The Mystery of the Missing Royal Pearl

Grade 1 math · Addition, Multiplication, Subtraction, Skip counting, Division · Reading level grades 1-2

Detective: _____ **Date:** _____

Someone took the royal crown pearl from Coral Cove Palace! Use your math skills to help the Mermaid Patrol find the culprit.

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 Ocean Rascal is _____

Possible suspects

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

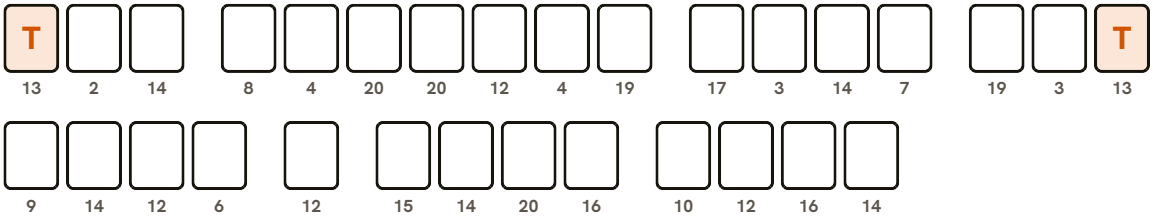
NAME	SPECIAL MOVE	MERMAID GEAR	BRACELET ARM	TAIL FIN COLOR	SECRET WEAKNESS
Kai	tide whip	star fin	wears left bracelet	blue tail fins	tickled by seaweed
Nerida	song call	glow tail	wears right bracelet	blue tail fins	tickled by seaweed
Maris	bubble shield	shell armor	wears right bracelet	gold tail fins	tickled by seaweed
Sandy	bubble shield	glow tail	wears right bracelet	pink tail fins	tickled by seaweed
Marina	wave dash	glow tail	wears right bracelet	blue tail fins	tickled by seaweed
Reef	song call	glow tail	wears left bracelet	pink tail fins	scared of crabs
Pearl	wave dash	star fin	wears right bracelet	gold tail fins	tickled by seaweed
Coralline	tide whip	sea glass lens	wears left bracelet	pink tail fins	scared of crabs
Splash	bubble shield	star fin	wears right bracelet	gold tail fins	tickled by seaweed
Coral	pearl blast	glow tail	wears right bracelet	blue tail fins	tickled by seaweed
Breeze	pearl blast	shell armor	wears right bracelet	blue tail fins	scared of crabs
Aqua	song call	glow tail	wears right bracelet	gold tail fins	tickled by seaweed
Delphine	tide whip	star fin	wears right bracelet	gold tail fins	startled by guppies
Nixie	pearl blast	shell armor	wears right bracelet	gold tail fins	tickled by seaweed
Tide	song call	star fin	wears right bracelet	pink tail fins	tickled by seaweed
Delta	pearl blast	shell armor	wears left bracelet	blue tail fins	startled by guppies
Harbor	bubble shield	sea glass lens	wears right bracelet	blue tail fins	tickled by seaweed
Ocean	wave dash	shell armor	wears right bracelet	gold tail fins	startled by guppies
Waverly	wave dash	shell armor	wears left bracelet	blue tail fins	scared of crabs
Ray	tide whip	star fin	wears left bracelet	gold tail fins	tickled by seaweed
Ariel	song call	kelp cape	wears right bracelet	blue tail fins	tickled by seaweed

make your own at mathcrackers.com

CLUE 1 Addition

Count the shining pearls we found in the sand to decode the first secret message.

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



9 + 4 = ☐ → T

2 + 5 = ☐ → S

1 + 2 = ☐ → O

5 + 7 = ☐ → A

9 + 6 = ☐ → K

7 + 7 = ☐ → E

6 + 4 = ☐ → C

1 + 3 = ☐ → I

4 + 4 = ☐ → V

9 + 11 = ☐ → L

1 + 1 = ☐ → H

4 + 2 = ☐ → R

5 + 4 = ☐ → W

11 + 8 = ☐ → N

11 + 5 = ☐ → P

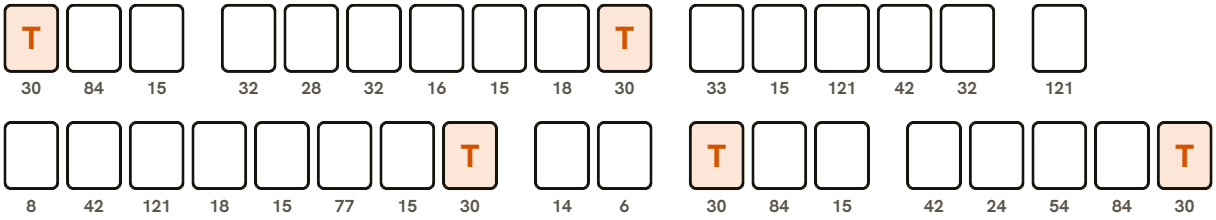
6 + 11 = ☐ → D

Scratch space:

CLUE 2 Multiplication facts (1-12)

> The sea turtles swim in equal groups across the reef to reveal the next hint.

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



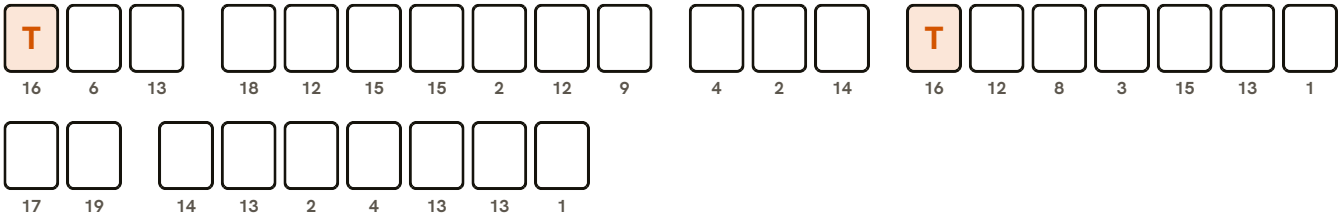
6 × 5 = ☐ → T	3 × 11 = ☐ → W	6 × 3 = ☐ → C
7 × 12 = ☐ → H	11 × 7 = ☐ → L	3 × 2 = ☐ → N
2 × 7 = ☐ → O	3 × 8 = ☐ → I	4 × 7 = ☐ → U
4 × 2 = ☐ → B	9 × 6 = ☐ → G	11 × 11 = ☐ → A
4 × 8 = ☐ → S	6 × 7 = ☐ → R	2 × 8 = ☐ → P
5 × 3 = ☐ → E		

Scratch space:

CLUE 3 Subtraction

Some glow shells floated away from our basket. Subtract them to unlock a clue.

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



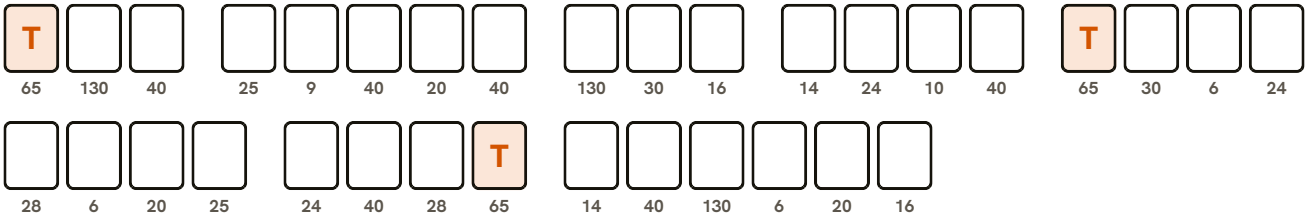
20 - 4 = ☐ → T	12 - 9 = ☐ → K	20 - 1 = ☐ → Y	
17 - 3 = ☐ → S	5 - 3 = ☐ → A	16 - 3 = ☐ → E	10 - 6 = ☐ → W
20 - 2 = ☐ → V	10 - 9 = ☐ → D	16 - 4 = ☐ → I	
17 - 9 = ☐ → C	11 - 2 = ☐ → N	18 - 3 = ☐ → L	
14 - 8 = ☐ → H	20 - 3 = ☐ → B		

Scratch space:

CLUE 4 Skip counting

Follow the trail of shiny starfish by skip counting along the sea floor.

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



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

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

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, ___, 18, 20 ☐ → D

Skip-count by 3s. Fill the blank: 3, 6, ___, 12, 15 ☐ → C

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, ___, 45, 50 ☐ → E

Skip-count by 2s. Fill the blank: 2, 4, ___, 8, 10 ☐ → I

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

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, ___, 30, 32 ☐ → F

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

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, ___, 35, 40 ☐ → A

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

Scratch space:

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

Share the sea glass gems equally among the clam shells to uncover 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:

144 ÷ 12 = ☐ | 45 ÷ 5 = ☐ | 2 ÷ 1 = ☐ | 20 ÷ 5 = ☐ | 11 ÷ 11 = ☐

48 ÷ 6 = ☐ | 54 ÷ 9 = ☐ | 6 ÷ 2 = ☐ | 35 ÷ 5 = ☐ | 30 ÷ 6 = ☐

60 ÷ 6 = ☐

Step 2 - cross out the sentence with each answer:

1. The villain raised a bubble shield, then shined a shell armor.
2. The villain used a wave dash, then flashed a glow tail.
3. The villain raised a bubble shield, then flashed a glow tail.
4. The villain raised a bubble shield, then waved a star fin.
5. The villain shot a pearl blast, then swung a kelp cape.
6. The villain sang a song call, then looked through a sea glass lens.
7. The villain used a wave dash, then waved a star fin.
8. The villain cracked a tide whip, then swung a kelp cape.
9. The villain shot a pearl blast, then flashed a glow tail.
10. The villain used a wave dash, then shined a shell armor.
11. The villain raised a bubble shield, then looked through a sea glass lens.
12. The villain sang a song call, then flashed a glow tail.

TEACHER / PARENT

Answer Key

The Mystery of the Missing Royal Pearl

Culprit: Harbor

bubble shield · sea glass lens · wears right bracelet · blue tail fins · tickled by seaweed

Trail: Start 21 → Clue 1 20 → Clue 2 14 → Clue 3 11 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE VILLAIN DOES NOT WEAR A KELP CAPE"

9 + 4 = 13 (T) · 2 + 5 = 7 (S) · 1 + 2 = 3 (O) · 5 + 7 = 12 (A) · 9 + 6 = 15 (K) · 7 + 7 = 14 (E) · 6 + 4 = 10 (C) · 1 + 3 = 4 (I) · 4 + 4 = 8 (V) · 9 + 11 = 20 (L) · 1 + 1 = 2 (H) · 4 + 2 = 6 (R) · 5 + 4 = 9 (W) · 11 + 8 = 19 (N) · 11 + 5 = 16 (P) · 6 + 11 = 17 (D)

Clue 2 (Multiplication facts (1-12)): "THE SUSPECT WEARS A BRACELET ON THE RIGHT"

6 × 5 = 30 (T) · 3 × 11 = 33 (W) · 6 × 3 = 18 (C) · 7 × 12 = 84 (H) · 11 × 7 = 77 (L) · 3 × 2 = 6 (N) · 2 × 7 = 14 (O) · 3 × 8 = 24 (I) · 4 × 7 = 28 (U) · 5 × 3 = 15 (E) · 4 × 2 = 8 (B) · 9 × 6 = 54 (G) · 11 × 11 = 121 (A) · 4 × 8 = 32 (S) · 6 × 7 = 42 (R) · 2 × 8 = 16 (P)

Clue 3 (Subtraction): "THE VILLAIN WAS TICKLED BY SEAWEED"

20 - 4 = 16 (T) · 12 - 9 = 3 (K) · 20 - 1 = 19 (Y) · 17 - 3 = 14 (S) · 5 - 3 = 2 (A) · 16 - 3 = 13 (E) · 10 - 6 = 4 (W) · 20 - 2 = 18 (V) · 10 - 9 = 1 (D) · 16 - 4 = 12 (I) · 17 - 9 = 8 (C) · 11 - 2 = 9 (N) · 18 - 3 = 15 (L) · 14 - 8 = 6 (H) · 20 - 3 = 17 (B)

Clue 4 (Skip counting): "THE SCENE HAD BLUE TAIL FINS LEFT BEHIND"

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, ___, 70, 75 = 65 (T) · Skip-count by 5s. Fill the blank: 5, 10, 15, ___, 25, 30 = 20 (N) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, ___, 18, 20 = 16 (D) · Skip-count by 3s. Fill the blank: 3, 6, ___, 12, 15 = 9 (C) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, ___, 140, 150 = 130 (H) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, ___, 45, 50 = 40 (E) · Skip-count by 2s. Fill the blank: 2, 4, ___, 8, 10 = 6 (I) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, ___, 12, 14 = 10 (U) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, ___, 30, 32 = 28 (F) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, ___, 30, 35 = 25 (S) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, ___, 16, 18 = 14 (B) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, ___, 35, 40 = 30 (A) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, ___, 27, 30 = 24 (L)

Clue 5 (Division facts (1-12)): surviving statement is box 11 → Harbor

144 ÷ 12 = 12 · 45 ÷ 5 = 9 · 2 ÷ 1 = 2 · 20 ÷ 5 = 4 · 11 ÷ 11 = 1 · 48 ÷ 6 = 8 · 54 ÷ 9 = 6 · 6 ÷ 2 = 3 · 35 ÷ 5 = 7 · 30 ÷ 6 = 5 · 60 ÷ 6 = 10