



The Coconut Island Mystery

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

Detective: _____ Date: _____

The grand Golden Pineapple Trophy has vanished from the Island Club treehouse! The Island Club President needs your help. Solve the math puzzles to track down the mischievous thief before the big beach feast tonight.

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 mischievous thief is _____

Possible suspects

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

NAME	ADVENTURE SKILL	FAVORITE GEAR	WRITING HAND	HAIR COLOR	BIGGEST FEAR
Sam	slingshot expert	waterproof walkie-talkie	right-handed writer	bright red hair	scared of spiders
Chloe	master climber	waterproof walkie-talkie	left-handed writer	dark brown hair	scared of spiders
Lily	slingshot expert	high-bounce boots	left-handed writer	bright red hair	hates muddy shoes
Ella	grappling hook thrower	glow-in-the-dark compass	right-handed writer	bright red hair	allergic to pollen
Owen	master climber	glow-in-the-dark compass	right-handed writer	golden blonde hair	allergic to pollen
Cole	master climber	all-terrain skateboard	left-handed writer	bright red hair	scared of spiders
Mason	speedy decoder	waterproof walkie-talkie	right-handed writer	dark brown hair	scared of spiders
Jack	slingshot expert	all-terrain skateboard	right-handed writer	bright red hair	allergic to pollen
Zoe	speedy decoder	all-terrain skateboard	right-handed writer	bright red hair	scared of spiders
Toby	grappling hook thrower	super-zoom binoculars	right-handed writer	bright red hair	hates muddy shoes
Maya	speedy decoder	glow-in-the-dark compass	right-handed writer	bright red hair	allergic to pollen
Luke	expert trail marker	high-bounce boots	left-handed writer	golden blonde hair	allergic to pollen
Finn	grappling hook thrower	waterproof walkie-talkie	right-handed writer	bright red hair	scared of spiders
Sophie	master climber	high-bounce boots	right-handed writer	bright red hair	scared of spiders
Noah	slingshot expert	waterproof walkie-talkie	right-handed writer	bright red hair	allergic to pollen
Ruby	expert trail marker	high-bounce boots	left-handed writer	bright red hair	hates muddy shoes
Leo	slingshot expert	glow-in-the-dark compass	left-handed writer	bright red hair	hates muddy shoes
Lucy	master climber	all-terrain skateboard	left-handed writer	golden blonde hair	allergic to pollen
Grace	slingshot expert	all-terrain skateboard	left-handed writer	golden blonde hair	hates muddy shoes
Ava	expert trail marker	glow-in-the-dark compass	right-handed writer	golden blonde hair	scared of spiders
Emma	speedy decoder	super-zoom binoculars	right-handed writer	bright red hair	scared of spiders

CLUE 1

The spy team counted the walkie-talkies. We started with many but some are missing now. Subtract the stolen ones to find our clue.

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

Diagram showing the arrangement of 16 boxes in two rows. The top row has 13 boxes, and the bottom row has 13 boxes. The boxes are labeled with numbers: 4630, 2358, 4316, 3533, 5470, 3745, 1641, 1915, 4630, 1641, 3727, 4316, 3814, 3745, 3727, 4630. The boxes with the number 4630 are highlighted in orange and labeled 'T'.

$$5822 - 1192 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$6646 - 2919 = \boxed{} \rightarrow \boxed{0}$$

$$10712 - 4864 = \boxed{} \rightarrow \boxed{\text{U}}$$

$$7441 - 1971 = \boxed{} \rightarrow \boxed{\text{A}}$$

$$4769 - 2411 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$5781 - 2036 = \boxed{} \rightarrow \boxed{\text{N}}$$

$$8224 - 2543 = \boxed{} \rightarrow \boxed{\text{R}}$$

$$8941 - 1025 = \boxed{} \rightarrow \boxed{\text{G}}$$

$$4769 - 637 = \boxed{} \rightarrow \boxed{\text{W}}$$

$$8439 - 4625 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$6314 - 1998 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$5687 - 4046 = \boxed{} \rightarrow \boxed{\text{D}}$$

$10020 - 4900 = \boxed{} \rightarrow \boxed{\text{C}}$

$$3702 - 1787 = \boxed{} \rightarrow \boxed{\text{I}}$$

$$7406 - 3873 = \boxed{} \rightarrow \boxed{\mathbf{B}}$$

Scratch space:

CLUE 2

Rounding

The jungle radar is old. It only shows distances rounded to the nearest ten. Round the signal number to unlock the next file.

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

W				W												
1700	3000	7000	2300	1700	430	700	3000	130	290	1300	1300	2300	290	200		
W					W											
1700	3700	290	430	3000	1700	290	430	700	2300	3700	290	370	700	430	700	2300

Round 1,672 to the nearest hundred → **W**

Round 431 to the nearest ten → **T**

Round 2,325 to the nearest hundred → **A**

Round 1,313 to the nearest hundred → **L**

Round 3,286 to the nearest thousand → **E**

Round 193 to the nearest hundred → **N**

Round 370 to the nearest ten → **G**

Round 131 to the nearest ten → **V**

Round 3,683 to the nearest hundred → **R**

Round 7,170 to the nearest thousand → **S**

Round 292 to the nearest ten → **I**

Round 168 to the nearest ten → **D**

Round 687 to the nearest hundred → **H**

Scratch space:

CLUE 3 Addition

We found gold coins dropped along the beach trail. Add the coins from the sand and the grass to get the total number.

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

T			T														
2099	3144	4317	2099	3144	7245	4317	3409	2933	5947	4251	5947	2727	5947	2986	3409	2933	3736
	T																
5947	2099	7245	4251	2986	2606	6646	7245	8656	4317	2933							

1231 + 868 = → T	1175 + 1552 = → W	2767 + 1484 = → N
2007 + 979 = → Y	1438 + 1706 = → H	1723 + 1210 = → R
4983 + 2262 = → I	5986 + 2670 = → D	2349 + 1060 = → F
3170 + 6169 = → M	2613 + 1704 = → E	2388 + 1348 = → O
1749 + 857 = → S	3409 + 2538 = → A	3780 + 2866 = → P

Scratch space:

CLUE 4
Multiplication facts (1-12)

The ancient stone door has rows of matching carvings. Multiply the rows by the columns to press the right tiles.

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

A				A									A				A	
108	14	44	81	108	54	121	8	33	81	72	121	36	108	120	81	11	108	14
									A									
8	54	44	36	72	45	81	108	54	96	36								

$9 \times 12 = \square \rightarrow$ A	$9 \times 9 = \square \rightarrow$ R	$6 \times 6 = \square \rightarrow$ H	$9 \times 8 = \square \rightarrow$ E
$8 \times 12 = \square \rightarrow$ C	$2 \times 7 = \square \rightarrow$ S	$10 \times 12 = \square \rightarrow$ I	
$11 \times 11 = \square \rightarrow$ D	$3 \times 11 = \square \rightarrow$ F	$9 \times 5 = \square \rightarrow$ B	
$6 \times 9 = \square \rightarrow$ N	$2 \times 4 = \square \rightarrow$ O	$11 \times 1 = \square \rightarrow$ W	
$11 \times 4 = \square \rightarrow$ T			

Scratch space:

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

We need to share our juice boxes equally among the search teams. Divide the total boxes to find each team's 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:

$42 \div 7 = \boxed{}$

$24 \div 2 = \boxed{}$

$20 \div 4 = \boxed{}$

$81 \div 9 = \boxed{}$

$63 \div 9 = \boxed{}$

$110 \div 10 = \boxed{}$

$100 \div 10 = \boxed{}$

$20 \div 5 = \boxed{}$

$80 \div 10 = \boxed{}$

$4 \div 2 = \boxed{}$

$15 \div 5 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain grabbed the secret island map, then zipped down the muddy jungle trail.
2. The villain stole the shiny compass medal, then scooted across the rickety wooden bridge.
3. The villain pocketed the ancient brass key, then zipped down the muddy jungle trail.
4. The villain took the legendary crystal skull, then zipped down the muddy jungle trail.
5. The villain pocketed the ancient brass key, then dashed away through the banana trees.
6. The villain snatched the golden pineapple trophy, then dashed away through the banana trees.
7. The villain snatched the golden pineapple trophy, then scooted across the rickety wooden bridge.
8. The villain stole the shiny compass medal, then zipped down the muddy jungle trail.
9. The villain pocketed the ancient brass key, then escaped in a yellow rubber raft.
10. The villain snatched the golden pineapple trophy, then escaped in a yellow rubber raft.
11. The villain grabbed the secret island map, then escaped in a yellow rubber raft.
12. The villain grabbed the secret island map, then scooted across the rickety wooden bridge.

Answer Key

The Coconut Island Mystery

Culprit: Emma

speedy decoder · super-zoom binoculars · right-handed writer · bright red hair · scared of spiders

Trail: Start 21 → Clue 1 17 → Clue 2 12 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Subtraction): "THE BANDIT DOES NOT WEAR HIGH BOUNCE BOOTS"

5822 - 1192 = 4630 (T) · 6646 - 2919 = 3727 (O) · 10712 - 4864 = 5848 (U) · 7441 - 1971 = 5470 (A) · 4769 - 2411 = 2358 (H) · 5781 - 2036 = 3745 (N) · 8224 - 2543 = 5681 (R) · 8941 - 1025 = 7916 (G) · 4769 - 637 = 4132 (W) · 8439 - 4625 = 3814 (S) · 6314 - 1998 = 4316 (E) · 5687 - 4046 = 1641 (D) · 10020 - 4900 = 5120 (C) · 3702 - 1787 = 1915 (I) · 7406 - 3873 = 3533 (B)

Clue 2 (Rounding): "WE SAW THE VILLAIN WRITE WITH A RIGHT HAND"

Round 1,672 to the nearest hundred = 1700 (W) · Round 431 to the nearest ten = 430 (T) · Round 2,325 to the nearest hundred = 2300 (A) · Round 1,313 to the nearest hundred = 1300 (L) · Round 3,286 to the nearest thousand = 3000 (E) · Round 193 to the nearest hundred = 200 (N) · Round 370 to the nearest ten = 370 (G) · Round 131 to the nearest ten = 130 (V) · Round 3,683 to the nearest hundred = 3700 (R) · Round 7,170 to the nearest thousand = 7000 (S) · Round 292 to the nearest ten = 290 (I) · Round 168 to the nearest ten = 170 (D) · Round 687 to the nearest hundred = 700 (H)

Clue 3 (Addition): "THE THIEF RAN AWAY FROM A TINY SPIDER"

1231 + 868 = 2099 (T) · 1175 + 1552 = 2727 (W) · 2767 + 1484 = 4251 (N) · 2007 + 979 = 2986 (Y) · 1438 + 1706 = 3144 (H) · 1723 + 1210 = 2933 (R) · 4983 + 2262 = 7245 (I) · 5986 + 2670 = 8656 (D) · 2349 + 1060 = 3409 (F) · 3170 + 6169 = 9339 (M) · 2613 + 1704 = 4317 (E) · 2388 + 1348 = 3736 (O) · 1749 + 857 = 2606 (S) · 3409 + 2538 = 5947 (A) · 3780 + 2866 = 6646 (P)

Clue 4 (Multiplication facts (1-12)): "A STRAND OF RED HAIR WAS ON THE BRANCH"

$9 \times 12 = 108$ (A) · $9 \times 9 = 81$ (R) · $6 \times 6 = 36$ (H) · $9 \times 8 = 72$ (E) · $8 \times 12 = 96$ (C) · $2 \times 7 = 14$ (S) · $10 \times 12 = 120$ (I) · $11 \times 11 = 121$ (D) · $3 \times 11 = 33$ (F) · $9 \times 5 = 45$ (B) · $6 \times 9 = 54$ (N) · $2 \times 4 = 8$ (O) · $11 \times 1 = 11$ (W) · $11 \times 4 = 44$ (T)

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

$42 \div 7 = 6$ · $24 \div 2 = 12$ · $20 \div 4 = 5$ · $81 \div 9 = 9$ · $63 \div 9 = 7$ · $110 \div 10 = 11$ · $100 \div 10 = 10$ · $20 \div 5 = 4$ · $80 \div 10 = 8$ · $4 \div 2 = 2$ · $15 \div 5 = 3$