

The Mystery of the Missing Rainbow Pearl

Grade 1 math · Addition, Place value, Word problems, Rounding, Missing addends · Reading level grades 1-2

Detective: _____ Date: _____

A sneaky thief took the Great Rainbow Pearl from Coral Cove Reef! Detective Splash needs your help to solve the math clues and find out who took it before the big reef party.

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	SPECIAL MOVE	MERMAID POWER	SWIMMING STYLE	HAIR COLOR	WEAKNESS
Finley	Tail Whip	Singing Waves	Right Fin Waving	Coral Pink	Scared Of Sharks
Splash	Tide Call	Glow Fins	Right Fin Waving	Ocean Blue	Tickled By Crab
Nixie	Tide Call	Deep Diving	Left Fin Waving	Ocean Blue	Tickled By Crab
Triton	Pearl Zap	Star Power	Right Fin Waving	Seaweed Green	Tickled By Crab
Sandy	Tail Whip	Deep Diving	Left Fin Waving	Ocean Blue	Scared Of Sharks
Pearl	Bubble Shield	Fast Swimming	Right Fin Waving	Coral Pink	Bright Flashlight
Atlantis	Coral Armor	Deep Diving	Left Fin Waving	Ocean Blue	Tickled By Crab
Bubbles	Pearl Zap	Singing Waves	Right Fin Waving	Coral Pink	Tickled By Crab
Kelp	Pearl Zap	Fast Swimming	Right Fin Waving	Ocean Blue	Bright Flashlight
Current	Tide Call	Fast Swimming	Left Fin Waving	Seaweed Green	Bright Flashlight
Reef	Tide Call	Star Power	Right Fin Waving	Seaweed Green	Bright Flashlight
Wave	Bubble Shield	Glow Fins	Right Fin Waving	Ocean Blue	Tickled By Crab
Nautica	Bubble Shield	Singing Waves	Left Fin Waving	Seaweed Green	Scared Of Sharks
Ray	Bubble Shield	Star Power	Left Fin Waving	Ocean Blue	Scared Of Sharks
Shelly	Coral Armor	Deep Diving	Right Fin Waving	Coral Pink	Bright Flashlight
Misty	Coral Armor	Deep Diving	Right Fin Waving	Ocean Blue	Tickled By Crab
Cascade	Pearl Zap	Deep Diving	Right Fin Waving	Ocean Blue	Tickled By Crab
Marina	Tail Whip	Deep Diving	Right Fin Waving	Seaweed Green	Tickled By Crab
Delphine	Tide Call	Star Power	Right Fin Waving	Ocean Blue	Tickled By Crab
Ariel	Coral Armor	Fast Swimming	Left Fin Waving	Ocean Blue	Tickled By Crab
Kai	Bubble Shield	Fast Swimming	Right Fin Waving	Ocean Blue	Tickled By Crab

CLUE 1 Addition

We need to count all the shells found near the shell throne to find the first clue.

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

T																T
3	20	11	19	5	9	9	7	5	8	18	13	11	10	8	13	3

20	7	19	11	18	11	11	17	18	5	19	5	8	6			

$2 + 1 = \square \rightarrow \boxed{\text{T}}$

$13 + 5 = \square \rightarrow \boxed{\text{D}}$

$6 + 13 = \square \rightarrow \boxed{\text{V}}$

$7 + 10 = \square \rightarrow \boxed{\text{P}}$

$4 + 4 = \square \rightarrow \boxed{\text{N}}$

$7 + 3 = \square \rightarrow \boxed{\text{S}}$

$2 + 7 = \square \rightarrow \boxed{\text{L}}$

$3 + 3 = \square \rightarrow \boxed{\text{G}}$

$3 + 2 = \square \rightarrow \boxed{\text{I}}$

$5 + 2 = \square \rightarrow \boxed{\text{A}}$

$9 + 4 = \square \rightarrow \boxed{\text{O}}$

$11 + 9 = \square \rightarrow \boxed{\text{H}}$

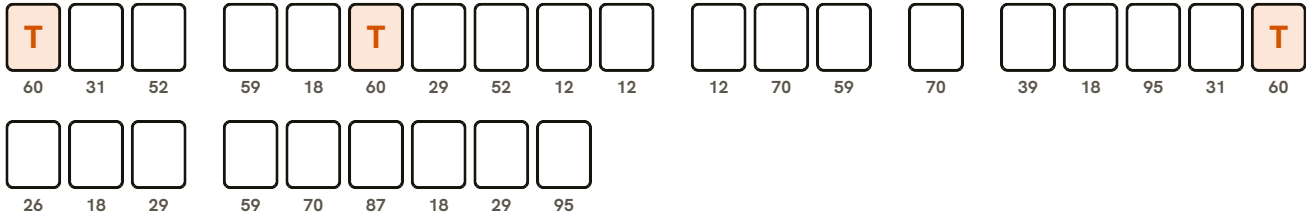
$3 + 8 = \square \rightarrow \boxed{\text{E}}$

Scratch space:

CLUE 2
Place value

Look at the tens and ones on the glowing reef board to unlock the next secret.

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



What number has 6 tens and 0 ones? → **T**

What number has 1 ten and 2 ones? → **S**

What number has 3 tens and 1 one? → **H**

What number has 5 tens and 2 ones? → **E**

What number has 7 tens and 0 ones? → **A**

What number has 5 tens and 9 ones? → **W**

What number has 9 tens and 5 ones? → **G**

What number has 1 ten and 8 ones? → **I**

What number has 2 tens and 6 ones? → **F**

What number has 2 tens and 9 ones? → **N**

What number has 8 tens and 7 ones? → **V**

What number has 3 tens and 9 ones? → **R**

Scratch space:

CLUE 3

Word problems

Solve this sea problem to hear what the tiny hermit crab saw.

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

Someone scared the villain off with

T

B
Y

R
A
B
.

There were 32 pearls. 9 were used up. How many pearls are left?

Answer: → T

Mermaid Coral found 8 sea glass pieces yesterday and 3 more today. How many sea glass pieces in all?

Answer: → I

Mermaid Coral lined up 5 rows of 3 pearls. How many pearls in all?

Answer: → C

Mermaid Coral found 15 glow stones yesterday and 23 more today. How many glow stones in all?

Answer: → K

Mermaid Coral found 6 sea glass pieces yesterday and 10 more today. How many sea glass pieces in all?

Answer: → L

Mermaid Coral lined up 11 rows of 3 glow stones. How many glow stones in all?

Answer: → D

There were 20 shiny shells. 3 were used up. How many shiny shells are left?

Answer: → E

Scratch space:

CLUE 4

Rounding

The sonar screen rounds the distance to the nearest ten to spot the villain.

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

A					A						A				A		
80	300	500	700	900	80	300	800	30	600	900	50	80	60	70	400	80	200
90	500	600	300	20													

Round 77 to the nearest ten → **A**

Round 604 to the nearest hundred → **U**

Round 889 to the nearest hundred → **E**

Round 727 to the nearest hundred → **C**

Round 19 to the nearest ten → **D**

Round 93 to the nearest ten → **F**

Round 398 to the nearest hundred → **W**

Round 820 to the nearest hundred → **B**

Round 241 to the nearest hundred → **S**

Round 48 to the nearest ten → **H**

Round 71 to the nearest ten → **R**

Round 328 to the nearest hundred → **N**

Round 30 to the nearest ten → **L**

Round 57 to the nearest ten → **I**

Round 516 to the nearest hundred → **O**

Scratch space:

CLUE 5**Missing addends - the last clue**

Find the missing number of bubbles to decode the final 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:

$4 + \underline{\quad} = 8$

$8 + \underline{\quad} = 15$

$3 + \underline{\quad} = 6$

$1 + \underline{\quad} = 7$

$5 + \underline{\quad} = 7$

$6 + \underline{\quad} = 16$

$4 + \underline{\quad} = 13$

$8 + \underline{\quad} = 9$

$1 + \underline{\quad} = 9$

$1 + \underline{\quad} = 13$

$2 + \underline{\quad} = 13$

Step 2 - cross out the sentence with each answer:

1. The villain shot a pearl zap, then started singing waves.
2. The villain put on coral armor, then used star power.
3. The villain made a bubble shield, then flashed glow fins.
4. The villain used a tide call, then used star power.
5. The villain made a bubble shield, then did fast swimming.
6. The villain put on coral armor, then started singing waves.
7. The villain used a tide call, then flashed glow fins.
8. The villain used a tail whip, then did fast swimming.
9. The villain put on coral armor, then went deep diving.
10. The villain used a tide call, then started singing waves.
11. The villain used a tail whip, then flashed glow fins.
12. The villain used a tide call, then went deep diving.

Answer Key

The Mystery of the Missing Rainbow Pearl

Culprit: Kai

Bubble Shield · Fast Swimming · Right Fin Waving · Ocean Blue · Tickled By Crab

Trail: Start 21 → Clue 1 14 → Clue 2 10 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE VILLAIN DOES NOT HAVE DEEP DIVING"

$2 + 1 = 3$ (T) · $13 + 5 = 18$ (D) · $6 + 13 = 19$ (V) · $7 + 10 = 17$ (P) · $4 + 4 = 8$ (N) · $7 + 3 = 10$ (S) · $2 + 7 = 9$ (L) · $3 + 3 = 6$ (G) · $3 + 2 = 5$ (I) · $5 + 2 = 7$ (A) · $9 + 4 = 13$ (O) · $11 + 9 = 20$ (H) · $3 + 8 = 11$ (E)

Clue 2 (Place value): "THE WITNESS SAW A RIGHT FIN WAVING"

What number has 6 tens and 0 ones? = 60 (T) · What number has 1 ten and 2 ones? = 12 (S) · What number has 3 tens and 1 one? = 31 (H) · What number has 5 tens and 2 ones? = 52 (E) · What number has 7 tens and 0 ones? = 70 (A) · What number has 5 tens and 9 ones? = 59 (W) · What number has 9 tens and 5 ones? = 95 (G) · What number has 1 ten and 8 ones? = 18 (I) · What number has 2 tens and 6 ones? = 26 (F) · What number has 2 tens and 9 ones? = 29 (N) · What number has 8 tens and 7 ones? = 87 (V) · What number has 3 tens and 9 ones? = 39 (R)

Clue 3 (Word problems): "TICKLED BY CRAB"

There were 32 pearls. 9 were used up. How many pearls are left? = 23 (T) · Mermaid Coral found 8 sea glass pieces yesterday and 3 more today. How many sea glass pieces in all? = 11 (I) · Mermaid Coral lined up 5 rows of 3 pearls. How many pearls in all? = 15 (C) · Mermaid Coral found 15 glow stones yesterday and 23 more today. How many glow stones in all? = 38 (K) · Mermaid Coral found 6 sea glass pieces yesterday and 10 more today. How many sea glass pieces in all? = 16 (L) · Mermaid Coral lined up 11 rows of 3 glow stones. How many glow stones in all? = 33 (D) · There were 20 shiny shells. 3 were used up. How many shiny shells are left? = 17 (E)

Clue 4 (Rounding): "AN OCEAN BLUE HAIR WAS FOUND"

Round 77 to the nearest ten = 80 (A) · Round 604 to the nearest hundred = 600 (U) · Round 889 to the nearest hundred = 900 (E) · Round 727 to the nearest hundred = 700 (C) · Round 19 to the nearest ten = 20 (D) · Round 93 to the nearest ten = 90 (F) · Round 398 to the nearest hundred = 400 (W) · Round 820 to the nearest hundred = 800 (B) · Round 241 to the nearest hundred = 200 (S) · Round 48 to the nearest ten = 50 (H) · Round 71 to the nearest ten = 70 (R) · Round 328 to the nearest hundred = 300 (N) · Round 30 to the nearest ten = 30 (L) · Round 57 to the nearest ten = 60 (I) · Round 516 to the nearest hundred = 500 (O)

Clue 5 (Missing addends): surviving statement is box 5 → Kai

$4 + \underline{\quad} = 8 = 4$ · $8 + \underline{\quad} = 15 = 7$ · $3 + \underline{\quad} = 6 = 3$ · $1 + \underline{\quad} = 7 = 6$ · $5 + \underline{\quad} = 7 = 2$ · $6 + \underline{\quad} = 16 = 10$ · $4 + \underline{\quad} = 13 = 9$ · $8 + \underline{\quad} = 9 = 1$ · $1 + \underline{\quad} = 9 = 8$ · $1 + \underline{\quad} = 13 = 12$ · $2 + \underline{\quad} = 13 = 11$