# 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

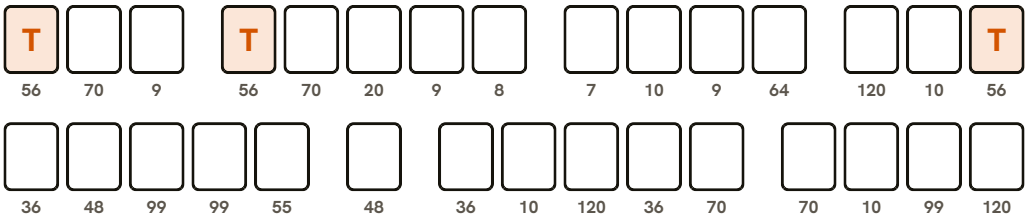
Cross off a row as each clue rules it out. The one left at the end is the culprit.

| 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.




8 × 7 = ☐ → **T**

11 × 9 = ☐ → **R**

10 × 7 = ☐ → **H**

6 × 8 = ☐ → **A**

7 × 1 = ☐ → **D**

10 × 2 = ☐ → **I**

1 × 10 = ☐ → **O**

9 × 4 = ☐ → **C**

8 × 8 = ☐ → **S**

10 × 12 = ☐ → **N**

11 × 5 = ☐ → **Y**

1 × 8 = ☐ → **F**

1 × 9 = ☐ → **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?

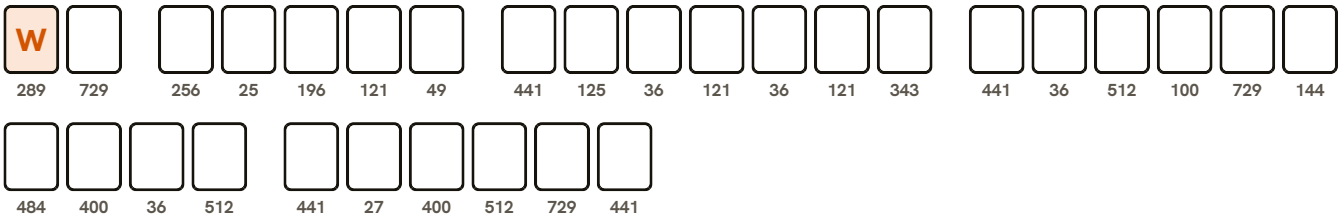
**Answer:** ☐ → **E**

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.




17^2 = ☐ → W

5^2 = ☐ → O

21^2 = ☐ → S

3^3 = ☐ → C

20^2 = ☐ → A

14^2 = ☐ → U

7^3 = ☐ → G

4^4 = ☐ → F

3^6 = ☐ → E

10^2 = ☐ → V

12^2 = ☐ → R

11^2 = ☐ → N

7^2 = ☐ → D

6^2 = ☐ → I

5^3 = ☐ → H

8^3 = ☐ → L

22^2 = ☐ → 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 ÷ 1 = ☐ | 54 ÷ 9 = ☐ | 70 ÷ 7 = ☐ | 84 ÷ 12 = ☐ | 8 ÷ 4 = ☐ |
| 56 ÷ 7 = ☐ | 20 ÷ 4 = ☐ | 108 ÷ 9 = ☐ | 20 ÷ 5 = ☐ | 45 ÷ 5 = ☐ |
| 121 ÷ 11 = ☐ | | | | |

**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.

TEACHER / PARENT

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

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

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

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