



The Coral Crown Caper

Grade 5 math · Multiplication, Fractions of a number, Order of operations, Rounding, Division · Reading level grades 5-6

Detective: _____ Date: _____

The legendary sea-glass crown has been stolen from the Mermaid Queen's coral throne! A mysterious rogue has slipped away into the reef. We must gather evidence and narrow down the suspects before they escape the Lagoon of Whispers forever.

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 rogue is _____

Possible suspects

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

NAME	PRIMARY SKILL	SPECIAL GEAR	OBSERVED HABIT	SEA HAIR COLOR	VULNERABILITY
Marina	Cannon Firing	Spyglass Map	Left handed	Coral Pink	Shiny Mirrors
Nautilus	Cannon Firing	Steel Cutlass	Left handed	Barnacle Gray	Shiny Mirrors
Redbeard	Ship Steering	Spyglass Map	Left handed	Barnacle Gray	Bright Sunlight
Drake	Cannon Firing	Steel Cutlass	Left handed	Seaweed Green	Shiny Mirrors
Nerida	Cannon Firing	Spyglass Map	Right handed	Seaweed Green	Shiny Mirrors
Wave	Cannon Firing	Spyglass Map	Left handed	Barnacle Gray	Shiny Mirrors
Adella	Ship Steering	Steel Cutlass	Right handed	Barnacle Gray	Bright Sunlight
Gulliver	Sword Fighting	Shell Harp	Left handed	Seaweed Green	Shiny Mirrors
Barnaby	Cannon Firing	Golden Compass	Left handed	Seaweed Green	Shiny Mirrors
Pearl	Ship Steering	Spyglass Map	Left handed	Seaweed Green	Shiny Mirrors
Calypso	Cannon Firing	Pearl Trident	Right handed	Seaweed Green	Loud Singing
Pegleg Pete	Coral Magic	Golden Compass	Left handed	Coral Pink	Bright Sunlight
Kelp	Sword Fighting	Golden Compass	Right handed	Coral Pink	Bright Sunlight
Sirena	Ship Steering	Shell Harp	Left handed	Coral Pink	Bright Sunlight
Morgan	Swift Swimming	Spyglass Map	Left handed	Coral Pink	Loud Singing
Triton	Coral Magic	Pearl Trident	Right handed	Barnacle Gray	Bright Sunlight
Blackbeard	Coral Magic	Pearl Trident	Left handed	Seaweed Green	Shiny Mirrors
Mary Read	Coral Magic	Steel Cutlass	Right handed	Barnacle Gray	Bright Sunlight
Shelly	Sword Fighting	Golden Compass	Left handed	Seaweed Green	Bright Sunlight
Salty Sue	Ship Steering	Spyglass Map	Left handed	Coral Pink	Bright Sunlight
Coralia	Coral Magic	Golden Compass	Right handed	Seaweed Green	Shiny Mirrors

CLUE 1
Multiplication facts (1-12)

The Quartermaster needs to count the gunpowder barrels stacked in equal rows in the cargo hold. Find the total amount to unlock the first clue.

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

T			T												T
16	77	22	16	77	33	22	27	84	121	22	81	6	121	16	
35	48	18	18	42	48	81	77	22	25	25	77	48	18	32	

$8 \times 2 = \square \rightarrow \text{T}$	$11 \times 11 = \square \rightarrow \text{O}$	$7 \times 11 = \square \rightarrow \text{H}$
$7 \times 5 = \square \rightarrow \text{C}$	$11 \times 3 = \square \rightarrow \text{I}$	$9 \times 3 = \square \rightarrow \text{F}$
$11 \times 2 = \square \rightarrow \text{E}$	$4 \times 8 = \square \rightarrow \text{P}$	$7 \times 6 = \square \rightarrow \text{Y}$
$12 \times 4 = \square \rightarrow \text{A}$	$5 \times 5 = \square \rightarrow \text{L}$	$9 \times 9 = \square \rightarrow \text{S}$
$12 \times 7 = \square \rightarrow \text{D}$	$6 \times 1 = \square \rightarrow \text{N}$	$6 \times 3 = \square \rightarrow \text{R}$

Scratch space:

CLUE 2 Fractions of a number

A mermaid pod shares a basket of glowing pearls. We must calculate the exact fraction they took to reveal the suspect's trail.

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

$$2/10 \text{ of } 175 = \boxed{} \rightarrow \boxed{\text{T}}$$

5/10 of 46 = $\rightarrow$ **A**

9/10 of 30 = → **L**

$\frac{1}{4}$ of 20 = $\rightarrow$ **D**

$$\frac{1}{5} \text{ of } 150 = \boxed{} \rightarrow \boxed{\text{N}}$$

$3/6$ of $66 = \boxed{} \rightarrow \boxed{\text{C}}$

$4/8$ of $4 = \boxed{} \rightarrow \boxed{\text{H}}$

5/10 of 26 = → **E**

$$2/3 \text{ of } 21 = \boxed{} \rightarrow \boxed{\text{W}}$$

$$2/4 \text{ of } 30 = \boxed{} \rightarrow \boxed{\text{I}}$$

2/8 of 40 = →

1/6 of 174 = → **F**

$$2/6 \text{ of } 57 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$1/10 \text{ of } 70 = \boxed{} \rightarrow \boxed{\text{R}}$$

Scratch space:

CLUE 3

Order of operations

An old pirate chest has a combination lock. We have to solve the steps in the exact order of operations to crack the code.

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

T																			
29	16	77	9	27	77	76	32	13	77	78	6	34	33	77	11	47	13	6	75
9	16	34	27	7	75	34	13	13	6	13	9								

$17 + 4 \times 3 = \square \rightarrow \boxed{\text{T}}$

$1 + 2 \times 3 = \square \rightarrow \boxed{\text{Y}}$

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

$39 + 2 \times 4 = \square \rightarrow \boxed{\text{F}}$

$12 \times 7 - 9 = \square \rightarrow \boxed{\text{M}}$

$8 \times 5 - 13 = \square \rightarrow \boxed{\text{N}}$

$2 + 3 \times 3 = \square \rightarrow \boxed{\text{D}}$

$3 + 6 \times 5 = \square \rightarrow \boxed{\text{L}}$

$2 \times 10 - 7 = \square \rightarrow \boxed{\text{R}}$

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

$12 \times 7 - 8 = \square \rightarrow \boxed{\text{A}}$

$8 \times 8 - 30 = \square \rightarrow \boxed{\text{I}}$

$10 \times 8 - 2 = \square \rightarrow \boxed{\text{C}}$

$3 \times 7 - 12 = \square \rightarrow \boxed{\text{S}}$

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

$2 + 2 \times 2 = \square \rightarrow \boxed{\text{O}}$

Scratch space:

CLUE 4

Rounding

The ship's navigator can only read the blurry numbers on this ancient map by rounding them to the nearest ten.

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

W															
900	30	300	1700	70	3000	170	130	9000	3700	1300	3000	170	130	1700	300
			W												
130	30	1300	900	30	30	170	90	3700	30	30	3000	200	1300	370	3700

Round 890 to the nearest hundred → **W**

Round 74 to the nearest ten → **U**

Round 187 to the nearest hundred → **H**

Round 3,494 to the nearest thousand → **N**

Round 1,748 to the nearest hundred → **O**

Round 3,677 to the nearest hundred → **R**

Round 173 to the nearest ten → **D**

Round 371 to the nearest ten → **I**

Round 130 to the nearest ten → **S**

Round 89 to the nearest ten → **G**

Round 317 to the nearest hundred → **F**

Round 1,295 to the nearest hundred → **A**

Round 28 to the nearest ten → **E**

Round 9,392 to the nearest thousand → **T**

Scratch space:

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

The crew must divide their salvaged gold coins equally among the sailors. The leftover remainder holds the final secret.

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:

$14 \div 7 = \boxed{}$

$144 \div 12 = \boxed{}$

$20 \div 5 = \boxed{}$

$27 \div 9 = \boxed{}$

$64 \div 8 = \boxed{}$

$49 \div 7 = \boxed{}$

$60 \div 6 = \boxed{}$

$20 \div 4 = \boxed{}$

$60 \div 10 = \boxed{}$

$9 \div 9 = \boxed{}$

$18 \div 2 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain fires a cannon to create a distraction, then points a pearl trident at the guards.
2. The villain uses coral magic to block the path, then points a pearl trident at the guards.
3. The villain swims swiftly through the coral maze, then points a pearl trident at the guards.
4. The villain fires a cannon to create a distraction, then checks a golden compass to navigate.
5. The villain uses coral magic to block the path, then plays a shell harp to soothe the reef.
6. The villain swings a rusty sword to clear a way, then checks a golden compass to navigate.
7. The villain steers the heavy pirate ship away, then plays a shell harp to soothe the reef.
8. The villain steers the heavy pirate ship away, then checks a golden compass to navigate.
9. The villain fires a cannon to create a distraction, then looks through a spyglass map for a route.
10. The villain swims swiftly through the coral maze, then brandishes a steel cutlass at the crew.
11. The villain fires a cannon to create a distraction, then brandishes a steel cutlass at the crew.
12. The villain steers the heavy pirate ship away, then looks through a spyglass map for a route.

Answer Key

The Coral Crown Caper

Culprit: Drake

Cannon Firing · Steel Cutlass · Left handed · Seaweed Green · Shiny Mirrors

Trail: Start 21 → Clue 1 19 → Clue 2 12 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE THIEF DOES NOT CARRY A SHELL HARP"

$8 \times 2 = 16$ (T) · $11 \times 11 = 121$ (O) · $7 \times 11 = 77$ (H) · $7 \times 5 = 35$ (C) · $11 \times 3 = 33$ (I) · $9 \times 3 = 27$ (F) · $11 \times 2 = 22$ (E) · $4 \times 8 = 32$ (P) · $7 \times 6 = 42$ (Y) · $12 \times 4 = 48$ (A) · $5 \times 5 = 25$ (L) · $9 \times 9 = 81$ (S) · $12 \times 7 = 84$ (D) · $6 \times 1 = 6$ (N) · $6 \times 3 = 18$ (R)

Clue 2 (Fractions of a number): "THE SCRAWLED NOTE WAS WRITTEN LEFT HANDED"

$2/10$ of 175 = 35 (T) · $5/10$ of 46 = 23 (A) · $9/10$ of 30 = 27 (L) · $1/4$ of 20 = 5 (D) · $1/5$ of 150 = 30 (N) · $3/6$ of 66 = 33 (C) · $4/8$ of 4 = 2 (H) · $5/10$ of 26 = 13 (E) · $2/3$ of 21 = 14 (W) · $2/4$ of 30 = 15 (I) · $2/8$ of 40 = 10 (O) · $1/6$ of 174 = 29 (F) · $2/6$ of 57 = 19 (S) · $1/10$ of 70 = 7 (R)

Clue 3 (Order of operations): "THE SNEAK RECOILED FROM SHINY MIRRORS"

$17 + 4 \times 3 = 29$ (T) · $1 + 2 \times 3 = 7$ (Y) · $8 \times 3 - 8 = 16$ (H) · $39 + 2 \times 4 = 47$ (F) · $12 \times 7 - 9 = 75$ (M) · $8 \times 5 - 13 = 27$ (N) · $2 + 3 \times 3 = 11$ (D) · $3 + 6 \times 5 = 33$ (L) · $2 \times 10 - 7 = 13$ (R) · $12 \times 7 - 7 = 77$ (E) · $12 \times 7 - 8 = 76$ (A) · $8 \times 8 - 30 = 34$ (I) · $10 \times 8 - 2 = 78$ (C) · $3 \times 7 - 12 = 9$ (S) · $4 \times 9 - 4 = 32$ (K) · $2 + 2 \times 2 = 6$ (O)

Clue 4 (Rounding): "WE FOUND STRANDS OF SEAWEED GREEN HAIR"

Round 890 to the nearest hundred = 900 (W) · Round 74 to the nearest ten = 70 (U) · Round 187 to the nearest hundred = 200 (H) · Round 3,494 to the nearest thousand = 3000 (N) · Round 1,748 to the nearest hundred = 1700 (O) · Round 3,677 to the nearest hundred = 3700 (R) · Round 173 to the nearest ten = 170 (D) · Round 371 to the nearest ten = 370 (I) · Round 130 to the nearest ten = 130 (S) · Round 89 to the nearest ten = 90 (G) · Round 317 to the nearest hundred = 300 (F) · Round 1,295 to the nearest hundred = 1300 (A) · Round 28 to the nearest ten = 30 (E) · Round 9,392 to the nearest thousand = 9000 (T)

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

$14 \div 7 = 2$ · $144 \div 12 = 12$ · $20 \div 5 = 4$ · $27 \div 9 = 3$ · $64 \div 8 = 8$ · $49 \div 7 = 7$ · $60 \div 6 = 10$ · $20 \div 4 = 5$ · $60 \div 10 = 6$ · $9 \div 9 = 1$ · $18 \div 2 = 9$