the copper key.
7. The villain shined a torch lantern, then snatched the sun amulet.
8. The villain checked a brass compass, then snatched the sun amulet.
9. The villain wiped dust off sand goggles, then swiped the silver whistle.
10. The villain scaled the wall with linen rope, then pocketed the clay tablet.
11. The villain chipped stone with a bronze chisel, then swiped the silver whistle.
12. The villain checked a brass compass, then pocketed the clay tablet.

TEACHER / PARENT

Answer Key

The Secret of the Golden Obelisk

Culprit: Stone Sam

Linen Rope · Silver Whistle · Left Handed · Blue Scarf · Water Spray

Trail: Start 21 → Clue 1 18 → Clue 2 13 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE VILLAIN DOES NOT CARRY A MOON CHARM"

What is the value of the 2 in 52,165? = 2000 (T) · What is the value of the 5 in 956? = 50 (Y) · What is the value of the 7 in 87,564? = 7000 (S) · What is the value of the 1 in 31,603? = 1000 (D) · What is the value of the 2 in 278? = 200 (L) · What is the value of the 4 in 4,289? = 4000 (M) · What is the value of the 9 in 390? = 90 (I) · What is the value of the 4 in 1,470? = 400 (O) · What is the value of the 5 in 544? = 500 (C) · What is the value of the 4 in 9,142? = 40 (H) · What is the value of the 1 in 182? = 100 (R) · What is the value of the 8 in 872? = 800 (N) · What is the value of the 9 in 8,906? = 900 (E) · What is the value of the 6 in 3,692? = 600 (V) · What is the value of the 9 in 9,804? = 9000 (A)

Clue 2 (Multiplication facts (1-12)): "THE SUSPECT USED LEFT HAND TO OPEN DOOR"

9 × 12 = 108 (T) · 3 × 8 = 24 (F) · 3 × 11 = 33 (P) · 11 × 11 = 121 (L) · 1 × 1 = 1 (O) · 9 × 5 = 45 (R) · 3 × 1 = 3 (H) · 7 × 7 = 49 (N) · 10 × 1 = 10 (A) · 12 × 11 = 132 (S) · 2 × 8 = 16 (D) · 11 × 4 = 44 (U) · 12 × 7 = 84 (C) · 12 × 10 = 120 (E)

Clue 3 (Subtraction): "THE RAIDER DUCKED WHEN WATER SPRAYED OUT"

518 - 2 = 516 (T) · 990 - 368 = 622 (U) · 866 - 242 = 624 (K) · 898 - 47 = 851 (C) · 885 - 277 = 608 (D) · 640 - 392 = 248 (S) · 803 - 311 = 492 (A) · 806 - 398 = 408 (E) · 510 - 316 = 194 (Y) · 993 - 223 = 770 (N) · 313 - 49 = 264 (H) · 777 - 342 = 435 (W) · 711 - 391 = 320 (P) · 826 - 154 = 672 (O) · 590 - 183 = 407 (R) · 657 - 28 = 629 (I)

Clue 4 (Addition): "A BLUE SCARF WAS FOUND IN THE TOMB DUST"

305 + 553 = 858 (A) · 231 + 124 = 355 (T) · 456 + 468 = 924 (R) · 364 + 536 = 900 (E) · 359 + 164 = 523 (C) · 583 + 353 = 936 (O) · 532 + 338 = 870 (L) · 138 + 226 = 364 (M) · 305 + 278 = 583 (N) · 406 + 438 = 844 (S) · 400 + 354 = 754 (B) · 121 + 282 = 403 (I) · 129 + 182 = 311 (F) · 467 + 408 = 875 (D) · 449 + 312 = 761 (U) · 213 + 411 = 624 (W) · 214 + 106 = 320 (H)

Clue 5 (Division facts (1-12)): surviving statement is box 4 → Stone Sam

36 ÷ 4 = 9 · 12 ÷ 4 = 3 · 80 ÷ 8 = 10 · 6 ÷ 6 = 1 · 10 ÷ 2 = 5 · 32 ÷ 4 = 8 · 20 ÷ 10 = 2 · 18 ÷ 3 = 6 · 33 ÷ 3 = 11 · 132 ÷ 11 = 12 · 70 ÷ 10 = 7