



The Golden Triton Heist

Grade 8 math · Multiplication, Rounding, Multi-step word problems, Exponents, Division · Reading level grades 7-9

Detective: _____ **Date:** _____

The Golden Triton, which lights up the entire Coral Cove Kingdom, has been stolen right out of the Royal Vault! The Royal Pearl Keeper is in a panic because the reef gates were locked, meaning the thief is still hiding somewhere inside our waters. You must track down the culprit before the entire kingdom plunges into permanent darkness.

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 Siren is _____

Possible suspects

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

NAME	PRIMARY MAGIC	SUB-AQUATIC GEAR	SWIMMING STYLE	TAIL SHADE	SENSORY WEAKNESS
Coral	kelp weaving	abalone shield	left fin lead	coral pink	high pitches
Marina	coral shaping	kelp net	left fin lead	coral pink	lemon juice
Ursula	current riding	abalone shield	right fin lead	pearl silver	lemon juice
Ariel	coral shaping	conch horn	right fin lead	pearl silver	lemon juice
Madison	shell singing	sea urchin mace	left fin lead	coral pink	bright light
Shelly	tide control	kelp net	left fin lead	kelp green	lemon juice
Thallasa	tide control	kelp net	right fin lead	pearl silver	lemon juice
Nerida	kelp weaving	conch horn	left fin lead	coral pink	lemon juice
Sirena	coral shaping	kelp net	left fin lead	coral pink	bright light
Nixie	current riding	kelp net	right fin lead	coral pink	lemon juice
Caspian	tide control	abalone shield	right fin lead	pearl silver	lemon juice
Hali	tide control	conch horn	left fin lead	kelp green	bright light
Muriel	coral shaping	sea urchin mace	right fin lead	pearl silver	high pitches
Poseidon	coral shaping	kelp net	right fin lead	kelp green	high pitches
Calypso	current riding	prism goggles	left fin lead	pearl silver	lemon juice
Oceanus	coral shaping	sea urchin mace	right fin lead	pearl silver	lemon juice
Waverly	kelp weaving	abalone shield	left fin lead	coral pink	bright light
Undine	coral shaping	sea urchin mace	right fin lead	pearl silver	bright light
Delphine	coral shaping	abalone shield	right fin lead	kelp green	lemon juice
Kai	coral shaping	conch horn	left fin lead	kelp green	bright light
Triton	current riding	abalone shield	left fin lead	coral pink	bright light

CLUE 1
Multiplication facts (1-12)

The palace guards counted the rows of pearl cases. Each shelf holds the same number of pearls, and multiplication reveals the total count. Among the shelves, we found our first clue.

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

T			T															T
56	70	9	56	70	20	9	8	7	10	9	64	120	10		56			
36	48	99	99	55	48	36	10	120	36	70	70	10	99	120				

$8 \times 7 = \square \rightarrow \boxed{\text{T}}$

$11 \times 9 = \square \rightarrow \boxed{\text{R}}$

$10 \times 7 = \square \rightarrow \boxed{\text{H}}$

$6 \times 8 = \square \rightarrow \boxed{\text{A}}$

$7 \times 1 = \square \rightarrow \boxed{\text{D}}$

$10 \times 2 = \square \rightarrow \boxed{\text{I}}$

$1 \times 10 = \square \rightarrow \boxed{\text{O}}$

$9 \times 4 = \square \rightarrow \boxed{\text{C}}$

$8 \times 8 = \square \rightarrow \boxed{\text{S}}$

$10 \times 12 = \square \rightarrow \boxed{\text{N}}$

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

$1 \times 8 = \square \rightarrow \boxed{\text{F}}$

$1 \times 9 = \square \rightarrow \boxed{\text{E}}$

Scratch space:

CLUE 2 Rounding

Our sonar systems only show rough estimates. By rounding the distance to the nearest hundred meters, we pinpointed the exact cavern where the suspect hid this evidence.

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

T									T										
2300	170	200	110	3000	110	1100	200	1300	2300	110	290	90	70	110	370	90	9000	110	

T		T						T	
2300	5000	2300	170	200	430	90	30	170	2300

Round 2,260 to the nearest hundred → **T**

Round 433 to the nearest ten → **R**

Round 112 to the nearest ten → **S**

Round 1,053 to the nearest hundred → **P**

Round 88 to the nearest ten → **I**

Round 5,283 to the nearest thousand → **O**

Round 71 to the nearest ten → **M**

Round 29 to the nearest ten → **G**

Round 1,313 to the nearest hundred → **C**

Round 173 to the nearest ten → **H**

Round 200 to the nearest hundred → **E**

Round 368 to the nearest ten → **B**

Round 293 to the nearest ten → **W**

Round 8,712 to the nearest thousand → **A**

Round 3,454 to the nearest thousand → **U**

Scratch space:

CLUE 3

Multi-step word problems

We tracked the suspect's winding path through the trench. By calculating the journey in stages-adding currents, subtracting detours, and finding the final speed-we uncovered a discarded clue.

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

Someone scared the villain off with L I C .

66 23 62 56 88 71 9 23

There were 691 clam shells in all. 31 clam shells were set aside. The rest were shared equally among 10 Triton Guard. How many clam shells did each get?

Answer: → L

Reef scout collected 24 sea-stars in the morning and 3 sea-stars in the afternoon, then split them equally among 3 Triton Guard. How many sea-stars did each get?

Answer: → U

Reef scout earned 8 clam shells in each of 2 rounds, plus 43 bonus clam shells. Then 3 clam shells were lost. How many clam shells are left?

Answer: → O

Reef scout filled 7 boxes with 8 sea-stars each, then found 15 more sea-stars. How many sea-stars are there in all?

Answer: → J

Reef scout filled 7 boxes with 4 clam shells each, then found 60 more clam shells. How many clam shells are there in all?

Answer: → N

Reef scout earned 6 clam shells in each of 4 rounds, plus 51 bonus clam shells. Then 13 clam shells were lost. How many clam shells are left?

Answer: → M

There were 241 clam shells in all. 11 clam shells were set aside. The rest were shared equally among 10 Triton Guard. How many clam shells did each get?

Answer: → E

Scratch space:

CLUE 4 Exponents

The magical energy field grows exponentially with every level of depth. Calculating this power curve using exponents allowed us to crack open the sealed lockbox.

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

W																			
289	729	256	25	196	121	49	441	125	36	121	36	121	343	441	36	512	100	729	144
484	400	36	512	441	27	400	512	729	441										

$17^2 = \square \rightarrow \text{W}$	$5^2 = \square \rightarrow \text{O}$	$21^2 = \square \rightarrow \text{S}$	$3^3 = \square \rightarrow \text{C}$
$20^2 = \square \rightarrow \text{A}$	$14^2 = \square \rightarrow \text{U}$	$7^3 = \square \rightarrow \text{G}$	$4^4 = \square \rightarrow \text{F}$
$3^6 = \square \rightarrow \text{E}$	$10^2 = \square \rightarrow \text{V}$	$12^2 = \square \rightarrow \text{R}$	$11^2 = \square \rightarrow \text{N}$
$7^2 = \square \rightarrow \text{D}$	$6^2 = \square \rightarrow \text{I}$	$5^3 = \square \rightarrow \text{H}$	$8^3 = \square \rightarrow \text{L}$
$22^2 = \square \rightarrow \text{T}$			

Scratch space:

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

We divided the reef patrol zone into equal sectors so each search team got an even share. In the final divided quadrant, we swept the sand and found the last 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:

$3 \div 1 = \boxed{}$

$54 \div 9 = \boxed{}$

$70 \div 7 = \boxed{}$

$84 \div 12 = \boxed{}$

$8 \div 4 = \boxed{}$

$56 \div 7 = \boxed{}$

$20 \div 4 = \boxed{}$

$108 \div 9 = \boxed{}$

$20 \div 5 = \boxed{}$

$45 \div 5 = \boxed{}$

$121 \div 11 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain surfed a deep-sea current, then blocked the defense beams with an abalone shield.
2. The villain shaped a coral barrier, then blared a distraction with a conch horn.
3. The villain summoned a sudden tide, then trapped the guard dolphins with a kelp net.
4. The villain tangled the guards in kelp, then smashed the display case with a sea urchin mace.
5. The villain shaped a coral barrier, then blocked the defense beams with an abalone shield.
6. The villain summoned a sudden tide, then blocked the defense beams with an abalone shield.
7. The villain sang a distracting melody, then blocked the defense beams with an abalone shield.
8. The villain sang a distracting melody, then trapped the guard dolphins with a kelp net.
9. The villain sang a distracting melody, then used prism goggles to see in the dark reef.
10. The villain shaped a coral barrier, then smashed the display case with a sea urchin mace.
11. The villain tangled the guards in kelp, then blared a distraction with a conch horn.
12. The villain summoned a sudden tide, then blared a distraction with a conch horn.

Answer Key

The Golden Triton Heist

Culprit: Ursula

current riding · abalone shield · right fin lead · pearl silver · lemon juice

Trail: Start 21 → Clue 1 17 → Clue 2 9 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE THIEF DOES NOT CARRY A CONCH HORN"

$8 \times 7 = 56$ (T) · $11 \times 9 = 99$ (R) · $10 \times 7 = 70$ (H) · $6 \times 8 = 48$ (A) · $7 \times 1 = 7$ (D) · $10 \times 2 = 20$ (I) · $1 \times 10 = 10$ (O) · $9 \times 4 = 36$ (C) · $8 \times 8 = 64$ (S) · $10 \times 12 = 120$ (N) · $11 \times 5 = 55$ (Y) · $1 \times 8 = 8$ (F) · $1 \times 9 = 9$ (E)

Clue 2 (Rounding): "THE SUSPECT SWIMS BIAS TO THE RIGHT"

Round 2,260 to the nearest hundred = 2300 (T) · Round 433 to the nearest ten = 430 (R) · Round 112 to the nearest ten = 110 (S) · Round 1,053 to the nearest hundred = 1100 (P) · Round 88 to the nearest ten = 90 (I) · Round 5,283 to the nearest thousand = 5000 (O) · Round 71 to the nearest ten = 70 (M) · Round 29 to the nearest ten = 30 (G) · Round 1,313 to the nearest hundred = 1300 (C) · Round 173 to the nearest ten = 170 (H) · Round 200 to the nearest hundred = 200 (E) · Round 368 to the nearest ten = 370 (B) · Round 293 to the nearest ten = 290 (W) · Round 8,712 to the nearest thousand = 9000 (A) · Round 3,454 to the nearest thousand = 3000 (U)

Clue 3 (Multi-step word problems): "LEMON JUICE"

There were 691 clam shells in all. 31 clam shells were set aside. The rest were shared equally among 10 Triton Guard. How many clam shells did each get? = 66 (L) · Reef scout collected 24 sea-stars in the morning and 3 sea-stars in the afternoon, then split them equally among 3 Triton Guard. How many sea-stars did each get? = 9 (U) · Reef scout earned 8 clam shells in each of 2 rounds, plus 43 bonus clam shells. Then 3 clam shells were lost. How many clam shells are left? = 56 (O) · Reef scout filled 7 boxes with 8 sea-stars each, then found 15 more sea-stars. How many sea-stars are there in all? = 71 (J) · Reef scout filled 7 boxes with 4 clam shells each, then found 60 more clam shells. How many clam shells are there in all? = 88 (N) · Reef scout earned 6 clam shells in each of 4 rounds, plus 51 bonus clam shells. Then 13 clam shells were lost. How many clam shells are left? = 62 (M) · There were 241 clam shells in all. 11 clam shells were set aside. The rest were shared equally among 10 Triton Guard. How many clam shells did each get? = 23 (E)

Clue 4 (Exponents): "WE FOUND SHINING SILVER TAIL SCALES"

$17^{\wedge}2 = 289$ (W) · $5^{\wedge}2 = 25$ (O) · $21^{\wedge}2 = 441$ (S) · $3^{\wedge}3 = 27$ (C) · $20^{\wedge}2 = 400$ (A) · $14^{\wedge}2 = 196$ (U) · $7^{\wedge}3 = 343$ (G) · $4^{\wedge}4 = 256$ (F) · $3^{\wedge}6 = 729$ (E) · $10^{\wedge}2 = 100$ (V) · $12^{\wedge}2 = 144$ (R) · $11^{\wedge}2 = 121$ (N) · $7^{\wedge}2 = 49$ (D) · $6^{\wedge}2 = 36$ (I) · $5^{\wedge}3 = 125$ (H) · $8^{\wedge}3 = 512$ (L) · $22^{\wedge}2 = 484$ (T)

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

$3 \div 1 = 3$ · $54 \div 9 = 6$ · $70 \div 7 = 10$ · $84 \div 12 = 7$ · $8 \div 4 = 2$ · $56 \div 7 = 8$ · $20 \div 4 = 5$ · $108 \div 9 = 12$ · $20 \div 5 = 4$ · $45 \div 5 = 9$ · $121 \div 11 = 11$