



The Mystery of the Great Glow Pearl

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

Detective: _____ Date: _____

Someone swam into the Royal Pearl Vault and snatched the Great Glow Pearl! The deep ocean is in total darkness without it. The Coral Cove Guard needs your help to track down the sneaky sea thief.

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	SWIMMER TELL	HAIR COLOR	WEAKNESS
Madison	kelp wrapping	glow light	right handed swimmer	bright pink hair	tickle feathers
Arista	coral growth	ink cloud	right handed swimmer	seaweed green hair	sour lemon kelp
Tallulah	coral growth	ink cloud	left handed swimmer	bright pink hair	sour lemon kelp
Alana	coral growth	tide sweep	left handed swimmer	seaweed green hair	tickle feathers
Aquata	bubble shield	ink cloud	left handed swimmer	deep blue hair	bright sunlight
Delphine	kelp wrapping	tide sweep	left handed swimmer	bright pink hair	tickle feathers
Chelsea	wave control	fast swim	left handed swimmer	deep blue hair	bright sunlight
Adella	wave control	sonar ping	right handed swimmer	deep blue hair	bright sunlight
Pearl	coral growth	fast swim	right handed swimmer	bright pink hair	sour lemon kelp
Naida	bubble shield	ink cloud	left handed swimmer	bright pink hair	sour lemon kelp
Coral	whale calling	ink cloud	right handed swimmer	bright pink hair	sour lemon kelp
Kailani	kelp wrapping	ink cloud	right handed swimmer	seaweed green hair	tickle feathers
Sirena	bubble shield	ink cloud	right handed swimmer	deep blue hair	bright sunlight
Nerida	whale calling	ink cloud	right handed swimmer	deep blue hair	tickle feathers
Andrina	wave control	glow light	right handed swimmer	seaweed green hair	tickle feathers
Melody	whale calling	fast swim	left handed swimmer	deep blue hair	tickle feathers
Marina	kelp wrapping	sonar ping	right handed swimmer	bright pink hair	sour lemon kelp
Waverly	coral growth	tide sweep	right handed swimmer	bright pink hair	sour lemon kelp
Nixie	bubble shield	sonar ping	right handed swimmer	deep blue hair	sour lemon kelp
Attina	bubble shield	glow light	left handed swimmer	bright pink hair	sour lemon kelp
Syrena	bubble shield	sonar ping	right handed swimmer	bright pink hair	sour lemon kelp

CLUE 1

Multiplication facts (1-12)

The Coral Cove guards counted rows of sea clams outside the vault to find clues. If each row has the same number of shells, let's multiply to find the total!

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

T			T											T			
88	2	27	88	2	80	27	100	77	24	27	5	90	24	88	21	5	27
T						T											
88	2	27	100	36	5	88	5	22	80	56	28	24	22	27	25		

$11 \times 8 = \square \rightarrow \boxed{\text{T}}$

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

$5 \times 5 = \square \rightarrow \boxed{\text{R}}$

$4 \times 7 = \square \rightarrow \boxed{\text{P}}$

$4 \times 9 = \square \rightarrow \boxed{\text{A}}$

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

$8 \times 10 = \square \rightarrow \boxed{\text{I}}$

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

$7 \times 3 = \square \rightarrow \boxed{\text{U}}$

$1 \times 2 = \square \rightarrow \boxed{\text{H}}$

$9 \times 3 = \square \rightarrow \boxed{\text{E}}$

$7 \times 8 = \square \rightarrow \boxed{\text{M}}$

$8 \times 3 = \square \rightarrow \boxed{\text{O}}$

$11 \times 2 = \square \rightarrow \boxed{\text{W}}$

$1 \times 5 = \square \rightarrow \boxed{\text{S}}$

Scratch space:

CLUE 2

The sonar radar screen was too fuzzy to show the exact distance. We must round the numbers to the nearest ten to see where the suspect went.

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

Diagram showing 8 number pyramids arranged in 2 rows and 4 columns. Each pyramid has a top box (orange with 'T') and four bottom boxes. The numbers in the bottom boxes are as follows:

- Pyramid 1 (Row 1, Col 1): 6000, 20, 30, 900
- Pyramid 2 (Row 1, Col 2): 20, 30, 900, 50
- Pyramid 3 (Row 1, Col 3): 900, 50, 900, 300
- Pyramid 4 (Row 1, Col 4): 300, 30, 40, 6000
- Pyramid 5 (Row 2, Col 1): 900, 700, 800, 80
- Pyramid 6 (Row 2, Col 2): 700, 4000, 6000, 20
- Pyramid 7 (Row 2, Col 3): 6000, 20, 30, 4000
- Pyramid 8 (Row 2, Col 4): 4000, 90, 90, 4000

Round 5,580 to the nearest thousand $\rightarrow$ **T**

Round 807 to the nearest hundred $\rightarrow$ **A**

Round 535 to the nearest hundred $\rightarrow$ **N**

Round 59 to the nearest ten → **G**

Round 34 to the nearest ten → **E**

Round 47 to the nearest ten $\rightarrow$ **U**

Round 80 to the nearest ten → **M**

Round 324 to the nearest hundred $\rightarrow$ **P**

Round 88 to the nearest ten $\rightarrow$ **R**

Round 20 to the nearest ten $\rightarrow$ **H**

Round 726 to the nearest hundred $\rightarrow$ **W**

Round 40 to the nearest ten $\rightarrow$ **C**

Round 8,014 to the nearest thousand → **D**

Round 869 to the nearest hundred $\rightarrow$ **S**

Round 3,525 to the nearest thousand $\rightarrow$

Round 6,958 to the nearest thousand → **F**

Scratch space:

CLUE 3 Addition

We found two piles of dropped ocean gems near the reef. Add them together to see how many the thief dropped in total.

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

T														T		
966	384	570	613	586	384	298	590	570	220	570	432	293	966	966	384	570
586	303	783	220	366	570	550	303	730	204	570	366	333				

$360 + 606 = \square \rightarrow \text{D}$	$176 + 256 = \square \rightarrow \text{D}$	$265 + 518 = \square \rightarrow \text{U}$
$109 + 95 = \square \rightarrow \text{K}$	$215 + 371 = \square \rightarrow \text{S}$	$95 + 208 = \square \rightarrow \text{O}$
$485 + 245 = \square \rightarrow \text{N}$	$207 + 363 = \square \rightarrow \text{E}$	$169 + 215 = \square \rightarrow \text{H}$
$227 + 363 = \square \rightarrow \text{V}$	$129 + 169 = \square \rightarrow \text{I}$	$423 + 190 = \square \rightarrow \text{Y}$
$381 + 169 = \square \rightarrow \text{M}$	$188 + 145 = \square \rightarrow \text{P}$	$90 + 203 = \square \rightarrow \text{A}$
$149 + 217 = \square \rightarrow \text{L}$	$78 + 142 = \square \rightarrow \text{R}$	

Scratch space:

CLUE 4

The thief took many pearls but dropped some while escaping. Let's subtract the dropped ones to see how many they have left.

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

853 796 216 621 461 389 345 105 216 791 461 850 753 134 705 118 345 441 796 853

621 345 753 564 796 351 345 118 540 853 118 351 753 134 540

$1141 - 288 = \boxed{} \rightarrow \boxed{\text{T}}$

$$693 - 232 = \boxed{} \rightarrow \boxed{0}$$

$$815 - 251 = \boxed{} \rightarrow \boxed{\text{K}}$$

$$966 - 213 = \boxed{} \rightarrow \boxed{\text{N}}$$

$$439 - 321 = \boxed{} \rightarrow \boxed{\text{R}}$$

$475 - 130 = \boxed{} \rightarrow \boxed{}$

$943 - 93 = \boxed{} \rightarrow \boxed{\text{U}}$

$485 - 269 = \boxed{} \rightarrow \boxed{\text{E}}$

$808 - 367 = \boxed{} \rightarrow \mathbf{G}$

$236 - 102 = \boxed{} \rightarrow \boxed{\mathbf{D}}$

$890 - 99 = \boxed{} \rightarrow \boxed{\text{F}}$

$$831 - 291 = \boxed{} \rightarrow \boxed{\text{S}}$$

$737 - 116 = \boxed{} \rightarrow \boxed{\text{P}}$

$814 - 109 = \boxed{} \rightarrow \boxed{\text{B}}$

$571 - 220 = \boxed{} \rightarrow \boxed{\mathbf{A}}$

$113 - 8 = \boxed{} \rightarrow \boxed{\text{C}}$

$$845 - 49 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$730 - 341 = \boxed{} \rightarrow \boxed{\text{L}}$$

Scratch space:

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

We need to share our search supplies equally among the rescue dolphins. Divide the fish treats so every dolphin gets a fair share.

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:

$10 \div 5 = \boxed{}$

$9 \div 9 = \boxed{}$

$80 \div 10 = \boxed{}$

$81 \div 9 = \boxed{}$

$35 \div 5 = \boxed{}$

$8 \div 2 = \boxed{}$

$96 \div 8 = \boxed{}$

$27 \div 9 = \boxed{}$

$48 \div 8 = \boxed{}$

$10 \div 2 = \boxed{}$

$55 \div 5 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain summoned a pod using whale calling, then blinded the pursuers with an ink cloud.
2. The villain blocked the vault with a bubble shield, then located the exit using a sonar ping.
3. The villain blocked the vault with a bubble shield, then blinded the pursuers with an ink cloud.
4. The villain pushed the guards back with wave control, then located the exit using a sonar ping.
5. The villain trapped the gates with kelp wrapping, then zoomed away using a fast swim.
6. The villain grew sharp branches of coral growth, then lit up the dark tunnel with a glow light.
7. The villain trapped the gates with kelp wrapping, then washed away clues with a tide sweep.
8. The villain grew sharp branches of coral growth, then washed away clues with a tide sweep.
9. The villain blocked the vault with a bubble shield, then lit up the dark tunnel with a glow light.
10. The villain trapped the gates with kelp wrapping, then located the exit using a sonar ping.
11. The villain pushed the guards back with wave control, then blinded the pursuers with an ink cloud.
12. The villain summoned a pod using whale calling, then washed away clues with a tide sweep.

Answer Key

The Mystery of the Great Glow Pearl

Culprit: Marina

kelp wrapping · sonar ping · right handed swimmer · bright pink hair · sour lemon kelp

Trail: Start 21 → Clue 1 18 → Clue 2 12 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE THIEF DOES NOT USE THE FAST SWIM POWER"

$11 \times 8 = 88$ (T) · $10 \times 9 = 90$ (N) · $5 \times 5 = 25$ (R) · $4 \times 7 = 28$ (P) · $4 \times 9 = 36$ (A) · $11 \times 7 = 77$ (D) · $8 \times 10 = 80$ (I) · $10 \times 10 = 100$ (F) · $7 \times 3 = 21$ (U) · $1 \times 2 = 2$ (H) · $9 \times 3 = 27$ (E) · $7 \times 8 = 56$ (M) · $8 \times 3 = 24$ (O) · $11 \times 2 = 22$ (W) · $1 \times 5 = 5$ (S)

Clue 2 (Rounding): "THE SUSPECT SWAM WITH THEIR RIGHT HAND FIRST"

Round 5,580 to the nearest thousand = 6000 (T) · Round 807 to the nearest hundred = 800 (A) · Round 535 to the nearest hundred = 500 (N) · Round 59 to the nearest ten = 60 (G) · Round 34 to the nearest ten = 30 (E) · Round 47 to the nearest ten = 50 (U) · Round 80 to the nearest ten = 80 (M) · Round 324 to the nearest hundred = 300 (P) · Round 88 to the nearest ten = 90 (R) · Round 20 to the nearest ten = 20 (H) · Round 726 to the nearest hundred = 700 (W) · Round 40 to the nearest ten = 40 (C) · Round 8,014 to the nearest thousand = 8000 (D) · Round 869 to the nearest hundred = 900 (S) · Round 3,525 to the nearest thousand = 4000 (I) · Round 6,958 to the nearest thousand = 7000 (F)

Clue 3 (Addition): "THEY SHIVERED AT THE SOUR LEMON KELP"

$360 + 606 = 966$ (T) · $176 + 256 = 432$ (D) · $265 + 518 = 783$ (U) · $109 + 95 = 204$ (K) · $215 + 371 = 586$ (S) · $95 + 208 = 303$ (O) · $485 + 245 = 730$ (N) · $207 + 363 = 570$ (E) · $169 + 215 = 384$ (H) · $227 + 363 = 590$ (V) · $129 + 169 = 298$ (I) · $423 + 190 = 613$ (Y) · $381 + 169 = 550$ (M) · $188 + 145 = 333$ (P) · $90 + 203 = 293$ (A) · $149 + 217 = 366$ (L) · $78 + 142 = 220$ (R)

Clue 4 (Subtraction): "THE POLICE FOUND BRIGHT PINK HAIR STRANDS"

$1141 - 288 = 853$ (T) · $693 - 232 = 461$ (O) · $815 - 251 = 564$ (K) · $966 - 213 = 753$ (N) · $439 - 321 = 118$ (R) · $475 - 130 = 345$ (I) · $943 - 93 = 850$ (U) · $485 - 269 = 216$ (E) · $808 - 367 = 441$ (G) · $236 - 102 = 134$ (D) · $890 - 99 = 791$ (F) · $831 - 291 = 540$ (S) · $737 - 116 = 621$ (P) · $814 - 109 = 705$ (B) · $571 - 220 = 351$ (A) · $113 - 8 = 105$ (C) · $845 - 49 = 796$ (H) · $730 - 341 = 389$ (L)

Clue 5 (Division facts (1-12)): surviving statement is box 10 → Marina

$10 \div 5 = 2$ · $9 \div 9 = 1$ · $80 \div 10 = 8$ · $81 \div 9 = 9$ · $35 \div 5 = 7$ · $8 \div 2 = 4$ · $96 \div 8 = 12$ · $27 \div 9 = 3$ · $48 \div 8 = 6$ · $10 \div 2 = 5$ · $55 \div 5 = 11$