



The Golden Pineapple Mystery

Grade 4 math · Multiplication, Addition, Rounding, Subtraction, Division · Reading level grades 1-2

Detective: _____ Date: _____

Oh no! Someone took the Golden Pineapple from the Island Chief. We need to find the rogue explorer who did it before the big island feast!

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 explorer is _____

Possible suspects

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

NAME	EXPLORER TOOL	ISLAND BADGE	WRITING HAND	CAP COLOR	SILLY FEAR
Roy	Pocket Binoculars	Sun Badge	Right-handed	Blue Cap	Scared of Mud
Rex	Spy Camera	Tree Badge	Right-handed	Green Cap	Scared of Mud
Joy	Super Compass	Sun Badge	Left-handed	Red Cap	Scared of Frogs
Amy	Pocket Binoculars	Cloud Badge	Right-handed	Green Cap	Scared of Bugs
Jack	Super Compass	Cloud Badge	Right-handed	Blue Cap	Scared of Bugs
Max	Spy Camera	Shell Badge	Left-handed	Blue Cap	Scared of Mud
Luke	Laser Flashlight	Shell Badge	Right-handed	Green Cap	Scared of Mud
Zoe	Super Compass	Tree Badge	Left-handed	Red Cap	Scared of Frogs
Ruby	Super Compass	Shell Badge	Right-handed	Green Cap	Scared of Mud
Finn	Laser Flashlight	Sun Badge	Right-handed	Red Cap	Scared of Bugs
Lily	Super Compass	Tree Badge	Left-handed	Green Cap	Scared of Mud
Otis	Spy Camera	Cloud Badge	Left-handed	Red Cap	Scared of Bugs
Sam	Super Compass	Wave Badge	Right-handed	Green Cap	Scared of Mud
Toby	Grappling Hook	Shell Badge	Left-handed	Red Cap	Scared of Frogs
Cora	Super Compass	Shell Badge	Right-handed	Blue Cap	Scared of Bugs
Rose	Laser Flashlight	Wave Badge	Left-handed	Red Cap	Scared of Bugs
Ben	Super Compass	Tree Badge	Right-handed	Red Cap	Scared of Frogs
Hugo	Laser Flashlight	Tree Badge	Right-handed	Blue Cap	Scared of Mud
Eli	Pocket Binoculars	Cloud Badge	Right-handed	Red Cap	Scared of Frogs
Emma	Grappling Hook	Shell Badge	Right-handed	Green Cap	Scared of Mud
Leo	Grappling Hook	Tree Badge	Right-handed	Green Cap	Scared of Bugs

CLUE 1
Multiplication facts (1-12)

We find a box of secret gears. They are in neat rows. We count the rows to see how many gears are inside.

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

T																T
72	14	42	81	108	48	48	77	108	66	10	40	42	21	66	40	72
				T												
14	77	81	42	72	14	42	63	77	81	42	88	77	10	121	42	

$6 \times 12 = \square \rightarrow \text{T}$

$6 \times 7 = \square \rightarrow \text{E}$

$6 \times 8 = \square \rightarrow \text{L}$

$2 \times 7 = \square \rightarrow \text{H}$

$7 \times 11 = \square \rightarrow \text{A}$

$9 \times 9 = \square \rightarrow \text{V}$

$1 \times 10 = \square \rightarrow \text{D}$

$9 \times 7 = \square \rightarrow \text{W}$

$11 \times 11 = \square \rightarrow \text{G}$

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

$9 \times 12 = \square \rightarrow \text{I}$

$8 \times 11 = \square \rightarrow \text{B}$

$6 \times 11 = \square \rightarrow \text{N}$

$10 \times 4 = \square \rightarrow \text{O}$

Scratch space:

CLUE 2 Addition

We need to pack our supply bags. We count the apples and bananas. We add them up to find the total.

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

T 6716	7829	7386	9488	8152	T 6716	7386	5007	9443	7386	5121	7386	9443	5121	6020	T 6716	T 6716	7386	9488
9443	6020	T 6716	7829	T 6716	7829	7386	5121	6020	5089	7829	T 6716	7829	6368	9488	3660			

$2124 + 4592 = \boxed{} \rightarrow \boxed{T}$

$2747 + 2374 = \boxed{} \rightarrow \boxed{R}$

$2995 + 2094 = \boxed{} \rightarrow \boxed{G}$

$5027 + 4461 = \boxed{} \rightarrow \boxed{N}$

$4506 + 3646 = \boxed{} \rightarrow \boxed{O}$

$3494 + 2874 = \boxed{} \rightarrow \boxed{A}$

$2317 + 2690 = \boxed{} \rightarrow \boxed{S}$

$2275 + 3745 = \boxed{} \rightarrow \boxed{I}$

$5136 + 2250 = \boxed{} \rightarrow \boxed{E}$

$1197 + 2463 = \boxed{} \rightarrow \boxed{D}$

$6221 + 3222 = \boxed{} \rightarrow \boxed{W}$

$3901 + 3928 = \boxed{} \rightarrow \boxed{H}$

Scratch space:

CLUE 3 Rounding

Our spy radar screen is blurry. It only shows rounded numbers. We must round the distance to read it.

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

T																		T	
5000	70	370	1300	170	700	700	20	170	110	900	20	110	20	430	20	2900	5000	1700	

30	370	370	290	20	430	20	2900	90	900	1700	50	50	7000	2300				

Round 4,922 to the nearest thousand → **T**

Round 47 to the nearest ten → **M**

Round 1,714 to the nearest hundred → **O**

Round 23 to the nearest ten → **A**

Round 430 to the nearest ten → **W**

Round 107 to the nearest ten → **N**

Round 290 to the nearest ten → **P**

Round 366 to the nearest ten → **E**

Round 936 to the nearest hundred → **R**

Round 6,774 to the nearest thousand → **U**

Round 2,318 to the nearest hundred → **D**

Round 30 to the nearest ten → **K**

Round 676 to the nearest hundred → **L**

Round 2,912 to the nearest hundred → **Y**

Round 89 to the nearest ten → **F**

Round 1,293 to the nearest hundred → **V**

Round 170 to the nearest ten → **I**

Round 70 to the nearest ten → **H**

Scratch space:

CLUE 4
Subtraction

We had many juice boxes. We drank some on the trail. We subtract to see how many juice boxes are left.

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

A							A					
6986	7662	8091	1081	1081	6334	8530	6986	4403	1176	8091	8133	5372

			A																
1183	8530	8091	6986	4403	1081	5957	2973	3373	1081	1714	1637	1838	8530	1081	8133	1714	8133	6334	7662

$7245 - 259 = \square \rightarrow \text{A}$

$8335 - 2963 = \square \rightarrow \text{M}$

$8346 - 255 = \square \rightarrow \text{R}$

$5439 - 3802 = \square \rightarrow \text{O}$

$4672 - 269 = \square \rightarrow \text{P}$

$9010 - 1348 = \square \rightarrow \text{G}$

$6683 - 349 = \square \rightarrow \text{N}$

$3306 - 1468 = \square \rightarrow \text{W}$

$4404 - 1031 = \square \rightarrow \text{H}$

$6419 - 462 = \square \rightarrow \text{D}$

$2697 - 1521 = \square \rightarrow \text{B}$

$12923 - 4393 = \square \rightarrow \text{C}$

$5883 - 4802 = \square \rightarrow \text{E}$

$2701 - 1518 = \square \rightarrow \text{S}$

$3886 - 2172 = \square \rightarrow \text{L}$

$8681 - 548 = \square \rightarrow \text{I}$

$3369 - 396 = \square \rightarrow \text{T}$

Scratch space:

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

We found some shiny gold coins. We share them equally among our team. We divide them to find each 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:

$21 \div 3 = \boxed{}$

$88 \div 8 = \boxed{}$

$99 \div 11 = \boxed{}$

$48 \div 4 = \boxed{}$

$2 \div 1 = \boxed{}$

$66 \div 11 = \boxed{}$

$20 \div 4 = \boxed{}$

$20 \div 2 = \boxed{}$

$11 \div 11 = \boxed{}$

$12 \div 3 = \boxed{}$

$88 \div 11 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain shined the laser flashlight in the dark, then showed off the silver cloud badge.
2. The villain snapped a photo with the spy camera, then showed off the silver cloud badge.
3. The villain used the super compass to find the path, then tapped the small shell badge.
4. The villain snapped a photo with the spy camera, then tapped the small shell badge.
5. The villain used the super compass to find the path, then showed off the silver cloud badge.
6. The villain shined the laser flashlight in the dark, then dropped the wet wave badge.
7. The villain shined the laser flashlight in the dark, then tapped the small shell badge.
8. The villain swung up high with the grappling hook, then showed off the silver cloud badge.
9. The villain swung up high with the grappling hook, then tapped the small shell badge.
10. The villain shined the laser flashlight in the dark, then polished the green tree badge.
11. The villain snapped a photo with the spy camera, then polished the green tree badge.
12. The villain spotted the target with the pocket binoculars, then dropped the wet wave badge.

Answer Key

The Golden Pineapple Mystery

Culprit: Ruby

Super Compass · Shell Badge · Right-handed · Green Cap · Scared of Mud

Trail: Start 21 → Clue 1 19 → Clue 2 13 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE VILLAIN DOES NOT HAVE THE WAVE BADGE"

$6 \times 12 = 72$ (T) · $6 \times 7 = 42$ (E) · $6 \times 8 = 48$ (L) · $2 \times 7 = 14$ (H) · $7 \times 11 = 77$ (A) · $9 \times 9 = 81$ (V) · $1 \times 10 = 10$ (D) · $9 \times 7 = 63$ (W) · $11 \times 11 = 121$ (G) · $3 \times 7 = 21$ (S) · $9 \times 12 = 108$ (I) · $8 \times 11 = 88$ (B) · $6 \times 11 = 66$ (N) · $10 \times 4 = 40$ (O)

Clue 2 (Addition): "THE NOTES WERE WRITTEN WITH THE RIGHT HAND"

$2124 + 4592 = 6716$ (T) · $2747 + 2374 = 5121$ (R) · $2995 + 2094 = 5089$ (G) · $5027 + 4461 = 9488$ (N) · $4506 + 3646 = 8152$ (O) · $3494 + 2874 = 6368$ (A) · $2317 + 2690 = 5007$ (S) · $2275 + 3745 = 6020$ (I) · $5136 + 2250 = 7386$ (E) · $1197 + 2463 = 3660$ (D) · $6221 + 3222 = 9443$ (W) · $3901 + 3928 = 7829$ (H)

Clue 3 (Rounding): "THE VILLAIN RAN AWAY TO KEEP AWAY FROM MUD"

Round 4,922 to the nearest thousand = 5000 (T) · Round 47 to the nearest ten = 50 (M) · Round 1,714 to the nearest hundred = 1700 (O) · Round 23 to the nearest ten = 20 (A) · Round 430 to the nearest ten = 430 (W) · Round 107 to the nearest ten = 110 (N) · Round 290 to the nearest ten = 290 (P) · Round 366 to the nearest ten = 370 (E) · Round 936 to the nearest hundred = 900 (R) · Round 6,774 to the nearest thousand = 7000 (U) · Round 2,318 to the nearest hundred = 2300 (D) · Round 30 to the nearest ten = 30 (K) · Round 676 to the nearest hundred = 700 (L) · Round 2,912 to the nearest hundred = 2900 (Y) · Round 89 to the nearest ten = 90 (F) · Round 1,293 to the nearest hundred = 1300 (V) · Round 170 to the nearest ten = 170 (I) · Round 70 to the nearest ten = 70 (H)

Clue 4 (Subtraction): "A GREEN CAP BRIM SCRAPED THE LOW CEILING"

$7245 - 259 = 6986$ (A) · $8335 - 2963 = 5372$ (M) · $8346 - 255 = 8091$ (R) · $5439 - 3802 = 1637$ (O) · $4672 - 269 = 4403$ (P) · $9010 - 1348 = 7662$ (G) · $6683 - 349 = 6334$ (N) · $3306 - 1468 = 1838$ (W) · $4404 - 1031 = 3373$ (H) · $6419 - 462 = 5957$ (D) · $2697 - 1521 = 1176$ (B) · $12923 - 4393 = 8530$ (C) · $5883 - 4802 = 1081$ (E) · $2701 - 1518 = 1183$ (S) · $3886 - 2172 = 1714$ (L) · $8681 - 548 = 8133$ (I) · $3369 - 396 = 2973$ (T)

Clue 5 (Division facts (1-12)): surviving statement is box 3 → Ruby

$21 \div 3 = 7$ · $88 \div 8 = 11$ · $99 \div 11 = 9$ · $48 \div 4 = 12$ · $2 \div 1 = 2$ · $66 \div 11 = 6$ · $20 \div 4 = 5$ · $20 \div 2 = 10$ · $11 \div 11 = 1$ · $12 \div 3 = 4$ · $88 \div 11 = 8$