

The Mystery of the Sunken Royal Trident

Grade 6 math · Place value, Rounding, Addition, Multiplication, Division · Reading level grades 5-6

Detective: _____ **Date:** _____

During the annual Sunken Coral Festival, someone snuck into the royal vault and took the Sacred Tide Trident! The Royal Reef Guard needs your detective skills to decode the underwater clues, track the traits, and catch the thief.

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 Trident Thief is _____

Possible suspects

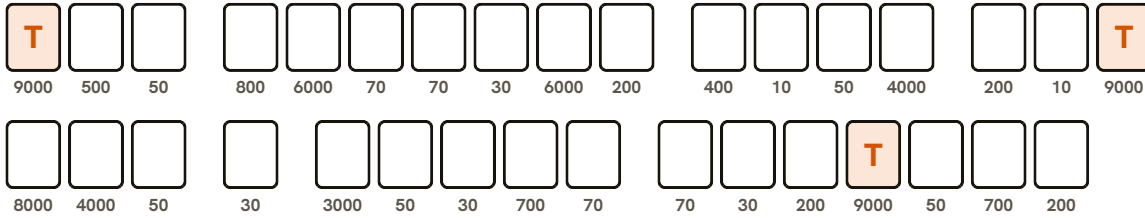
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	TIDE POWER	SEABED TOOL	SWIMMING STYLE	HAIR STREAK	DISLIKED SOUND
Nerida	Current Dash	Pearl Lantern	Left Handed Swimming	Ocean Blue Hair	Bright Jelly Glow
Coralline	Current Dash	Shell Compass	Left Handed Swimming	Ocean Blue Hair	Loud Conch Horns
Finn	Current Dash	Crab Whistle	Left Handed Swimming	Ocean Blue Hair	Bright Jelly Glow
Azure	Current Dash	Anchor Weight	Left Handed Swimming	Coral Pink Hair	Bright Jelly Glow
Triton	Kelp Weaving	Sea Glass Charm	Right Handed Swimming	Coral Pink Hair	Loud Conch Horns
Marina	Tide Bending	Pearl Lantern	Right Handed Swimming	Coral Pink Hair	Bright Jelly Glow
Zephyr	Whirlpool Magic	Crab Whistle	Left Handed Swimming	Ocean Blue Hair	Tickle Sea Sponge
Urchin	Kelp Weaving	Anchor Weight	Right Handed Swimming	Coral Pink Hair	Bright Jelly Glow
Cove	Current Dash	Shell Compass	Left Handed Swimming	Ocean Blue Hair	Bright Jelly Glow
Nixie	Whirlpool Magic	Crab Whistle	Right Handed Swimming	Ocean Blue Hair	Bright Jelly Glow
Caspian	Siren Harmony	Crab Whistle	Left Handed Swimming	Coral Pink Hair	Loud Conch Horns
Pearl	Current Dash	Pearl Lantern	Left Handed Swimming	Coral Pink Hair	Bright Jelly Glow
Reef	Siren Harmony	Sea Glass Charm	Right Handed Swimming	Ocean Blue Hair	Loud Conch Horns
Mako	Tide Bending	Crab Whistle	Left Handed Swimming	Ocean Blue Hair	Loud Conch Horns
Briny	Whirlpool Magic	Anchor Weight	Right Handed Swimming	Coral Pink Hair	Tickle Sea Sponge
Oceania	Whirlpool Magic	Sea Glass Charm	Right Handed Swimming	Kelp Green Hair	Bright Jelly Glow
Waverly	Whirlpool Magic	Pearl Lantern	Right Handed Swimming	Ocean Blue Hair	Loud Conch Horns
Kai	Tide Bending	Anchor Weight	Right Handed Swimming	Ocean Blue Hair	Loud Conch Horns
Delphina	Current Dash	Anchor Weight	Left Handed Swimming	Ocean Blue Hair	Bright Jelly Glow
Nerea	Kelp Weaving	Sea Glass Charm	Left Handed Swimming	Coral Pink Hair	Bright Jelly Glow
Thalassa	Siren Harmony	Crab Whistle	Left Handed Swimming	Ocean Blue Hair	Bright Jelly Glow

CLUE 1 Place value

You examine the sonar board where digit positions reveal a secret cipher depth.

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



What is the value of the 9 in 889,811? → **T**

What is the value of the 1 in 62,615? → **O**

What is the value of the 5 in 276,657? → **E**

What is the value of the 8 in 729,876? → **V**

What is the value of the 6 in 176,207? → **I**

What is the value of the 8 in 28,134? → **U**

What is the value of the 7 in 31,574? → **L**

What is the value of the 3 in 83,151? → **P**

What is the value of the 4 in 14,675? → **S**

What is the value of the 4 in 867,466? → **D**

What is the value of the 7 in 81,798? → **R**

What is the value of the 3 in 68,537? → **A**

What is the value of the 5 in 826,584? → **H**

What is the value of the 2 in 98,208? → **N**

Scratch space:

Rounding

The deep sea gauge only displays depth numbers rounded to the nearest hundred.

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

Diagram illustrating a sequence of numbers arranged in two rows of boxes. The top row contains 16 boxes, and the bottom row contains 14 boxes. The numbers are as follows:

Row	Box 1	Box 2	Box 3	Box 4	Box 5	Box 6	Box 7	Box 8	Box 9	Box 10	Box 11	Box 12	Box 13	Box 14	Box 15	Box 16		
Top Row	200	230	500	110	300	110	1700	500	7000	200	300	110	500	3000	4300	500	20	200
Bottom Row	230	700	90	3000	500	3000	110	1100	130	30	30	130	90	50				

Round 168 to the nearest hundred $\rightarrow$ **T**

Round 324 to the nearest hundred $\rightarrow$ **U**

Round 2,782 to the nearest thousand → **D**

Round 22 to the nearest ten $\rightarrow$ **F**

Round 233 to the nearest ten $\rightarrow$ **H**

Round 4,317 to the nearest hundred $\rightarrow$ **L**

Round 93 to the nearest ten $\rightarrow$ **N**

Round 108 to the nearest ten $\rightarrow$ **S**

Round 133 to the nearest ten $\rightarrow$ **I**

Round 714 to the nearest hundred → **A**

Round 51 to the nearest ten → **G**

Round 6,676 to the nearest thousand $\rightarrow$ **C**

Round 26 to the nearest ten $\rightarrow$ **M**

Round 1,657 to the nearest hundred $\rightarrow$ **P**

Round 462 to the nearest hundred → **E**

Round 1,120 to the nearest hundred → **W**

Scratch space:

CLUE 3 Addition

You tally up the glowing crystals gathered from around the sunken grotto.

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

T										T						
9817	4826	6216	3999	6314	3999	3227	6216	3914	9817	3002	8125	8923	2680	6216	2944	

						T						T				
8125	3988	8125	8923	4677	3999	9817	7828	3455	8923	3988	4826	9817	2753	6216	2680	4653

3988	2680	8610	5735

$3767 + 6050 = \square \rightarrow$ T	$2131 + 1324 = \square \rightarrow$ R	$2133 + 3602 = \square \rightarrow$ W
$5348 + 3262 = \square \rightarrow$ O	$3230 + 2986 = \square \rightarrow$ E	$2975 + 1678 = \square \rightarrow$ Y
$4252 + 4671 = \square \rightarrow$ I	$1842 + 1102 = \square \rightarrow$ D	$1429 + 2559 = \square \rightarrow$ G
$1602 + 2312 = \square \rightarrow$ C	$1033 + 1647 = \square \rightarrow$ L	$1502 + 1251 = \square \rightarrow$ J
$2555 + 1444 = \square \rightarrow$ S	$3849 + 3979 = \square \rightarrow$ B	$4691 + 3434 = \square \rightarrow$ A
$1747 + 3079 = \square \rightarrow$ H	$1280 + 1722 = \square \rightarrow$ F	$3893 + 2421 = \square \rightarrow$ U
$2746 + 1931 = \square \rightarrow$ N	$1323 + 1904 = \square \rightarrow$ P	

Scratch space:

CLUE 4

Multiplication facts (1-12)

The guard count comes from multiplying rows of clam shell vaults.

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

T											T						
49	55	7	50	132	7	35	7	132	48	35	49	70	60	35	7	8	

48	132	7	70	35	108	84	56	7	55	70	60	54

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

$6 \times 9 = \square \rightarrow \text{ R }$

$7 \times 12 = \square \rightarrow \text{ L }$

$12 \times 9 = \square \rightarrow \text{ B }$

$6 \times 8 = \square \rightarrow \text{ O }$

$5 \times 7 = \square \rightarrow \text{ N }$

$4 \times 2 = \square \rightarrow \text{ D }$

$8 \times 7 = \square \rightarrow \text{ U }$

$11 \times 5 = \square \rightarrow \text{ H }$

$1 \times 7 = \square \rightarrow \text{ E }$

$5 \times 10 = \square \rightarrow \text{ S }$

$5 \times 12 = \square \rightarrow \text{ I }$

$12 \times 11 = \square \rightarrow \text{ C }$

$10 \times 7 = \square \rightarrow \text{ A }$

Scratch space:

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

To open the treasure lock you must divide the magical pearls into equal sea sacks.

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:

$30 \div 3 = \boxed{}$

$12 \div 1 = \boxed{}$

$9 \div 1 = \boxed{}$

$28 \div 4 = \boxed{}$

$60 \div 10 = \boxed{}$

$30 \div 10 = \boxed{}$

$36 \div 9 = \boxed{}$

$64 \div 8 = \boxed{}$

$14 \div 7 = \boxed{}$

$55 \div 11 = \boxed{}$

$8 \div 8 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain bent the ocean tides, then dropped an anchor weight.
2. The villain summoned a whirlpool, then checked a shell compass.
3. The villain chanted siren harmonies, then checked a shell compass.
4. The villain bent the ocean tides, then lit a pearl lantern.
5. The villain chanted siren harmonies, then lit a pearl lantern.
6. The villain wove thick kelp ropes, then dropped an anchor weight.
7. The villain dashed with current speed, then flashed a sea glass charm.
8. The villain summoned a whirlpool, then flashed a sea glass charm.
9. The villain dashed with current speed, then checked a shell compass.
10. The villain dashed with current speed, then blew a crab whistle.
11. The villain chanted siren harmonies, then blew a crab whistle.
12. The villain dashed with current speed, then dropped an anchor weight.

Answer Key

The Mystery of the Sunken Royal Trident

Culprit: Thalassa

Siren Harmony · Crab Whistle · Left Handed Swimming · Ocean Blue Hair · Bright Jelly Glow

Trail: Start 21 → Clue 1 17 → Clue 2 10 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE VILLAIN DOES NOT USE A PEARL LANTERN"

What is the value of the 9 in 889,811? = 9000 (T) · What is the value of the 1 in 62,615? = 10 (O) · What is the value of the 5 in 276,657? = 50 (E) · What is the value of the 8 in 729,876? = 800 (V) · What is the value of the 6 in 176,207? = 6000 (I) · What is the value of the 8 in 28,134? = 8000 (U) · What is the value of the 7 in 31,574? = 70 (L) · What is the value of the 3 in 83,151? = 3000 (P) · What is the value of the 4 in 14,675? = 4000 (S) · What is the value of the 4 in 867,466? = 400 (D) · What is the value of the 7 in 81,798? = 700 (R) · What is the value of the 3 in 68,537? = 30 (A) · What is the value of the 5 in 826,584? = 500 (H) · What is the value of the 2 in 98,208? = 200 (N)

Clue 2 (Rounding): "THE SUSPECT USED LEFT HANDED SWIMMING"

Round 168 to the nearest hundred = 200 (T) · Round 324 to the nearest hundred = 300 (U) · Round 2,782 to the nearest thousand = 3000 (D) · Round 22 to the nearest ten = 20 (F) · Round 233 to the nearest ten = 230 (H) · Round 4,317 to the nearest hundred = 4300 (L) · Round 93 to the nearest ten = 90 (N) · Round 108 to the nearest ten = 110 (S) · Round 133 to the nearest ten = 130 (I) · Round 714 to the nearest hundred = 700 (A) · Round 51 to the nearest ten = 50 (G) · Round 6,676 to the nearest thousand = 7000 (C) · Round 26 to the nearest ten = 30 (M) · Round 1,657 to the nearest hundred = 1700 (P) · Round 462 to the nearest hundred = 500 (E) · Round 1,120 to the nearest hundred = 1100 (W)

Clue 3 (Addition): "THE SUSPECT FAILED AGAINST BRIGHT JELLY GLOW"

$3767 + 6050 = 9817$ (T) · $2131 + 1324 = 3455$ (R) · $2133 + 3602 = 5735$ (W) · $5348 + 3262 = 8610$ (O) · $3230 + 2986 = 6216$ (E) · $2975 + 1678 = 4653$ (Y) · $4252 + 4671 = 8923$ (I) · $1842 + 1102 = 2944$ (D) · $1429 + 2559 = 3988$ (G) · $1602 + 2312 = 3914$ (C) · $1033 + 1647 = 2680$ (L) · $1502 + 1251 = 2753$ (J) · $2555 + 1444 = 3999$ (S) · $3849 + 3979 = 7828$ (B) · $4691 + 3434 = 8125$ (A) · $1747 + 3079 = 4826$ (H) · $1280 + 1722 = 3002$ (F) · $3893 + 2421 = 6314$ (U) · $2746 + 1931 = 4677$ (N) · $1323 + 1904 = 3227$ (P)

Clue 4 (Multiplication facts (1-12)): "THE SCENE CONTAINED OCEAN BLUE HAIR"

$7 \times 7 = 49$ (T) · $6 \times 9 = 54$ (R) · $7 \times 12 = 84$ (L) · $12 \times 9 = 108$ (B) · $6 \times 8 = 48$ (O) · $5 \times 7 = 35$ (N) · $4 \times 2 = 8$ (D) · $8 \times 7 = 56$ (U) · $11 \times 5 = 55$ (H) · $1 \times 7 = 7$ (E) · $5 \times 10 = 50$ (S) · $5 \times 12 = 60$ (I) · $12 \times 11 = 132$ (C) · $10 \times 7 = 70$ (A)

Clue 5 (Division facts (1-12)): surviving statement is box 11 → Thalassa

$30 \div 3 = 10$ · $12 \div 1 = 12$ · $9 \div 1 = 9$ · $28 \div 4 = 7$ · $60 \div 10 = 6$ · $30 \div 10 = 3$ · $36 \div 9 = 4$ · $64 \div 8 = 8$ · $14 \div 7 = 2$ · $55 \div 11 = 5$ · $8 \div 8 = 1$