



The Case of the Lost Pearl

Grade 1 math · Addition, Subtraction, Skip counting, Place value, Missing addends · Reading level grades 1-2

Detective: _____ Date: _____

Someone swam into the palace and took the Royal Pearl from Coral Cove! The Royal Reef Keeper needs your help. We must search the reef and find the mermaid sea-thief before sunset.

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 sea-thief is _____

Possible suspects

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

NAME	MAIN POWER	EXTRA POWER	CLUE LEFT BEHIND	HAIR COLOR	WEAKNESS
Coralia	taming sharks	growing giant kelp	wears a shell crown	ocean blue hair	sneezes near purple sea sponge
Sunny	lighting up caves	hiding in sand	wears a sea star pin	seaweed green hair	afraid of tickly tickle fish
Shellie	lighting up caves	hiding in sand	wears a sea star pin	ocean blue hair	afraid of tickly tickle fish
Brooke	singing sweet songs	hiding in sand	wears a sea star pin	seaweed green hair	afraid of tickly tickle fish
Sandy	swimming super fast	hiding in sand	wears a shell crown	ocean blue hair	sneezes near purple sea sponge
Trixie	taming sharks	hiding in sand	wears a sea star pin	seaweed green hair	afraid of tickly tickle fish
Nerida	lighting up caves	hiding in sand	wears a shell crown	ocean blue hair	sneezes near purple sea sponge
Cove	lighting up caves	freezing water	wears a shell crown	ocean blue hair	afraid of tickly tickle fish
Opal	singing sweet songs	freezing water	wears a shell crown	ocean blue hair	afraid of tickly tickle fish
Delphine	singing sweet songs	freezing water	wears a shell crown	coral pink hair	afraid of tickly tickle fish
Finley	singing sweet songs	freezing water	wears a shell crown	ocean blue hair	gets dizzy in warm currents
Ariel	making bubbles	freezing water	wears a shell crown	coral pink hair	sneezes near purple sea sponge
Siren	singing sweet songs	hiding in sand	wears a shell crown	coral pink hair	afraid of tickly tickle fish
Cleo	singing sweet songs	spinning small whirlpools	wears a shell crown	coral pink hair	sneezes near purple sea sponge
Marina	swimming super fast	hiding in sand	wears a sea star pin	ocean blue hair	sneezes near purple sea sponge
Kelp	making bubbles	spinning small whirlpools	wears a shell crown	ocean blue hair	sneezes near purple sea sponge
Pearl	singing sweet songs	talking to crabs	wears a shell crown	coral pink hair	sneezes near purple sea sponge
Lulu	lighting up caves	talking to crabs	wears a sea star pin	seaweed green hair	gets dizzy in warm currents
Piper	making bubbles	freezing water	wears a shell crown	seaweed green hair	gets dizzy in warm currents
Aqua	taming sharks	freezing water	wears a shell crown	ocean blue hair	sneezes near purple sea sponge
Melody	lighting up caves	growing giant kelp	wears a sea star pin	seaweed green hair	gets dizzy in warm currents

CLUE 1

We find shiny seashells left on the sand. Let us add the shells together to get a clue.

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

14 10 4 8 20 9 9 19 20 7 2 16 4 17 7 16 14

17 18 20 7 11 10 20 6 9 18 16 16 9 17

$9 + 5 = \boxed{} \rightarrow \boxed{\text{T}}$

$$8 + 8 = \boxed{} \rightarrow \boxed{0}$$

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

8 + 9 = → **S**

$5 + 1 = \boxed{} \rightarrow \boxed{\text{R}}$

$8 + 3 = \boxed{} \rightarrow \boxed{W}$

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

$$5 + 2 = \boxed{} \rightarrow \boxed{\text{N}}$$

$4 + 4 = \square \rightarrow \mathbf{V}$

$1 + 1 = \square \rightarrow \boxed{\mathbf{D}}$

$11 + 7 = \square \rightarrow \boxed{\text{P}}$

$3 + 1 = \square \rightarrow \mathbf{E}$

$13 + 7 = \boxed{} \rightarrow \boxed{1}$

$7 + 12 = \square \rightarrow$

Scratch space:

CLUE 2

Subtraction

Coral the turtle has some clams but a crab took some away. Take away the crabs clams to find the next clue.

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

T									T						
3	10	8	17	16	17	9	8	11	3	6	8	1	18	17	1

17	10	8	5	5	11	18	4	6	12

$10 - 7 = \square \rightarrow \boxed{\text{T}}$

$15 - 4 = \square \rightarrow \boxed{\text{C}}$

$20 - 3 = \square \rightarrow \boxed{\text{S}}$

$9 - 1 = \square \rightarrow \boxed{\text{E}}$

$17 - 7 = \square \rightarrow \boxed{\text{H}}$

$11 - 7 = \square \rightarrow \boxed{\text{O}}$

$8 - 2 = \square \rightarrow \boxed{\text{W}}$

$20 - 4 = \square \rightarrow \boxed{\text{U}}$

$13 - 4 = \square \rightarrow \boxed{\text{P}}$

$19 - 1 = \square \rightarrow \boxed{\text{R}}$

$19 - 7 = \square \rightarrow \boxed{\text{N}}$

$9 - 4 = \square \rightarrow \boxed{\text{L}}$

$6 - 5 = \square \rightarrow \boxed{\text{A}}$

Scratch space:

CLUE 3 Skip counting

We swim past groups of sea stars. Count them by twos to follow the path.

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

P			P				P											
45	9	140	45	50	22	24	45	25	65	40	22	24	14	130	42	22		
12	30	22	14	24	65	22	22	120	22									

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, __, 50, 55 → **P**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, __, 130, 140 → **Z**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 → **N**

Skip-count by 3s. Fill the blank: 3, 6, __, 12, 15 → **U**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, __, 26, 28 → **S**

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

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

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, __, 140, 150 → **A**

Skip-count by 10s. Fill the blank: 10, 20, 30, __, 50, 60 → **G**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, __, 45, 48 → **K**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, __, 33, 36 → **H**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, __, 24, 26 → **E**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 → **O**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, __, 60, 70 → **L**

Skip-count by 3s. Fill the blank: 3, 6, 9, __, 15, 18 → **T**

Scratch space:

CLUE 4
Place value

A secret chest is locked. The lock uses tens and ones to show the code.

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

W															
25	73	76	97	99	61	39	45	54	99	73	97	86	73	55	61

15	55	91	72

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

What number has 7 tens and 2 ones? → **R**

What number has 9 tens and 1 one? → **I**

What number has 7 tens and 3 ones? → **E**

What number has 9 tens and 7 ones? → **O**

What number has 1 ten and 5 ones? → **H**

What number has 5 tens and 5 ones? → **A**

What number has 9 tens and 9 ones? → **U**

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

What number has 5 tens and 4 ones? → **L**

What number has 8 tens and 6 ones? → **C**

What number has 6 tens and 1 one? → **N**

What number has 4 tens and 5 ones? → **B**

What number has 7 tens and 6 ones? → **F**

Scratch space:

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

The Pearl Patrol needs ten bubble rings but they only have six. Find how many more they need.

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:

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

$1 + \underline{\quad} = 4$

$5 + \underline{\quad} = 12$

$2 + \underline{\quad} = 14$

$7 + \underline{\quad} = 13$

$10 + \underline{\quad} = 19$

$1 + \underline{\quad} = 11$

$1 + \underline{\quad} = 2$

$7 + \underline{\quad} = 15$

$2 + \underline{\quad} = 6$

$9 + \underline{\quad} = 20$

Step 2 - cross out the sentence with each answer:

1. The villain sang a very soft song, then grew giant kelp to block the road.
2. The villain swam fast past the reef, then hid deep in the warm sand.
3. The villain tamed a big wild shark, then froze a wall of water to escape.
4. The villain swam fast past the reef, then asked a crab to hide the key.
5. The villain tamed a big wild shark, then grew giant kelp to block the road.
6. The villain sang a very soft song, then hid deep in the warm sand.
7. The villain lit up a dark underwater cave, then hid deep in the warm sand.
8. The villain swam fast past the reef, then spun a small whirlpool to spin away.
9. The villain tamed a big wild shark, then asked a crab to hide the key.
10. The villain lit up a dark underwater cave, then spun a small whirlpool to spin away.
11. The villain blew a path of giant bubbles, then asked a crab to hide the key.
12. The villain lit up a dark underwater cave, then froze a wall of water to escape.

Answer Key

The Case of the Lost Pearl

Culprit: Coralia

taming sharks · growing giant kelp · wears a shell crown · ocean blue hair · sneezes near purple sea sponge

Trail: Start 21 → Clue 1 19 → Clue 2 12 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE VILLAIN DOES NOT SPIN WHIRLPOOLS"

$9 + 5 = 14$ (T) · $8 + 8 = 16$ (O) · $7 + 2 = 9$ (L) · $8 + 9 = 17$ (S) · $5 + 1 = 6$ (R) · $8 + 3 = 11$ (W) · $3 + 7 = 10$ (H) · $5 + 2 = 7$ (N) · $4 + 4 = 8$ (V) · $1 + 1 = 2$ (D) · $11 + 7 = 18$ (P) · $3 + 1 = 4$ (E) · $13 + 7 = 20$ (I) · $7 + 12 = 19$ (A)

Clue 2 (Subtraction): "THE SUSPECT WEARS A SHELL CROWN"

$10 - 7 = 3$ (T) · $15 - 4 = 11$ (C) · $20 - 3 = 17$ (S) · $9 - 1 = 8$ (E) · $17 - 7 = 10$ (H) · $11 - 7 = 4$ (O) · $8 - 2 = 6$ (W) · $20 - 4 = 16$ (U) · $13 - 4 = 9$ (P) · $19 - 1 = 18$ (R) · $19 - 7 = 12$ (N) · $9 - 4 = 5$ (L) · $6 - 5 = 1$ (A)

Clue 3 (Skip counting): "PURPLE SPONGES MAKE THEM SNEEZE"

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, __, 50, 55 = 45 (P) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, __, 130, 140 = 120 (Z) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 = 65 (N) · Skip-count by 3s. Fill the blank: 3, 6, __, 12, 15 = 9 (U) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, __, 26, 28 = 24 (S) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, __, 150, 160 = 140 (R) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, __, 16, 18 = 14 (M) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, __, 140, 150 = 130 (A) · Skip-count by 10s. Fill the blank: 10, 20, 30, __, 50, 60 = 40 (G) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, __, 45, 48 = 42 (K) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, __, 33, 36 = 30 (H) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, __, 24, 26 = 22 (E) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 = 25 (O) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, __, 60, 70 = 50 (L) · Skip-count by 3s. Fill the blank: 3, 6, 9, __, 15, 18 = 12 (T)

Clue 4 (Place value): "WE FOUND BLUE OCEAN HAIR"

What number has 2 tens and 5 ones? = 25 (W) · What number has 7 tens and 2 ones? = 72 (R) · What number has 9 tens and 1 one? = 91 (I) · What number has 7 tens and 3 ones? = 73 (E) · What number has 9 tens and 7 ones? = 97 (O) · What number has 1 ten and 5 ones? = 15 (H) · What number has 5 tens and 5 ones? = 55 (A) · What number has 9 tens and 9 ones? = 99 (U) · What number has 3 tens and 9 ones? = 39 (D) · What number has 5 tens and 4 ones? = 54 (L) · What number has 8 tens and 6 ones? = 86 (C) · What number has 6 tens and 1 one? = 61 (N) · What number has 4 tens and 5 ones? = 45 (B) · What number has 7 tens and 6 ones? = 76 (F)

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

$5 + \underline{\quad} = 7 = 2$ · $1 + \underline{\quad} = 4 = 3$ · $5 + \underline{\quad} = 12 = 7$ · $2 + \underline{\quad} = 14 = 12$ · $7 + \underline{\quad} = 13 = 6$ · $10 + \underline{\quad} = 19 = 9$ · $1 + \underline{\quad} = 11 = 10$ · $1 + \underline{\quad} = 2 = 1$ · $7 + \underline{\quad} = 15 = 8$ · $2 + \underline{\quad} = 6 = 4$ · $9 + \underline{\quad} = 20 = 11$