The Mystery of the Missing Neptune Pearl

Grade 5 math · Rounding, Skip counting, Word problems, Multi-step word problems, Missing addends · Reading level grades 5-6

Detective: _____ **Date:** _____

A sneaky reef snatcher swam into the Royal Vault of Pacifica and stole the glowing Neptune Pearl! The Grand Conch Keeper sounded the shell alarm, but the culprit darted into the sea maze. Detective, decode the clues left behind to unmask the guilty mermaid!

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 reef snatcher is _____

Possible suspects

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

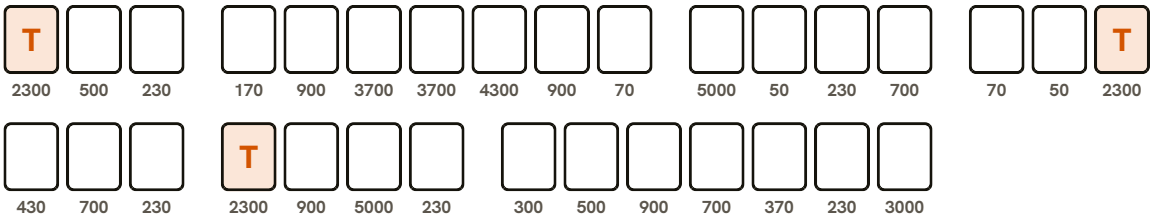
NAME	AQUATIC ABILITY	SEA RELIC	DOMINANT TAIL	SEAWEED HAIR	DISLIKE
Marina Splash	Tidal Wave	Pearl Flash	Right Finned	Neon Green Kelp	Loud Drums
Goby Gabe	Current Blast	Sea Mist	Left Finned	Deep Purple Seaweed	Fresh Water
Nerida Current	Siren Call	Shell Blast	Right Finned	Bright Crimson Algae	Bright Sunlight
Dory Glide	Current Blast	Sea Mist	Right Finned	Neon Green Kelp	Fresh Water
Shelly Conch	Tidal Wave	Shell Blast	Left Finned	Deep Purple Seaweed	Bright Sunlight
Anemone Ann	Bubble Shield	Tide Whisper	Right Finned	Bright Crimson Algae	Bright Sunlight
Breezy Bay	Whirlpool Spin	Pearl Flash	Right Finned	Bright Crimson Algae	Bright Sunlight
Ariel Tide	Current Blast	Shell Blast	Left Finned	Bright Crimson Algae	Bright Sunlight
Tide Tyler	Whirlpool Spin	Sea Mist	Left Finned	Bright Crimson Algae	Loud Drums
Sandy Shore	Whirlpool Spin	Shell Blast	Right Finned	Bright Crimson Algae	Loud Drums
Delphine Foam	Current Blast	Tide Whisper	Left Finned	Neon Green Kelp	Bright Sunlight
Nautilus Ned	Whirlpool Spin	Tide Whisper	Left Finned	Bright Crimson Algae	Fresh Water
Salty Sam	Siren Call	Shell Blast	Left Finned	Deep Purple Seaweed	Loud Drums
Casper Cove	Tidal Wave	Sea Mist	Right Finned	Bright Crimson Algae	Bright Sunlight
Pearl Swim	Siren Call	Pearl Flash	Right Finned	Bright Crimson Algae	Fresh Water
Finley Wave	Bubble Shield	Sea Mist	Right Finned	Bright Crimson Algae	Bright Sunlight
Oceanus Reef	Tidal Wave	Coral Glow	Left Finned	Neon Green Kelp	Loud Drums
Siren Sarah	Tidal Wave	Pearl Flash	Left Finned	Bright Crimson Algae	Loud Drums
Mako Ray	Whirlpool Spin	Sea Mist	Right Finned	Deep Purple Seaweed	Bright Sunlight
Coralia Drift	Siren Call	Tide Whisper	Right Finned	Bright Crimson Algae	Bright Sunlight
Triton Blue	Siren Call	Shell Blast	Left Finned	Neon Green Kelp	Fresh Water

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CLUE 1 Rounding

> The depth scanner on the guard tower only displays rounded figures, but calculating the approximate ocean depth reveals our first major lead.

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



Round 2,285 to the nearest hundred ☐ → **T**

Round 4,297 to the nearest hundred ☐ → **A**

Round 68 to the nearest ten ☐ → **N**

Round 3,661 to the nearest hundred ☐ → **L**

Round 481 to the nearest hundred ☐ → **H**

Round 719 to the nearest hundred ☐ → **S**

Round 167 to the nearest ten ☐ → **V**

Round 229 to the nearest ten ☐ → **E**

Round 263 to the nearest hundred ☐ → **W**

Round 4,828 to the nearest thousand ☐ → **D**

Round 2,963 to the nearest thousand ☐ → **R**

Round 851 to the nearest hundred ☐ → **I**

Round 51 to the nearest ten ☐ → **O**

Round 368 to the nearest ten ☐ → **P**

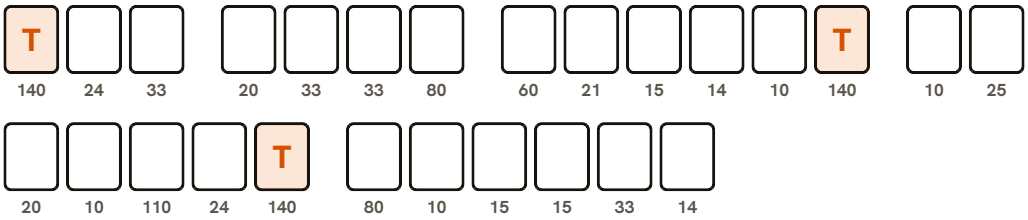
Round 428 to the nearest ten ☐ → **U**

Scratch space:

CLUE 2 Skip counting

> Counting speed markers placed along the coral barrier every few knots reveals a hidden message encoded in the swim paths.

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



Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, ___, 150, 160 ☐ → **T**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, ___, 90, 100 ☐ → **F**

Skip-count by 5s. Fill the blank: 5, 10, 15, ___, 25, 30 ☐ → **R**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, ___, 12, 14 ☐ → **I**

Skip-count by 5s. Fill the blank: 5, 10, ___, 20, 25 ☐ → **N**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, ___, 27, 30 ☐ → **H**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, ___, 24, 27 ☐ → **A**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, ___, 30, 35 ☐ → **S**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, ___, 70, 80 ☐ → **B**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, ___, 16, 18 ☐ → **D**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, ___, 36, 39 ☐ → **E**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, ___, 120, 130 ☐ → **G**

Scratch space:

CLUE 3 Word problems

A ledger recovered from the undersea market details recent trades for suspicious diving supplies.

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

Someone scared the villain off with

B							U	N	L				
15	52	59	57	46	113	97				59	57	46	113

.

There were 54 glowing pearls. 39 were used up. How many glowing pearls are left?

Answer: ☐ → B

There were 77 sea glass beads. 20 were used up. How many sea glass beads are left?

Answer: ☐ → G

Reef Guard found 7 glowing pearls yesterday and 52 more today. How many glowing pearls in all?

Answer: ☐ → I

There were 115 sea glass beads. 2 were used up. How many sea glass beads are left?

Answer: ☐ → T

There were 100 glowing pearls. 3 were used up. How many glowing pearls are left?

Answer: ☐ → S

Reef Guard found 22 prism corals yesterday and 30 more today. How many prism corals in all?

Answer: ☐ → R

Reef Guard found 2 shell coins yesterday and 44 more today. How many shell coins in all?

Answer: ☐ → H

Scratch space:

CLUE 4 Multi-step word problems

> Calculating the total weight of supplies harvested across multiple kelp farms points to where the thief hid their escape loot.

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

A strand of

B									M	S	O	N	A	L		A	E
71	51	45	50	24	77	53	51	45							50		

hair turned up at the scene.

There were 499 starfish tokens in all. 2 starfish tokens were set aside. The rest were shared equally among 7 Tide Patrol. How many starfish tokens did each get?

Answer: ☐ → **B**

There were 201 shell coins in all. 1 shell coins were set aside. The rest were shared equally among 4 Tide Patrol. How many shell coins did each get?

Answer: ☐ → **G**

Reef Guard earned 6 glowing pearls in each of 2 rounds, plus 53 bonus glowing pearls. Then 12 glowing pearls were lost. How many glowing pearls are left?

Answer: ☐ → **C**

Reef Guard collected 167 sea glass beads in the morning and 218 sea glass beads in the afternoon, then split them equally among 5 Tide Patrol. How many sea glass beads did each get?

Answer: ☐ → **T**

Reef Guard collected 8 shell coins in the morning and 145 shell coins in the afternoon, then split them equally among 3 Tide Patrol. How many shell coins did each get?

Answer: ☐ → **R**

There were 126 starfish tokens in all. 30 starfish tokens were set aside. The rest were shared equally among 4 Tide Patrol. How many starfish tokens did each get?

Answer: ☐ → **H**

There were 398 starfish tokens in all. 38 starfish tokens were set aside. The rest were shared equally among 8 Tide Patrol. How many starfish tokens did each get?

Answer: ☐ → **I**

Scratch space:

CLUE 5 Missing addends - the last clue

> The vault door safe requires filling in the missing numeric rune to unlock the final piece of evidence.

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:

4 + ___ = 11 ☐	24 + ___ = 27 ☐	13 + ___ = 19 ☐	7 + ___ = 18 ☐
29 + ___ = 39 ☐	30 + ___ = 35 ☐	20 + ___ = 22 ☐	6 + ___ = 15 ☐
37 + ___ = 41 ☐	3 + ___ = 4 ☐	4 + ___ = 16 ☐	

Step 2 - cross out the sentence with each answer:

1. The villain blasted a current, then flashed a pearl glow.
2. The villain cast a bubble shield, then whispered to the tide.
3. The villain cast a bubble shield, then created a sea mist.
4. The villain spun a whirlpool, then whispered to the tide.
5. The villain cast a bubble shield, then blasted a heavy shell.
6. The villain spun a whirlpool, then flashed a pearl glow.
7. The villain summoned a tidal wave, then created a sea mist.
8. The villain sang a siren call, then blasted a heavy shell.
9. The villain summoned a tidal wave, then shone a coral glow.
10. The villain blasted a current, then shone a coral glow.
11. The villain cast a bubble shield, then shone a coral glow.
12. The villain spun a whirlpool, then shone a coral glow.

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TEACHER / PARENT

Answer Key

The Mystery of the Missing Neptune Pearl

Culprit: Nerida Current

Siren Call · Shell Blast · Right Finned · Bright Crimson Algae · Bright Sunlight

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

Clue 1 (Rounding): "THE VILLAIN DOES NOT USE TIDE WHISPER"

Round 2,285 to the nearest hundred = 2300 (T) · Round 4,297 to the nearest hundred = 4300 (A) · Round 68 to the nearest ten = 70 (N) · Round 3,661 to the nearest hundred = 3700 (L) · Round 481 to the nearest hundred = 500 (H) · Round 719 to the nearest hundred = 700 (S) · Round 167 to the nearest ten = 170 (V) · Round 229 to the nearest ten = 230 (E) · Round 263 to the nearest hundred = 300 (W) · Round 4,828 to the nearest thousand = 5000 (D) · Round 2,963 to the nearest thousand = 3000 (R) · Round 851 to the nearest hundred = 900 (I) · Round 51 to the nearest ten = 50 (O) · Round 368 to the nearest ten = 370 (P) · Round 428 to the nearest ten = 430 (U)

Clue 2 (Skip counting): "THE REEF BANDIT IS RIGHT FINNED"

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, ___, 150, 160 = 140 (T) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, ___, 90, 100 = 80 (F) · Skip-count by 5s. Fill the blank: 5, 10, 15, ___, 25, 30 = 20 (R) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, ___, 12, 14 = 10 (I) · Skip-count by 5s. Fill the blank: 5, 10, ___, 20, 25 = 15 (N) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, ___, 27, 30 = 24 (H) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, ___, 24, 27 = 21 (A) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, ___, 30, 35 = 25 (S) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, ___, 70, 80 = 60 (B) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, ___, 16, 18 = 14 (D) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, ___, 36, 39 = 33 (E) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, ___, 120, 130 = 110 (G)

Clue 3 (Word problems): "BRIGHT SUNLIGHT"

There were 54 glowing pearls. 39 were used up. How many glowing pearls are left? = 15 (B) · There were 77 sea glass beads. 20 were used up. How many sea glass beads are left? = 57 (G) · Reef Guard found 7 glowing pearls yesterday and 52 more today. How many glowing pearls in all? = 59 (I) · There were 115 sea glass beads. 2 were used up. How many sea glass beads are left? = 113 (T) · There were 100 glowing pearls. 3 were used up. How many glowing pearls are left? = 97 (S) · Reef Guard found 22 prism corals yesterday and 30 more today. How many prism corals in all? = 52 (R) · Reef Guard found 2 shell coins yesterday and 44 more today. How many shell coins in all? = 46 (H)

Clue 4 (Multi-step word problems): "BRIGHT CRIMSON ALGAE"

There were 499 starfish tokens in all. 2 starfish tokens were set aside. The rest were shared equally among 7 Tide Patrol. How many starfish tokens did each get? = 71 (B) · There were 201 shell coins in all. 1 shell coins were set aside. The rest were shared equally among 4 Tide Patrol. How many shell coins did each get? = 50 (G) · Reef Guard earned 6 glowing pearls in each of 2 rounds, plus 53 bonus glowing pearls. Then 12 glowing pearls were lost. How many glowing pearls are left? = 53 (C) · Reef Guard collected 167 sea glass beads in the morning and 218 sea glass beads in the afternoon, then split them equally among 5 Tide Patrol. How many sea glass beads did each get? = 77 (T) · Reef Guard collected 8 shell coins in the morning and 145 shell coins in the afternoon, then split them equally among 3 Tide Patrol. How many shell coins did each get? = 51 (R) · There were 126 starfish tokens in all. 30 starfish tokens were set aside. The rest were shared equally among 4 Tide Patrol. How many starfish tokens did each get? = 24 (H) · There were 398 starfish tokens in all. 38 starfish tokens were set aside. The rest were shared equally among 8 Tide Patrol. How many starfish tokens did each get? = 45 (I)

Clue 5 (Missing addends): surviving statement is box 8 → Nerida Current

4 + ___ = 11 = 7 · 24 + ___ = 27 = 3 · 13 + ___ = 19 = 6 · 7 + ___ = 18 = 11 · 29 + ___ = 39 = 10 · 30 + ___ = 35 = 5 · 20 + ___ = 22 = 2 · 6 + ___ = 15 = 9 · 37 + ___ = 41 = 4 · 3 + ___ = 4 = 1 · 4 + ___ = 16 = 12