



The Mystery of the Missing Pearl Crown

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

Detective: _____ Date: _____

Queen Coralia's glowing pearl crown was snatched right from the palace vault! Detective Fin needs your help to decode clues, clear innocent mermaids, and catch the sneaky pearl 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 Pearl Thief is _____

Possible suspects

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

NAME	MAGIC TOOL	SEA PET	DOMINANT FIN	TAIL COLOR	FEAR
Caspian Depth	Kelp Lasso	Dolphin Companion	Left Fin	Ruby Red Tail	Bright Flashlights
Bubbles Waters	Neptune Trident	Seahorse Buddy	Left Fin	Ruby Red Tail	Tickly Sea Anemones
Shellie Sands	Pearl Staff	Seahorse Buddy	Left Fin	Ruby Red Tail	Loud Foghorns
Ariel Foam	Neptune Trident	Crab Sidekick	Right Fin	Emerald Green Tail	Bright Flashlights
Shelly Shore	Shell Wand	Seahorse Buddy	Left Fin	Ruby Red Tail	Loud Foghorns
Brook River	Pearl Staff	Seahorse Buddy	Left Fin	Ruby Red Tail	Bright Flashlights
Starla Kelp	Shell Wand	Jellyfish Friend	Right Fin	Sapphire Blue Tail	Tickly Sea Anemones
Nixie Lagoon	Starfish Scepter	Seahorse Buddy	Right Fin	Emerald Green Tail	Bright Flashlights
Ocean Spray	Kelp Lasso	Dolphin Companion	Left Fin	Sapphire Blue Tail	Bright Flashlights
Reef Swimmer	Kelp Lasso	Jellyfish Friend	Right Fin	Ruby Red Tail	Loud Foghorns
Sandy Bottom	Kelp Lasso	Jellyfish Friend	Right Fin	Emerald Green Tail	Tickly Sea Anemones
Delphine Blue	Pearl Staff	Sea Turtle Pet	Left Fin	Ruby Red Tail	Bright Flashlights
Ray Manta	Shell Wand	Dolphin Companion	Left Fin	Ruby Red Tail	Loud Foghorns
Cleo Conch	Pearl Staff	Jellyfish Friend	Left Fin	Sapphire Blue Tail	Tickly Sea Anemones
Pearl Glimmer	Neptune Trident	Crab Sidekick	Left Fin	Emerald Green Tail	Bright Flashlights
Kai Tide	Neptune Trident	Seahorse Buddy	Left Fin	Ruby Red Tail	Loud Foghorns
Triton Waves	Kelp Lasso	Seahorse Buddy	Left Fin	Sapphire Blue Tail	Loud Foghorns
Wade Shallow	Neptune Trident	Sea Turtle Pet	Left Fin	Ruby Red Tail	Loud Foghorns
Urchin Pike	Kelp Lasso	Sea Turtle Pet	Right Fin	Sapphire Blue Tail	Tickly Sea Anemones
Coral Reef	Shell Wand	Jellyfish Friend	Right Fin	Sapphire Blue Tail	Bright Flashlights
Finn Current	Shell Wand	Sea Turtle Pet	Right Fin	Emerald Green Tail	Loud Foghorns

CLUE 1

Multiplication facts (1-12)

Detective Fin counts equal rows of shiny clam shells near the vault to find the first cipher code.

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

T										T												
90	77	25	4	30	25	18	27	64	90	77	28	25	96	77	18	4	30	132				
			T			T																
4	25	18	90	36	70	90	15	25	42	25	90											

$10 \times 9 =$

→ T

$7 \times 11 =$

→ H

$6 \times 5 =$

→ N

$5 \times 3 =$

→ L

$10 \times 7 =$

→ R

$5 \times 5 =$

→ E

$1 \times 4 =$

→ S

$4 \times 9 =$

→ U

$11 \times 12 =$

→ O

$8 \times 8 =$

→ Y

$6 \times 3 =$

→ A

$7 \times 4 =$

→ I

$9 \times 3 =$

→ K

$6 \times 7 =$

→ P

$12 \times 8 =$

→ F

Scratch space:

CLUE 2 Rounding

The royal sonar radar rounds the distance to the thief's getaway path to give a quick estimate.

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

T									T									T	
4000	400	5000	60	9000	60	80	5000	800	4000	60	40	700	70	60	40	700	4000	400	

T								T			
4000	400	5000	700	7000	30	5000	500	4000	500	700	3000

Round 4,316 to the nearest thousand → **T**

Round 9,495 to the nearest thousand → **U**

Round 77 to the nearest ten → **P**

Round 454 to the nearest hundred → **F**

Round 4,672 to the nearest thousand → **E**

Round 3,195 to the nearest thousand → **N**

Round 775 to the nearest hundred → **C**

Round 70 to the nearest ten → **M**

Round 383 to the nearest hundred → **H**

Round 717 to the nearest hundred → **I**

Round 6,620 to the nearest thousand → **R**

Round 30 to the nearest ten → **L**

Round 62 to the nearest ten → **S**

Round 43 to the nearest ten → **W**

Scratch space:

CLUE 3 Addition

Fin gathers up all the loose pearls dropped in the hallway and adds them to his clue pouch.

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

L																			
874	571	638	706	201	571	546	796	571	358	671	470	706	358	571	657	779	444	796	779
444	796	988	779	201	607	384	576	227											

$526 + 348 = \square \rightarrow \text{L}$	$373 + 203 = \square \rightarrow \text{C}$	$485 + 221 = \square \rightarrow \text{D}$
$349 + 258 = \square \rightarrow \text{B}$	$233 + 125 = \square \rightarrow \text{R}$	$380 + 291 = \square \rightarrow \text{N}$
$151 + 76 = \square \rightarrow \text{K}$	$300 + 271 = \square \rightarrow \text{O}$	$255 + 215 = \square \rightarrow \text{S}$
$285 + 353 = \square \rightarrow \text{U}$	$144 + 300 = \square \rightarrow \text{T}$	$456 + 201 = \square \rightarrow \text{V}$
$426 + 353 = \square \rightarrow \text{E}$	$202 + 182 = \square \rightarrow \text{A}$	$474 + 322 = \square \rightarrow \text{H}$
$79 + 122 = \square \rightarrow \text{F}$	$222 + 324 = \square \rightarrow \text{G}$	$298 + 690 = \square \rightarrow \text{I}$

Scratch space:

CLUE 4

Subtraction

The palace guard checks how many sea crystals are left after the thief scrambled away.

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

W																		
199	518	197	859	161	194	813	363	390	161	208	540	390	518	813	443	363	246	169

149	808	363	169	518

$241 - 42 = \square \rightarrow \boxed{\text{W}}$

$400 - 203 = \square \rightarrow \boxed{\text{F}}$

$708 - 318 = \square \rightarrow \boxed{\text{R}}$

$574 - 328 = \square \rightarrow \boxed{\text{I}}$

$415 - 221 = \square \rightarrow \boxed{\text{N}}$

$917 - 104 = \square \rightarrow \boxed{\text{D}}$

$809 - 291 = \square \rightarrow \boxed{\text{E}}$

$626 - 86 = \square \rightarrow \boxed{\text{Y}}$

$198 - 49 = \square \rightarrow \boxed{\text{S}}$

$189 - 28 = \square \rightarrow \boxed{\text{U}}$

$692 - 249 = \square \rightarrow \boxed{\text{T}}$

$496 - 327 = \square \rightarrow \boxed{\text{L}}$

$896 - 37 = \square \rightarrow \boxed{\text{O}}$

$401 - 38 = \square \rightarrow \boxed{\text{A}}$

$1166 - 358 = \square \rightarrow \boxed{\text{C}}$

$502 - 294 = \square \rightarrow \boxed{\text{B}}$

Scratch space:

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

Fin splits the sea snails evenly into glass jars to reveal the final secret message.

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:

$40 \div 4 = \boxed{}$

$48 \div 6 = \boxed{}$

$18 \div 6 = \boxed{}$

$36 \div 6 = \boxed{}$

$49 \div 7 = \boxed{}$

$10 \div 10 = \boxed{}$

$36 \div 3 = \boxed{}$

$20 \div 5 = \boxed{}$

$77 \div 7 = \boxed{}$

$60 \div 12 = \boxed{}$

$14 \div 7 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain cast a beam with a scepter, then scuttled off with a crab sidekick.
2. The villain tapped a pearl staff on the gate, then rode off with a dolphin companion.
3. The villain waved a magical shell wand, then rode off with a dolphin companion.
4. The villain cast a beam with a scepter, then darted off with a seahorse buddy.
5. The villain tapped a pearl staff on the gate, then scuttled off with a crab sidekick.
6. The villain waved a magical shell wand, then floated away with a jellyfish friend.
7. The villain twirled a kelp lasso around, then zipped away with a sea turtle pet.
8. The villain waved a magical shell wand, then darted off with a seahorse buddy.
9. The villain tapped a pearl staff on the gate, then darted off with a seahorse buddy.
10. The villain zapped the vault with a trident, then darted off with a seahorse buddy.
11. The villain twirled a kelp lasso around, then rode off with a dolphin companion.
12. The villain waved a magical shell wand, then zipped away with a sea turtle pet.

Answer Key

The Mystery of the Missing Pearl Crown

Culprit: Shellie Sands

Pearl Staff · Seahorse Buddy · Left Fin · Ruby Red Tail · Loud Foghorns

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

Clue 1 (Multiplication facts (1-12)): "THE SNEAKY THIEF HAS NO SEA TURTLE PET"

$10 \times 9 = 90$ (T) · $7 \times 11 = 77$ (H) · $6 \times 5 = 30$ (N) · $5 \times 3 = 15$ (L) · $10 \times 7 = 70$ (R) · $5 \times 5 = 25$ (E) · $1 \times 4 = 4$ (S) · $4 \times 9 = 36$ (U) · $11 \times 12 = 132$ (O) · $8 \times 8 = 64$ (Y) · $6 \times 3 = 18$ (A) · $7 \times 4 = 28$ (I) · $9 \times 3 = 27$ (K) · $6 \times 7 = 42$ (P) · $12 \times 8 = 96$ (F)

Clue 2 (Rounding): "THE SUSPECT SWIMS WITH THEIR LEFT FIN"

Round 4,316 to the nearest thousand = 4000 (T) · Round 9,495 to the nearest thousand = 9000 (U) · Round 77 to the nearest ten = 80 (P) · Round 454 to the nearest hundred = 500 (F) · Round 4,672 to the nearest thousand = 5000 (E) · Round 3,195 to the nearest thousand = 3000 (N) · Round 775 to the nearest hundred = 800 (C) · Round 70 to the nearest ten = 70 (M) · Round 383 to the nearest hundred = 400 (H) · Round 717 to the nearest hundred = 700 (I) · Round 6,620 to the nearest thousand = 7000 (R) · Round 30 to the nearest ten = 30 (L) · Round 62 to the nearest ten = 60 (S) · Round 43 to the nearest ten = 40 (W)

Clue 3 (Addition): "LOUD FOGHORNS DROVE THE THIEF BACK"

$526 + 348 = 874$ (L) · $373 + 203 = 576$ (C) · $485 + 221 = 706$ (D) · $349 + 258 = 607$ (B) · $233 + 125 = 358$ (R) · $380 + 291 = 671$ (N) · $151 + 76 = 227$ (K) · $300 + 271 = 571$ (O) · $255 + 215 = 470$ (S) · $285 + 353 = 638$ (U) · $144 + 300 = 444$ (T) · $456 + 201 = 657$ (V) · $426 + 353 = 779$ (E) · $202 + 182 = 384$ (A) · $474 + 322 = 796$ (H) · $79 + 122 = 201$ (F) · $222 + 324 = 546$ (G) · $298 + 690 = 988$ (I)

Clue 4 (Subtraction): "WE FOUND A RUBY RED TAIL SCALE"

$241 - 42 = 199$ (W) · $400 - 203 = 197$ (F) · $708 - 318 = 390$ (R) · $574 - 328 = 246$ (I) · $415 - 221 = 194$ (N) · $917 - 104 = 813$ (D) · $809 - 291 = 518$ (E) · $626 - 86 = 540$ (Y) · $198 - 49 = 149$ (S) · $189 - 28 = 161$ (U) · $692 - 249 = 443$ (T) · $496 - 327 = 169$ (L) · $896 - 37 = 859$ (O) · $401 - 38 = 363$ (A) · $1166 - 358 = 808$ (C) · $502 - 294 = 208$ (B)

Clue 5 (Division facts (1-12)): surviving statement is box 9 → Shellie Sands

$40 \div 4 = 10$ · $48 \div 6 = 8$ · $18 \div 6 = 3$ · $36 \div 6 = 6$ · $49 \div 7 = 7$ · $10 \div 10 = 1$ · $36 \div 3 = 12$ · $20 \div 5 = 4$ · $77 \div 7 = 11$ · $60 \div 12 = 5$ · $14 \div 7 = 2$