



# The Case of the Missing Glitter Pearl

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

Detective: \_\_\_\_\_ Date: \_\_\_\_\_

A sneaky sea thief has stolen the legendary Glitter Pearl from Coral Cove! The Royal Pearl Keeper needs your help to search the reef and track down the culprit before the coral loses its magical glow.

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     | SEA SPELL          | DEEP-SEA GEAR  | CLAM WATCH WRIST  | OCEAN HAIR COLOR | OCEAN DISTRACTION  |
|----------|--------------------|----------------|-------------------|------------------|--------------------|
| Attina   | tidal wave blast   | sea glass lens | right wrist watch | coral pink       | tickly starfish    |
| Talia    | fast current glide | pearl crown    | right wrist watch | ocean blue       | noisy hermit crab  |
| Nerida   | whirlpool swirl    | sea glass lens | left wrist watch  | ocean blue       | tickly starfish    |
| Adella   | jellyfish sting    | coral wand     | left wrist watch  | ocean blue       | bright lanternfish |
| Pearl    | jellyfish sting    | coral wand     | left wrist watch  | coral pink       | tickly starfish    |
| Coral    | whirlpool swirl    | coral wand     | left wrist watch  | seaweed green    | tickly starfish    |
| Melody   | bubble shield      | coral wand     | left wrist watch  | coral pink       | tickly starfish    |
| Ariel    | jellyfish sting    | kelp lasso     | left wrist watch  | coral pink       | tickly starfish    |
| Sirena   | jellyfish sting    | shell shield   | left wrist watch  | coral pink       | tickly starfish    |
| Triton   | fast current glide | coral wand     | right wrist watch | ocean blue       | noisy hermit crab  |
| Marina   | whirlpool swirl    | kelp lasso     | left wrist watch  | seaweed green    | bright lanternfish |
| Poseidon | bubble shield      | kelp lasso     | left wrist watch  | coral pink       | bright lanternfish |
| Caspian  | tidal wave blast   | kelp lasso     | right wrist watch | seaweed green    | noisy hermit crab  |
| Alana    | bubble shield      | kelp lasso     | left wrist watch  | ocean blue       | bright lanternfish |
| Shelly   | jellyfish sting    | pearl crown    | right wrist watch | ocean blue       | tickly starfish    |
| Muriel   | fast current glide | sea glass lens | right wrist watch | coral pink       | tickly starfish    |
| Coralia  | jellyfish sting    | coral wand     | left wrist watch  | seaweed green    | tickly starfish    |
| Sandy    | whirlpool swirl    | coral wand     | left wrist watch  | coral pink       | tickly starfish    |
| Delphine | whirlpool swirl    | pearl crown    | left wrist watch  | coral pink       | noisy hermit crab  |
| Andrina  | fast current glide | shell shield   | left wrist watch  | seaweed green    | bright lanternfish |
| Arista   | fast current glide | kelp lasso     | left wrist watch  | seaweed green    | noisy hermit crab  |

## CLUE 1 Addition

We need to count all the yellow shells on the reef. Let us add the shell piles together to open this clamshell!

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

|              |     |     |              |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|--------------|-----|-----|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <div>T</div> |     |     | <div>T</div> |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 847          | 658 | 741 | 847          | 658 | 610 | 741 | 416 | 902 | 339 | 741 | 297 | 471 | 339 | 847 | 805 | 297 | 741 | 518 |
|              |     |     |              |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 560          | 741 | 313 | 757          | 313 | 518 | 297 | 297 | 339 |     |     |     |     |     |     |     |     |     |     |

|                                            |                                            |                                            |
|--------------------------------------------|--------------------------------------------|--------------------------------------------|
| $538 + 309 = \square \rightarrow \text{T}$ | $384 + 373 = \square \rightarrow \text{P}$ | $263 + 395 = \square \rightarrow \text{H}$ |
| $280 + 330 = \square \rightarrow \text{I}$ | $148 + 268 = \square \rightarrow \text{F}$ | $101 + 196 = \square \rightarrow \text{S}$ |
| $308 + 497 = \square \rightarrow \text{U}$ | $175 + 164 = \square \rightarrow \text{O}$ | $284 + 234 = \square \rightarrow \text{A}$ |
| $402 + 500 = \square \rightarrow \text{D}$ | $107 + 206 = \square \rightarrow \text{L}$ | $261 + 210 = \square \rightarrow \text{N}$ |
| $298 + 262 = \square \rightarrow \text{K}$ | $434 + 307 = \square \rightarrow \text{E}$ |                                            |

Scratch space:

**CLUE 2**
**Subtraction**

A school of clownfish lost some friends in the seaweed. Subtract the missing fish to crack the sea chest lock.

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

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| A   |     | A   |     |     |     |     |     | A   |     |     |     |     |     |     |     |     |     |  |  |
| 223 | 383 | 223 | 168 | 519 | 663 | 383 | 223 | 245 | 245 | 671 | 792 | 168 | 168 | 431 | 797 | 792 | 471 |  |  |

  

|     |     |     |     |     |     |     |     |     |     |     |     |  |  |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|
|     |     |     |     |     |     |     |     |     |     |     |     |  |  |  |
| 168 | 663 | 431 | 202 | 431 | 489 | 168 | 383 | 576 | 898 | 245 | 168 |  |  |  |

$413 - 190 = \square \rightarrow \boxed{\text{A}}$

$592 - 347 = \square \rightarrow \boxed{\text{S}}$

$800 - 224 = \square \rightarrow \boxed{\text{R}}$

$901 - 238 = \square \rightarrow \boxed{\text{H}}$

$697 - 314 = \square \rightarrow \boxed{\text{W}}$

$418 - 250 = \square \rightarrow \boxed{\text{T}}$

$640 - 121 = \square \rightarrow \boxed{\text{C}}$

$857 - 60 = \square \rightarrow \boxed{\text{D}}$

$831 - 360 = \square \rightarrow \boxed{\text{N}}$

$748 - 77 = \square \rightarrow \boxed{\text{P}}$

$1019 - 227 = \square \rightarrow \boxed{\text{O}}$

$1070 - 172 = \square \rightarrow \boxed{\text{I}}$

$517 - 28 = \square \rightarrow \boxed{\text{F}}$

$633 - 202 = \square \rightarrow \boxed{\text{E}}$

$297 - 95 = \square \rightarrow \boxed{\text{L}}$

Scratch space:

## CLUE 3

## Multiplication facts (1-12)

The royal gardens have equal rows of sea anemones. Multiply the rows to find the secret path number!

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

|     |     |     |     |    |    |     |    |     |    |    |    |    |     |    |    |    |    |     |    |  |
|-----|-----|-----|-----|----|----|-----|----|-----|----|----|----|----|-----|----|----|----|----|-----|----|--|
| A   |     |     |     |    |    |     |    |     | A  |    |    |    |     |    |    |    | A  |     |    |  |
| 72  | 120 | 60  | 49  | 84 | 77 | 12  | 42 | 120 | 72 | 9  | 90 | 60 | 42  | 40 | 64 | 72 | 84 | 110 | 42 |  |
|     |     |     |     |    |    |     |    |     |    |    |    |    |     |    |    |    |    |     |    |  |
| 120 | 40  | 110 | 120 | 40 | 60 | 110 | 90 | 11  | 60 | 11 | 11 | 77 | 110 |    |    |    |    |     |    |  |

$8 \times 9 = \square \rightarrow \boxed{\text{A}}$

$9 \times 1 = \square \rightarrow \boxed{\text{R}}$

$10 \times 4 = \square \rightarrow \boxed{\text{H}}$

$10 \times 9 = \square \rightarrow \boxed{\text{F}}$

$2 \times 6 = \square \rightarrow \boxed{\text{Y}}$

$7 \times 7 = \square \rightarrow \boxed{\text{C}}$

$11 \times 10 = \square \rightarrow \boxed{\text{E}}$

$6 \times 7 = \square \rightarrow \boxed{\text{S}}$

$8 \times 8 = \square \rightarrow \boxed{\text{M}}$

$12 \times 7 = \square \rightarrow \boxed{\text{K}}$

$12 \times 10 = \square \rightarrow \boxed{\text{T}}$

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

$1 \times 11 = \square \rightarrow \boxed{\text{G}}$

$11 \times 7 = \square \rightarrow \boxed{\text{L}}$

Scratch space:

## CLUE 4

## Word problems

The sea turtles have a word puzzle for us. Solve their tricky riddle about swimming distances to get the next clue.

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

A strand of C        N K hair turned up at the scene.

66      31      49      22      58      42      20

Sandy the Seahorse lined up 6 rows of 11 starfish. How many starfish in all?  → C

Sandy the Seahorse found 10 bubble blower yesterday and 48 more today. How many bubble blower in all? → L

There were 89 sea shell. 40 were used up. How many sea shell are left?  → R

Sandy the Seahorse found 9 starfish yesterday and 22 more today. How many starfish in all?  → O

Sandy the Seahorse lined up 2 rows of 11 kelp leaf. How many kelp leaf in all?  → A

Sandy the Seahorse found 4 kelp leaf yesterday and 38 more today. How many kelp leaf in all?  → P

Sandy the Seahorse found 6 sea shell yesterday and 14 more today. How many sea shell in all?  → I

Scratch space:

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

Six hungry sea stars want to share the sparkly treats equally. Divide the treats to get 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:**

$6 \div 2 = \boxed{\phantom{00}}$

$77 \div 7 = \boxed{\phantom{00}}$

$22 \div 11 = \boxed{\phantom{00}}$

$8 \div 2 = \boxed{\phantom{00}}$

$10 \div 10 = \boxed{\phantom{00}}$

$90 \div 9 = \boxed{\phantom{00}}$

$20 \div 4 = \boxed{\phantom{00}}$

$80 \div 10 = \boxed{\phantom{00}}$

$63 \div 7 = \boxed{\phantom{00}}$

$24 \div 2 = \boxed{\phantom{00}}$

$42 \div 7 = \boxed{\phantom{00}}$

**Step 2 - cross out the sentence with each answer:**

1. The villain activates a protective bubble shield, then polishes a stolen pearl crown.
2. The villain fires a zapping jellyfish sting, then blocks the path with a shell shield.
3. The villain activates a protective bubble shield, then waves a glowing coral wand.
4. The villain rides a fast current glide, then looks through a sea glass lens.
5. The villain fires a zapping jellyfish sting, then polishes a stolen pearl crown.
6. The villain creates a massive tidal wave blast, then blocks the path with a shell shield.
7. The villain summons a wild whirlpool swirl, then waves a glowing coral wand.
8. The villain summons a wild whirlpool swirl, then blocks the path with a shell shield.
9. The villain activates a protective bubble shield, then looks through a sea glass lens.
10. The villain rides a fast current glide, then swings a long kelp lasso.
11. The villain fires a zapping jellyfish sting, then waves a glowing coral wand.
12. The villain creates a massive tidal wave blast, then looks through a sea glass lens.

# Answer Key

## The Case of the Missing Glitter Pearl

### Culprit: Sandy

whirlpool swirl · coral wand · left wrist watch · coral pink · tickly starfish

Trail: Start 21 → Clue 1 15 → Clue 2 10 → Clue 3 7 → Clue 4 4 → Clue 5 1

### Clue 1 (Addition): "THE THIEF DOES NOT USE A KELP LASSO"

$538 + 309 = 847$  (T) ·  $384 + 373 = 757$  (P) ·  $263 + 395 = 658$  (H) ·  $280 + 330 = 610$  (I) ·  $148 + 268 = 416$  (F) ·  $101 + 196 = 297$  (S) ·  $308 + 497 = 805$  (U) ·  $175 + 164 = 339$  (O) ·  $284 + 234 = 518$  (A) ·  $402 + 500 = 902$  (D) ·  $107 + 206 = 313$  (L) ·  $261 + 210 = 471$  (N) ·  $298 + 262 = 560$  (K) ·  $434 + 307 = 741$  (E)

### Clue 2 (Subtraction): "A WATCH WAS SPOTTED ON THE LEFT WRIST"

$413 - 190 = 223$  (A) ·  $592 - 347 = 245$  (S) ·  $800 - 224 = 576$  (R) ·  $901 - 238 = 663$  (H) ·  $697 - 314 = 383$  (W) ·  $418 - 250 = 168$  (T) ·  $640 - 121 = 519$  (C) ·  $857 - 60 = 797$  (D) ·  $831 - 360 = 471$  (N) ·  $748 - 77 = 671$  (P) ·  $1019 - 227 = 792$  (O) ·  $1070 - 172 = 898$  (I) ·  $517 - 28 = 489$  (F) ·  $633 - 202 = 431$  (E) ·  $297 - 95 = 202$  (L)

### Clue 3 (Multiplication facts (1-12)): "A TICKLY STARFISH MAKES THE THIEF GIGGLE"

$8 \times 9 = 72$  (A) ·  $9 \times 1 = 9$  (R) ·  $10 \times 4 = 40$  (H) ·  $10 \times 9 = 90$  (F) ·  $2 \times 6 = 12$  (Y) ·  $7 \times 7 = 49$  (C) ·  $11 \times 10 = 110$  (E) ·  $6 \times 7 = 42$  (S) ·  $8 \times 8 = 64$  (M) ·  $12 \times 7 = 84$  (K) ·  $12 \times 10 = 120$  (T) ·  $12 \times 5 = 60$  (I) ·  $1 \times 11 = 11$  (G) ·  $11 \times 7 = 77$  (L)

### Clue 4 (Word problems): "CORAL PINK"

Sandy the Seahorse lined up 6 rows of 11 starfish. How many starfish in all? = 66 (C) · Sandy the Seahorse found 10 bubble blower yesterday and 48 more today. How many bubble blower in all? = 58 (L) · There were 89 sea shell. 40 were used up. How many sea shell are left? = 49 (R) · Sandy the Seahorse found 9 starfish yesterday and 22 more today. How many starfish in all? = 31 (O) · Sandy the Seahorse lined up 2 rows of 11 kelp leaf. How many kelp leaf in all? = 22 (A) · Sandy the Seahorse found 4 kelp leaf yesterday and 38 more today. How many kelp leaf in all? = 42 (P) · Sandy the Seahorse found 6 sea shell yesterday and 14 more today. How many sea shell in all? = 20 (I)

### Clue 5 (Division facts (1-12)): surviving statement is box 7 → Sandy

$6 \div 2 = 3$  ·  $77 \div 7 = 11$  ·  $22 \div 11 = 2$  ·  $8 \div 2 = 4$  ·  $10 \div 10 = 1$  ·  $90 \div 9 = 10$  ·  $20 \div 4 = 5$  ·  $80 \div 10 = 8$  ·  $63 \div 7 = 9$  ·  $24 \div 2 = 12$  ·  $42 \div 7 = 6$