The Case of the Sunken Block Pearl

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

Detective: _____ **Date:** _____

A sneaky pirate cat snuck into the underwater crystal cave and swiped the Glowing Pearl! Help the mermaid guards decode the evidence to 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 scallywag cat pirate is _____

Possible suspects

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

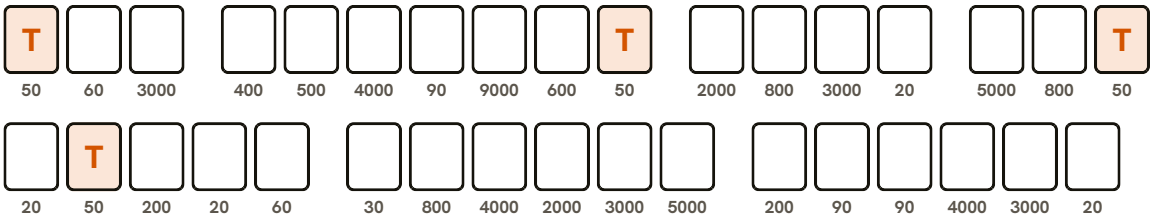
NAME	SPECIAL GEAR	LOOT STASH	WHISKERS PATTERN	BANDANA COLOR	CAT FEAR
Calico Anne	Fishing Rod	Glowing Redstone	Left Whisker Twitch	Jungle Green	Cucumber Slices
Captain Claw	Coral Trident	Glowing Redstone	Right Whisker Twitch	Jungle Green	Dog Barking
Seaweed Sam	Golden Pickaxe	Emerald Blocks	Left Whisker Twitch	Crimson Red	Cucumber Slices
Barnacle Bob	Prismarine Shield	Prismarine Shards	Right Whisker Twitch	Crimson Red	Cucumber Slices
Sir Paws-a-Lot	Diamond Sword	Prismarine Shards	Left Whisker Twitch	Ocean Blue	Cucumber Slices
Anchors Aweigh Arthur	Fishing Rod	Glowing Redstone	Left Whisker Twitch	Ocean Blue	Water Splashes
Patchy Tail	Coral Trident	Glowing Redstone	Right Whisker Twitch	Ocean Blue	Water Splashes
Coral Pearl	Prismarine Shield	Golden Apples	Right Whisker Twitch	Crimson Red	Dog Barking
Admiral Purr	Fishing Rod	Golden Apples	Left Whisker Twitch	Crimson Red	Cucumber Slices
Pearl Diver Penny	Coral Trident	Golden Apples	Left Whisker Twitch	Jungle Green	Dog Barking
Skipper Felix	Diamond Sword	Prismarine Shards	Left Whisker Twitch	Crimson Red	Water Splashes
Misty Scales	Fishing Rod	Prismarine Shards	Left Whisker Twitch	Crimson Red	Cucumber Slices
Bubbles McGee	Prismarine Shield	Emerald Blocks	Left Whisker Twitch	Ocean Blue	Cucumber Slices
Scupper Jack	Diamond Sword	Tropical Fish	Right Whisker Twitch	Jungle Green	Water Splashes
Nautilus Nick	Prismarine Shield	Glowing Redstone	Left Whisker Twitch	Crimson Red	Water Splashes
Coral Sea-Tail	Diamond Sword	Tropical Fish	Left Whisker Twitch	Crimson Red	Cucumber Slices
First Mate Mittens	Coral Trident	Emerald Blocks	Left Whisker Twitch	Crimson Red	Water Splashes
Salty Whiskers	Golden Pickaxe	Golden Apples	Right Whisker Twitch	Crimson Red	Water Splashes
Barnaby Swash	Coral Trident	Glowing Redstone	Left Whisker Twitch	Crimson Red	Cucumber Slices
Captain Tom	Coral Trident	Golden Apples	Left Whisker Twitch	Jungle Green	Water Splashes
Swashbuckler Tabby	Diamond Sword	Tropical Fish	Right Whisker Twitch	Crimson Red	Cucumber Slices

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CLUE 1 Rounding

> The sonar device at the dock only shows approximate distance numbers. Solve the math to reveal the first suspect clue!

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



Round 48 to the nearest ten ☐ → **T**

Round 4,856 to the nearest thousand ☐ → **N**

Round 213 to the nearest hundred ☐ → **A**

Round 3,119 to the nearest thousand ☐ → **E**

Round 584 to the nearest hundred ☐ → **I**

Round 832 to the nearest hundred ☐ → **O**

Round 9,016 to the nearest thousand ☐ → **R**

Round 33 to the nearest ten ☐ → **G**

Round 18 to the nearest ten ☐ → **S**

Round 549 to the nearest hundred ☐ → **U**

Round 368 to the nearest hundred ☐ → **C**

Round 4,344 to the nearest thousand ☐ → **L**

Round 64 to the nearest ten ☐ → **H**

Round 92 to the nearest ten ☐ → **P**

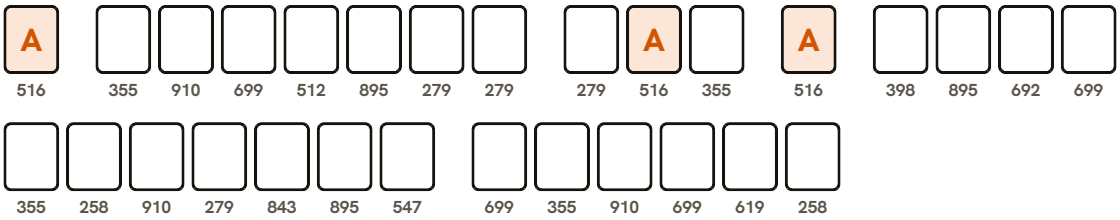
Round 1,524 to the nearest thousand ☐ → **D**

Scratch space:

CLUE 2 Addition

> The mermaid guard tallied up the shiny shell fragments left near the vault. Add the totals to uncover the next hint.

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



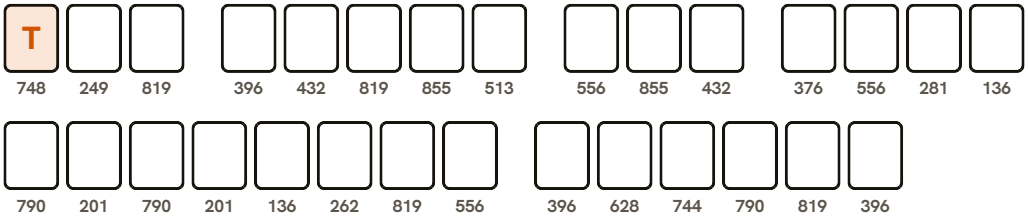
346 + 170 = ☐ → A	471 + 424 = ☐ → E	316 + 303 = ☐ → C
270 + 573 = ☐ → K	244 + 448 = ☐ → F	203 + 195 = ☐ → L
455 + 244 = ☐ → T	197 + 158 = ☐ → W	132 + 126 = ☐ → H
212 + 335 = ☐ → R	300 + 212 = ☐ → N	106 + 173 = ☐ → S
356 + 554 = ☐ → I		

Scratch space:

CLUE 3 Subtraction

Some stolen fish were dropped on the trail. Subtract the missing count to figure out the trail lead.

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



816 - 68 = ☐ → T

596 - 347 = ☐ → H

604 - 91 = ☐ → K

577 - 21 = ☐ → R

980 - 125 = ☐ → A

542 - 110 = ☐ → N

536 - 255 = ☐ → O

642 - 266 = ☐ → F

991 - 247 = ☐ → I

975 - 347 = ☐ → L

351 - 215 = ☐ → M

561 - 165 = ☐ → S

834 - 44 = ☐ → C

344 - 143 = ☐ → U

492 - 230 = ☐ → B

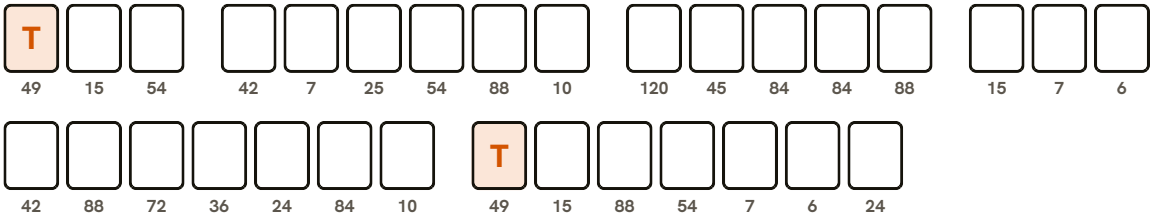
882 - 63 = ☐ → E

Scratch space:

CLUE 4 Multiplication facts (1-12)

The pirate crew arranged craft blocks in equal rows on the deck. Multiply to find the secret pattern!

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



7 × 7 = ☐ → T

11 × 8 = ☐ → R

2 × 3 = ☐ → D

9 × 4 = ☐ → M

7 × 12 = ☐ → O

6 × 7 = ☐ → C

8 × 9 = ☐ → I

5 × 9 = ☐ → L

10 × 1 = ☐ → N

12 × 10 = ☐ → F

5 × 3 = ☐ → H

5 × 5 = ☐ → V

7 × 1 = ☐ → A

6 × 4 = ☐ → S

6 × 9 = ☐ → E

Scratch space:

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

> The guard divided the leftover pearls equally among the rescue buckets. Solve the division puzzle to finish the investigation!

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:

22 ÷ 11 = ☐ | 48 ÷ 12 = ☐ | 11 ÷ 11 = ☐ | 90 ÷ 9 = ☐ | 66 ÷ 6 = ☐

60 ÷ 12 = ☐ | 15 ÷ 5 = ☐ | 48 ÷ 6 = ☐ | 81 ÷ 9 = ☐ | 66 ÷ 11 = ☐

84 ÷ 12 = ☐

Step 2 - cross out the sentence with each answer:

1. The villain cast a fishing rod, then grabbed prismarine shards.
2. The villain swung a golden pickaxe, then scooped up emerald blocks.
3. The villain swung a diamond sword, then snatched golden apples.
4. The villain threw a coral trident, then pocketed glowing redstone.
5. The villain raised a prismarine shield, then snatched golden apples.
6. The villain swung a diamond sword, then scooped up emerald blocks.
7. The villain raised a prismarine shield, then pocketed glowing redstone.
8. The villain swung a golden pickaxe, then pocketed glowing redstone.
9. The villain swung a golden pickaxe, then grabbed prismarine shards.
10. The villain cast a fishing rod, then swiped tropical fish.
11. The villain cast a fishing rod, then scooped up emerald blocks.
12. The villain swung a diamond sword, then swiped tropical fish.

TEACHER / PARENT

Answer Key

The Case of the Sunken Block Pearl

Culprit: Coral Sea-Tail

Diamond Sword · Tropical Fish · Left Whisker Twitch · Crimson Red · Cucumber Slices

Trail: Start 21 → Clue 1 16 → Clue 2 11 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE CULPRIT DOES NOT STASH GOLDEN APPLES"

Round 48 to the nearest ten = 50 (T) · Round 4,856 to the nearest thousand = 5000 (N) · Round 213 to the nearest hundred = 200 (A) · Round 3,119 to the nearest thousand = 3000 (E) · Round 584 to the nearest hundred = 600 (I) · Round 832 to the nearest hundred = 800 (O) · Round 9,016 to the nearest thousand = 9000 (R) · Round 33 to the nearest ten = 30 (G) · Round 18 to the nearest ten = 20 (S) · Round 549 to the nearest hundred = 500 (U) · Round 368 to the nearest hundred = 400 (C) · Round 4,344 to the nearest thousand = 4000 (L) · Round 64 to the nearest ten = 60 (H) · Round 92 to the nearest ten = 90 (P) · Round 1,524 to the nearest thousand = 2000 (D)

Clue 2 (Addition): "A WITNESS SAW A LEFT WHISKER TWITCH"

346 + 170 = 516 (A) · 471 + 424 = 895 (E) · 316 + 303 = 619 (C) · 270 + 573 = 843 (K) · 244 + 448 = 692 (F) · 203 + 195 = 398 (L) · 455 + 244 = 699 (T) · 197 + 158 = 355 (W) · 132 + 126 = 258 (H) · 212 + 335 = 547 (R) · 300 + 212 = 512 (N) · 106 + 173 = 279 (S) · 356 + 554 = 910 (I)

Clue 3 (Subtraction): "THE SNEAK RAN FROM CUCUMBER SLICES"

816 - 68 = 748 (T) · 596 - 347 = 249 (H) · 604 - 91 = 513 (K) · 577 - 21 = 556 (R) · 980 - 125 = 855 (A) · 542 - 110 = 432 (N) · 536 - 255 = 281 (O) · 642 - 266 = 376 (F) · 991 - 247 = 744 (I) · 975 - 347 = 628 (L) · 351 - 215 = 136 (M) · 561 - 165 = 396 (S) · 834 - 44 = 790 (C) · 344 - 143 = 201 (U) · 492 - 230 = 262 (B) · 882 - 63 = 819 (E)

Clue 4 (Multiplication facts (1-12)): "THE CAVERN FLOOR HAD CRIMSON THREADS"

7 × 7 = 49 (T) · 11 × 8 = 88 (R) · 2 × 3 = 6 (D) · 9 × 4 = 36 (M) · 7 × 12 = 84 (O) · 6 × 7 = 42 (C) · 8 × 9 = 72 (I) · 5 × 9 = 45 (L) · 10 × 1 = 10 (N) · 12 × 10 = 120 (F) · 5 × 3 = 15 (H) · 5 × 5 = 25 (V) · 7 × 1 = 7 (A) · 6 × 4 = 24 (S) · 6 × 9 = 54 (E)

Clue 5 (Division facts (1-12)): surviving statement is box 12 → Coral Sea-Tail

22 ÷ 11 = 2 · 48 ÷ 12 = 4 · 11 ÷ 11 = 1 · 90 ÷ 9 = 10 · 66 ÷ 6 = 11 · 60 ÷ 12 = 5 · 15 ÷ 5 = 3 · 48 ÷ 6 = 8 · 81 ÷ 9 = 9 · 66 ÷ 11 = 6 · 84 ÷ 12 = 7