



The Mystery of the Missing Neptune Crown

Grade 5 math · Fractions of a number, Word problems, Order of operations, Multiplication, Division · Reading level grades 3-4

Detective: _____ Date: _____

Someone snuck into the royal vault and took the ancient Neptune Crown! Search the coral reef for clues and catch 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 Crown Thief is _____

Possible suspects

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

NAME	PEARL MAGIC	SEA COMPANION	FLIPPERS	FIN COLOR	DISLIKE
Nerida	Coral Glow	Seahorse	Left Flipper	Emerald Green Fin	Bright Shells
Coralie	Current Dash	Sea Turtle	Left Flipper	Ruby Red Fin	Loud Whistles
Sandy	Water Shield	Sea Turtle	Left Flipper	Ruby Red Fin	Bright Shells
Maris	Water Shield	Seahorse	Left Flipper	Sapphire Blue Fin	Loud Whistles
Muriel	Wave Blast	Seahorse	Right Flipper	Sapphire Blue Fin	Tickly Kelp
Waverly	Current Dash	Starfish	Right Flipper	Ruby Red Fin	Loud Whistles
Posey	Tide Call	Starfish	Right Flipper	Sapphire Blue Fin	Bright Shells
Tidal	Current Dash	Seahorse	Right Flipper	Sapphire Blue Fin	Loud Whistles
Triton	Coral Glow	Dolphin	Right Flipper	Ruby Red Fin	Loud Whistles
Finneas	Coral Glow	Seahorse	Right Flipper	Emerald Green Fin	Loud Whistles
Delphina	Wave Blast	Sea Turtle	Right Flipper	Ruby Red Fin	Loud Whistles
Azure	Current Dash	Dolphin	Right Flipper	Sapphire Blue Fin	Loud Whistles
Caspian	Coral Glow	Seahorse	Left Flipper	Ruby Red Fin	Tickly Kelp
Kai	Wave Blast	Starfish	Right Flipper	Sapphire Blue Fin	Tickly Kelp
Brook	Coral Glow	Starfish	Right Flipper	Ruby Red Fin	Bright Shells
Pearl	Wave Blast	Seahorse	Right Flipper	Ruby Red Fin	Loud Whistles
Coralina	Coral Glow	Seahorse	Left Flipper	Ruby Red Fin	Loud Whistles
Marina	Water Shield	Manta Ray	Right Flipper	Ruby Red Fin	Tickly Kelp
Cove	Coral Glow	Seahorse	Right Flipper	Ruby Red Fin	Loud Whistles
Shellie	Current Dash	Sea Turtle	Right Flipper	Ruby Red Fin	Bright Shells
Atlantis	Water Shield	Seahorse	Left Flipper	Ruby Red Fin	Tickly Kelp

CLUE 1 Fractions of a number

The Pearl Keeper counted supplies scattered around the royal palace after the breach.

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

A number line from 0 to 100 with boxes for numbers. The boxes are arranged in two rows. The first row contains boxes for 22, 36, 39, 34, 3, 26, 26, 32, 3, 28, 18, 10, 39, 4, 28, 10, and 22. The second row contains boxes for 36, 32, 34, 39, 32, 18, 10, 26, 16, 36, 3, and 28. The boxes for 22 and 39 are highlighted in orange.

5/10 of 44 = → **T**

$1/6$ of 60 = $\rightarrow$ **0**

5/10 of 52 = → **L**

$$\frac{1}{2} \text{ of } 72 = \boxed{} \rightarrow \boxed{\text{H}}$$

5/10 of 6 = → **I**

$3/6$ of $68 = \boxed{} \rightarrow \boxed{\mathbf{V}}$

$$2/6 \text{ of } 96 = \boxed{} \rightarrow \boxed{\mathbf{A}}$$

$\frac{1}{4}$ of 16 = $\rightarrow$ **S**

$3/5$ of 30 = $\rightarrow$ **D**

$\frac{3}{4}$ of 52 = $\rightarrow$ **E**

$$\frac{2}{5} \text{ of } 40 = \boxed{} \rightarrow \boxed{\text{P}}$$

$4/5$ of 35 = $\rightarrow$ **N**

Scratch space:

CLUE 2

Word problems

A sea turtle helper analyzed fractions of the pearl collection left in the treasure vault.

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

A witness saw the villain was

R									P	P	E	R
108	98	10	30	69	117	40	98					108

Royal Guard found 105 coral coins yesterday and 3 more today. How many coral coins in all?

Answer: → **R**

There were 103 glowing pearls. 5 were used up. How many glowing pearls are left?

Answer: → **I**

There were 151 kelp scrolls. 34 were used up. How many kelp scrolls are left?

Answer: → **F**

Royal Guard found 67 glowing pearls yesterday and 2 more today. How many glowing pearls in all?

Answer: → **T**

Royal Guard found 3 shiny shells yesterday and 27 more today. How many shiny shells in all?

Answer: → **H**

There were 45 kelp scrolls. 5 were used up. How many kelp scrolls are left?

Answer: → **L**

There were 35 kelp scrolls. 25 were used up. How many kelp scrolls are left?

Answer: → **G**

Scratch space:

CLUE 3
Order of operations

To unlock the ancient underwater safe, the detective followed steps in a multi-step code.

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

T																	
59	70	51	13	16	68	68	35	16	27	53	68	51	6	53	14	54	22

								T			
68	54	39	6	23	70	16	10	59	68	51	10

$41 + 9 \times 2 = \boxed{} \rightarrow \boxed{\text{T}}$

$2 + 2 \times 6 = \boxed{} \rightarrow \boxed{\text{R}}$

$2 \times 5 - 4 = \boxed{} \rightarrow \boxed{\text{D}}$

$38 + 4 \times 4 = \boxed{} \rightarrow \boxed{\text{O}}$

$5 \times 10 - 27 = \boxed{} \rightarrow \boxed{\text{W}}$

$8 + 9 \times 3 = \boxed{} \rightarrow \boxed{\text{A}}$

$9 + 5 \times 6 = \boxed{} \rightarrow \boxed{\text{U}}$

$8 \times 7 - 3 = \boxed{} \rightarrow \boxed{\text{F}}$

$14 + 6 \times 9 = \boxed{} \rightarrow \boxed{\text{L}}$

$45 + 5 \times 5 = \boxed{} \rightarrow \boxed{\text{H}}$

$33 + 9 \times 2 = \boxed{} \rightarrow \boxed{\text{E}}$

$6 + 3 \times 7 = \boxed{} \rightarrow \boxed{\text{N}}$

$6 + 8 \times 2 = \boxed{} \rightarrow \boxed{\text{M}}$

$6 + 5 \times 2 = \boxed{} \rightarrow \boxed{\text{I}}$

$6 \times 3 - 5 = \boxed{} \rightarrow \boxed{\text{V}}$

$4 + 3 \times 2 = \boxed{} \rightarrow \boxed{\text{S}}$

Scratch space:

CLUE 4
Multiplication facts (1-12)

The guard checked rows of glowing clam shells lined up along the coral reef.

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

F												F			
54	121	45	60	77	90	70	45	110	42	70	32	77	54	108	60
99	55	90	84	32											

$6 \times 9 = \square \rightarrow \text{F}$	$11 \times 11 = \square \rightarrow \text{O}$	$7 \times 12 = \square \rightarrow \text{L}$
$10 \times 6 = \square \rightarrow \text{N}$	$4 \times 8 = \square \rightarrow \text{E}$	$7 \times 11 = \square \rightarrow \text{D}$
$9 \times 12 = \square \rightarrow \text{I}$	$11 \times 9 = \square \rightarrow \text{S}$	$6 \times 7 = \square \rightarrow \text{Y}$
$10 \times 11 = \square \rightarrow \text{B}$	$11 \times 5 = \square \rightarrow \text{C}$	$5 \times 9 = \square \rightarrow \text{U}$
$10 \times 9 = \square \rightarrow \text{A}$	$7 \times 10 = \square \rightarrow \text{R}$	

Scratch space:

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

The royal guards split the remaining sea glass tokens evenly among the patrols.

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:

$90 \div 10 = \boxed{}$

$6 \div 3 = \boxed{}$

$132 \div 11 = \boxed{}$

$132 \div 12 = \boxed{}$

$90 \div 9 = \boxed{}$

$6 \div 1 = \boxed{}$

$96 \div 12 = \boxed{}$

$42 \div 6 = \boxed{}$

$10 \div 2 = \boxed{}$

$6 \div 2 = \boxed{}$

$7 \div 7 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain blasted waves across the reef, then escaped alongside a dolphin.
2. The villain lit up the coral glow, then hitched a ride with a seahorse.
3. The villain called upon the ocean tide, then hitched a ride with a seahorse.
4. The villain blasted waves across the reef, then swam away with a sea turtle.
5. The villain raised a water shield, then hitched a ride with a seahorse.
6. The villain lit up the coral glow, then snuck away with a starfish.
7. The villain lit up the coral glow, then glided off with a manta ray.
8. The villain called upon the ocean tide, then escaped alongside a dolphin.
9. The villain blasted waves across the reef, then hitched a ride with a seahorse.
10. The villain called upon the ocean tide, then swam away with a sea turtle.
11. The villain dashed through swift currents, then swam away with a sea turtle.
12. The villain dashed through swift currents, then snuck away with a starfish.

Answer Key

The Mystery of the Missing Neptune Crown

Culprit: Delphina

Wave Blast · Sea Turtle · Right Flipper · Ruby Red Fin · Loud Whistles

Trail: Start 21 → Clue 1 19 → Clue 2 12 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Fractions of a number): "THE VILLAIN DOES NOT HAVE A DOLPHIN"

$5/10$ of 44 = 22 (T) · $1/6$ of 60 = 10 (O) · $5/10$ of 52 = 26 (L) · $1/2$ of 72 = 36 (H) · $5/10$ of 6 = 3 (I) · $3/6$ of 68 = 34 (V) · $2/6$ of 96 = 32 (A) · $1/4$ of 16 = 4 (S) · $3/5$ of 30 = 18 (D) · $3/4$ of 52 = 39 (E) · $2/5$ of 40 = 16 (P) · $4/5$ of 35 = 28 (N)

Clue 2 (Word problems): "RIGHT FLIPPER"

Royal Guard found 105 coral coins yesterday and 3 more today. How many coral coins in all? = 108 (R) · There were 103 glowing pearls. 5 were used up. How many glowing pearls are left? = 98 (I) · There were 151 kelp scrolls. 34 were used up. How many kelp scrolls are left? = 117 (F) · Royal Guard found 67 glowing pearls yesterday and 2 more today. How many glowing pearls in all? = 69 (T) · Royal Guard found 3 shiny shells yesterday and 27 more today. How many shiny shells in all? = 30 (H) · There were 45 kelp scrolls. 5 were used up. How many kelp scrolls are left? = 40 (L) · There were 35 kelp scrolls. 25 were used up. How many kelp scrolls are left? = 10 (G)

Clue 3 (Order of operations): "THE VILLAIN FLED FROM LOUD WHISTLES"

$41 + 9 \times 2 = 59$ (T) · $2 + 2 \times 6 = 14$ (R) · $2 \times 5 - 4 = 6$ (D) · $38 + 4 \times 4 = 54$ (O) · $5 \times 10 - 27 = 23$ (W) · $8 + 9 \times 3 = 35$ (A) · $9 + 5 \times 6 = 39$ (U) · $8 \times 7 - 3 = 53$ (F) · $14 + 6 \times 9 = 68$ (L) · $45 + 5 \times 5 = 70$ (H) · $33 + 9 \times 2 = 51$ (E) · $6 + 3 \times 7 = 27$ (N) · $6 + 8 \times 2 = 22$ (M) · $6 + 5 \times 2 = 16$ (I) · $6 \times 3 - 5 = 13$ (V) · $4 + 3 \times 2 = 10$ (S)

Clue 4 (Multiplication facts (1-12)): "FOUND A RUBY RED FIN SCALE"

$6 \times 9 = 54$ (F) · $11 \times 11 = 121$ (O) · $7 \times 12 = 84$ (L) · $10 \times 6 = 60$ (N) · $4 \times 8 = 32$ (E) · $7 \times 11 = 77$ (D) · $9 \times 12 = 108$ (I) · $11 \times 9 = 99$ (S) · $6 \times 7 = 42$ (Y) · $10 \times 11 = 110$ (B) · $11 \times 5 = 55$ (C) · $5 \times 9 = 45$ (U) · $10 \times 9 = 90$ (A) · $7 \times 10 = 70$ (R)

Clue 5 (Division facts (1-12)): surviving statement is box 4 → Delphina

$90 \div 10 = 9$ · $6 \div 3 = 2$ · $132 \div 11 = 12$ · $132 \div 12 = 11$ · $90 \div 9 = 10$ · $6 \div 1 = 6$ · $96 \div 12 = 8$ · $42 \div 6 = 7$ · $10 \div 2 = 5$ · $6 \div 2 = 3$ · $7 \div 7 = 1$