



The Case of the Lost Pearl Crown

Grade 3 math · Rounding, Addition, Subtraction, Multiplication, Division · Reading level grades 1-2

Detective: _____ Date: _____

The Mermaid Queen's magical pearl crown is gone! A sneaky sea thief took it from the coral castle. Can you help us find the 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	SEA MAGIC	PIRATE GEAR	SWIM STYLE	SEAWEED HAIR	SCARED OF
Splash	bubbleblower	magic map	lefty splash	green kelp hair	tickly feathers
Marina	bubbleblower	iron cutlass	righty splash	blue algae hair	loud whistles
Pearl	stormcaller	iron cutlass	righty splash	blue algae hair	shiny mirrors
Captain Barnacle	wavespinner	shiny spyglass	lefty splash	pink coral hair	loud whistles
Shelly	bubbleblower	shiny spyglass	righty splash	blue algae hair	tickly feathers
Delphine	wavespinner	iron cutlass	righty splash	green kelp hair	loud whistles
Jolly Roger	stormcaller	silver hook	righty splash	pink coral hair	shiny mirrors
Salty Sam	bubbleblower	silver hook	righty splash	blue algae hair	shiny mirrors
Captain Redbeard	bubbleblower	silver hook	righty splash	pink coral hair	tickly feathers
Neptuna	wavespinner	magic map	lefty splash	blue algae hair	shiny mirrors
Calico Jack	bubbleblower	golden compass	righty splash	blue algae hair	shiny mirrors
Sirena	stormcaller	iron cutlass	lefty splash	blue algae hair	shiny mirrors
Anne Bonny	wavespinner	shiny spyglass	lefty splash	green kelp hair	tickly feathers
Long John Silver	wavespinner	magic map	righty splash	blue algae hair	shiny mirrors
Billy Bones	stormcaller	magic map	righty splash	pink coral hair	shiny mirrors
Captain Hook	fishwhisperer	golden compass	righty splash	pink coral hair	shiny mirrors
Waverly	stormcaller	iron cutlass	righty splash	blue algae hair	loud whistles
Pegleg Pete	tideturner	magic map	righty splash	blue algae hair	shiny mirrors
Smee	fishwhisperer	iron cutlass	righty splash	pink coral hair	loud whistles
Captain Blackbeard	tideturner	silver hook	righty splash	blue algae hair	shiny mirrors
Sandy	bubbleblower	golden compass	lefty splash	green kelp hair	shiny mirrors

CLUE 1 Rounding

A sea turtle looks at the ship radar. The radar only shows rounded numbers. Round the numbers to find the first clue.

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

T								T										T
500	80	700	400	7000	8000	200	500	700	6000	30	700	9000	20	30	500			
80	200	600	700	200	9000	7000	50	600	700	8000	80	30	30	300				

Round 522 to the nearest hundred → **T**

Round 554 to the nearest hundred → **V**

Round 7,329 to the nearest thousand → **I**

Round 32 to the nearest ten → **O**

Round 5,563 to the nearest thousand → **D**

Round 722 to the nearest hundred → **E**

Round 46 to the nearest ten → **L**

Round 163 to the nearest hundred → **A**

Round 7,733 to the nearest thousand → **R**

Round 78 to the nearest ten → **H**

Round 426 to the nearest hundred → **P**

Round 271 to the nearest hundred → **K**

Round 24 to the nearest ten → **N**

Round 8,601 to the nearest thousand → **S**

Scratch space:

CLUE 2 Addition

We find a treasure chest of gold coins. Let us count them. Add the piles of coins together to unlock the next clue.

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

T												T						T
217	743	283	761	552	763	936	761	743	554	665	217	743	283	822	889	286	743	217
761	889	331	283	581	936	761	743	229	286	283								

$124 + 93 = \square \rightarrow \mathbf{T}$	$354 + 198 = \square \rightarrow \mathbf{P}$	$145 + 138 = \square \rightarrow \mathbf{E}$
$224 + 107 = \square \rightarrow \mathbf{D}$	$393 + 543 = \square \rightarrow \mathbf{A}$	$510 + 379 = \square \rightarrow \mathbf{I}$
$312 + 431 = \square \rightarrow \mathbf{H}$	$232 + 433 = \square \rightarrow \mathbf{N}$	$356 + 198 = \square \rightarrow \mathbf{O}$
$354 + 227 = \square \rightarrow \mathbf{W}$	$161 + 68 = \square \rightarrow \mathbf{U}$	$165 + 121 = \square \rightarrow \mathbf{G}$
$398 + 424 = \square \rightarrow \mathbf{R}$	$497 + 266 = \square \rightarrow \mathbf{L}$	$485 + 276 = \square \rightarrow \mathbf{S}$

Scratch space:

Subtraction

A hungry shark ate some of our shiny pearls. How many do we have left? Subtract the numbers to get the third clue.

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

Diagram illustrating a sequence of numbers and positions:

Top Row (15 boxes):

- Box 1: T (421)
- Box 2: (766)
- Box 3: (500)
- Box 4: (330)
- Box 5: (831)
- Box 6: (798)
- Box 7: (104)
- Box 8: (798)
- Box 9: (214)
- Box 10: T (798)
- Box 11: (330)
- Box 12: (718)
- Box 13: (831)
- Box 14: (141)
- Box 15: (829)

Bottom Row (10 boxes):

- Box 1: (442)
- Box 2: (831)
- Box 3: (866)
- Box 4: (138)
- Box 5: (766)
- Box 6: T (421)
- Box 7: (829)
- Box 8: (866)
- Box 9: (831)
- Box 10: (831)
- Box 11: (141)
- Box 12: (831)

$$718 - 297 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$219 - 115 = \boxed{} \rightarrow \boxed{\text{N}}$$

$1240 - 374 = \boxed{} \rightarrow \boxed{\text{I}}$

$$507 - 366 = \boxed{} \rightarrow \boxed{0}$$

$1148 - 319 = \boxed{} \rightarrow \boxed{\text{M}}$

$1048 - 330 = \boxed{} \rightarrow \boxed{\text{F}}$

$425 - 287 = \boxed{} \rightarrow \boxed{\text{G}}$

$354 - 24 = \boxed{} \rightarrow \boxed{\mathbf{Y}}$

$253 - 39 = \boxed{} \rightarrow \boxed{\mathbf{W}}$

$$1010 - 179 = \boxed{} \rightarrow \boxed{\text{R}}$$

$508 - 66 = \boxed{} \rightarrow \boxed{\mathbf{B}}$

$1141 - 343 = \boxed{} \rightarrow \boxed{\text{A}}$

$$1145 - 379 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$709 - 209 = \boxed{} \rightarrow \boxed{\text{E}}$$

Scratch space:

CLUE 4

Multiplication facts (1-12)

The mermaids swim in neat rows. Each row has the same number of mermaids. Multiply the rows to find the fourth clue.

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

W																	
2	121	64	132	84	44	96	81	100	84	121	55	100	21	55	121	28	44
70	49	121	32	55	44	96											

$2 \times 1 = \square \rightarrow \boxed{W}$

$10 \times 10 = \square \rightarrow \boxed{L}$

$11 \times 12 = \square \rightarrow \boxed{O}$

$9 \times 9 = \square \rightarrow \boxed{B}$

$4 \times 11 = \square \rightarrow \boxed{N}$

$12 \times 7 = \square \rightarrow \boxed{U}$

$3 \times 7 = \square \rightarrow \boxed{G}$

$7 \times 10 = \square \rightarrow \boxed{T}$

$8 \times 8 = \square \rightarrow \boxed{F}$

$8 \times 12 = \square \rightarrow \boxed{D}$

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

$7 \times 4 = \square \rightarrow \boxed{I}$

$4 \times 8 = \square \rightarrow \boxed{S}$

$7 \times 7 = \square \rightarrow \boxed{H}$

$5 \times 11 = \square \rightarrow \boxed{A}$

Scratch space:

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

We must share our delicious seaweed snacks equally among the crew. Divide the snacks 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:

$11 \div 11 = \square$

$50 \div 10 = \square$

$15 \div 5 = \square$

$42 \div 6 = \square$

$12 \div 3 = \square$

$2 \div 1 = \square$

$40 \div 4 = \square$

$9 \div 1 = \square$

$132 \div 12 = \square$

$24 \div 3 = \square$

$42 \div 7 = \square$

Step 2 - cross out the sentence with each answer:

1. The villain turns the ocean tide, then points to a magic map.
2. The villain calls a sudden storm, then checks a golden compass.
3. The villain blows a wall of bubbles, then checks a golden compass.
4. The villain blows a wall of bubbles, then waves a silver hook.
5. The villain spins a giant whirlpool, then points to a magic map.
6. The villain talks to the helper fish, then checks a golden compass.
7. The villain blows a wall of bubbles, then polishes an iron cutlass.
8. The villain spins a giant whirlpool, then polishes an iron cutlass.
9. The villain calls a sudden storm, then points to a magic map.
10. The villain spins a giant whirlpool, then waves a silver hook.
11. The villain turns the ocean tide, then looks through a shiny spyglass.
12. The villain calls a sudden storm, then polishes an iron cutlass.

Answer Key

The Case of the Lost Pearl Crown

Culprit: Pearl

stormcaller · iron cutlass · righty splash · blue algae hair · shiny mirrors

Trail: Start 21 → Clue 1 17 → Clue 2 11 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE PIRATE DOES NOT HAVE A SILVER HOOK"

Round 522 to the nearest hundred = 500 (T) · Round 554 to the nearest hundred = 600 (V) · Round 7,329 to the nearest thousand = 7000 (I) · Round 32 to the nearest ten = 30 (O) · Round 5,563 to the nearest thousand = 6000 (D) · Round 722 to the nearest hundred = 700 (E) · Round 46 to the nearest ten = 50 (L) · Round 163 to the nearest hundred = 200 (A) · Round 7,733 to the nearest thousand = 8000 (R) · Round 78 to the nearest ten = 80 (H) · Round 426 to the nearest hundred = 400 (P) · Round 271 to the nearest hundred = 300 (K) · Round 24 to the nearest ten = 20 (N) · Round 8,601 to the nearest thousand = 9000 (S)

Clue 2 (Addition): "THE SPLASH ON THE RIGHT SIDE WAS HUGE"

$124 + 93 = 217$ (T) · $354 + 198 = 552$ (P) · $145 + 138 = 283$ (E) · $224 + 107 = 331$ (D) · $393 + 543 = 936$ (A) · $510 + 379 = 889$ (I) · $312 + 431 = 743$ (H) · $232 + 433 = 665$ (N) · $356 + 198 = 554$ (O) · $354 + 227 = 581$ (W) · $161 + 68 = 229$ (U) · $165 + 121 = 286$ (G) · $398 + 424 = 822$ (R) · $497 + 266 = 763$ (L) · $485 + 276 = 761$ (S)

Clue 3 (Subtraction): "THEY RAN AWAY FROM THE BRIGHT MIRROR"

$718 - 297 = 421$ (T) · $219 - 115 = 104$ (N) · $1240 - 374 = 866$ (I) · $507 - 366 = 141$ (O) · $1148 - 319 = 829$ (M) · $1048 - 330 = 718$ (F) · $425 - 287 = 138$ (G) · $354 - 24 = 330$ (Y) · $253 - 39 = 214$ (W) · $1010 - 179 = 831$ (R) · $508 - 66 = 442$ (B) · $1141 - 343 = 798$ (A) · $1145 - 379 = 766$ (H) · $709 - 209 = 500$ (E)

Clue 4 (Multiplication facts (1-12)): "WE FOUND BLUE ALGAE IN THE SAND"

$2 \times 1 = 2$ (W) · $10 \times 10 = 100$ (L) · $11 \times 12 = 132$ (O) · $9 \times 9 = 81$ (B) · $4 \times 11 = 44$ (N) · $12 \times 7 = 84$ (U) · $3 \times 7 = 21$ (G) · $7 \times 10 = 70$ (T) · $8 \times 8 = 64$ (F) · $8 \times 12 = 96$ (D) · $11 \times 11 = 121$ (E) · $7 \times 4 = 28$ (I) · $4 \times 8 = 32$ (S) · $7 \times 7 = 49$ (H) · $5 \times 11 = 55$ (A)

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

$11 \div 11 = 1$ · $50 \div 10 = 5$ · $15 \div 5 = 3$ · $42 \div 6 = 7$ · $12 \div 3 = 4$ · $2 \div 1 = 2$ · $40 \div 4 = 10$ · $9 \div 1 = 9$ · $132 \div 12 = 11$ · $24 \div 3 = 8$ · $42 \div 7 = 6$