



The Mystery of Bramble Cay

Grade 4 math · Addition, Subtraction, Place value, Word problems, Division · Reading level grades 3-4

Detective: _____ Date: _____

A glowing power crystal has vanished from the research camp on Bramble Cay! The Chief Archaeologist needs your help to decode clues, clear innocent explorers, and catch the real thief.

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 crystal thief is _____

Possible suspects

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

NAME	MAIN TOOL	EXTRA GEAR	OBSERVATIONAL TELL	HAIR STYLE	SECRET WEAKNESS
Sailor Leo	Signal Flare	Compass Watch	Left Handed	Short Crop	Loud Whistles
Guide Uri	Signal Flare	Brass Telescope	Left Handed	Braided Hair	Itchy Pollen
Diver Quinn	Signal Flare	Brass Telescope	Right Handed	Curly Locks	Itchy Pollen
Captain Avery	Jungle Machete	Night Goggles	Left Handed	Short Crop	Loud Whistles
Hunter Sam	Grappling Hook	Climbing Pitons	Left Handed	Braided Hair	Bright Lights
Ranger Tara	Signal Flare	Climbing Pitons	Left Handed	Curly Locks	Bright Lights
Navigator Jasper	Jungle Machete	Climbing Pitons	Left Handed	Short Crop	Bright Lights
Scout Rita	Jungle Machete	Brass Telescope	Right Handed	Short Crop	Itchy Pollen
Explorer Vera	Glider Wings	Night Goggles	Left Handed	Curly Locks	Loud Whistles
Botanist Hugo	Jungle Machete	Brass Telescope	Left Handed	Braided Hair	Bright Lights
Professor Kora	Signal Flare	Climbing Pitons	Right Handed	Curly Locks	Loud Whistles
Tracker Elena	Jungle Machete	Night Goggles	Right Handed	Braided Hair	Loud Whistles
Explorer Clara	Grappling Hook	Pocket Radio	Left Handed	Curly Locks	Bright Lights
Tracker Will	Grappling Hook	Compass Watch	Right Handed	Curly Locks	Bright Lights
Pilot Isla	Smoke Bombs	Climbing Pitons	Left Handed	Braided Hair	Bright Lights
Hiker Olivia	Grappling Hook	Night Goggles	Left Handed	Braided Hair	Bright Lights
Dr Drake	Glider Wings	Compass Watch	Right Handed	Curly Locks	Bright Lights
Officer Noah	Signal Flare	Night Goggles	Left Handed	Braided Hair	Itchy Pollen
Cartographer Maya	Signal Flare	Night Goggles	Right Handed	Short Crop	Itchy Pollen
Ranger Felix	Signal Flare	Night Goggles	Left Handed	Braided Hair	Bright Lights
Guide Greta	Jungle Machete	Pocket Radio	Right Handed	Braided Hair	Bright Lights

CLUE 1 Addition

Our expedition team found supply crates scattered along the jungle trail. We need to add up the totals to count our gear.

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

T																T
2899	5088	2248	8801	5402	4834	4834	6371	5402	4508	9088	8853	2248	5463	4508	8853	2899
											T					
4350	6371	4104	4104	3181	6371	8168	4104	6371	5463	5463	2899	2248	4834	2248	5463	4350

$930 + 1969 = \square \rightarrow$ T	$2414 + 2674 = \square \rightarrow$ H	$6184 + 2904 = \square \rightarrow$ D
$5893 + 2960 = \square \rightarrow$ O	$2131 + 2377 = \square \rightarrow$ N	$1294 + 1887 = \square \rightarrow$ Y
$3145 + 2257 = \square \rightarrow$ I	$2247 + 2103 = \square \rightarrow$ C	$1716 + 3086 = \square \rightarrow$ P
$1501 + 747 = \square \rightarrow$ E	$3581 + 1882 = \square \rightarrow$ S	$1451 + 3383 = \square \rightarrow$ L
$5350 + 3451 = \square \rightarrow$ V	$4285 + 2086 = \square \rightarrow$ A	$5040 + 3128 = \square \rightarrow$ B
$2584 + 1520 = \square \rightarrow$ R		

Scratch space:

CLUE 2 Subtraction

Someone took food supplies from our base camp during the night. We must calculate how much is missing from our packs.

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

T									T				T					T
4616	5563	1945	5218	4713	5218	8330	1945	2752	4616	1264	1945	4387	4616	3708	1264	1945	4387	4616
								T			T							
5563	3708	8632	6819	8330	6846	4367	8632	4616	2807	8632	4616	5563	1945	1264	2807	6347		

$$8591 - 3975 = \boxed{} \rightarrow \boxed{T}$$

$$5735 - 517 = \boxed{} \rightarrow \boxed{S}$$

$$5140 - 2388 = \boxed{} \rightarrow \boxed{C}$$

$$7752 - 1405 = \boxed{} \rightarrow \boxed{G}$$

$$5692 - 2885 = \boxed{} \rightarrow \boxed{O}$$

$$4998 - 3734 = \boxed{} \rightarrow \boxed{L}$$

$$6487 - 2779 = \boxed{} \rightarrow \boxed{A}$$

$$7996 - 3609 = \boxed{} \rightarrow \boxed{F}$$

$$5050 - 337 = \boxed{} \rightarrow \boxed{U}$$

$$11680 - 4834 = \boxed{} \rightarrow \boxed{R}$$

$$5189 - 3244 = \boxed{} \rightarrow \boxed{E}$$

$$9183 - 3620 = \boxed{} \rightarrow \boxed{H}$$

$$13162 - 4530 = \boxed{} \rightarrow \boxed{N}$$

$$6939 - 120 = \boxed{} \rightarrow \boxed{D}$$

$$7864 - 3497 = \boxed{} \rightarrow \boxed{I}$$

$$8948 - 618 = \boxed{} \rightarrow \boxed{P}$$

Scratch space:

CLUE 3 Place value

A locked stone door guards the ancient ruins. We need to read the digit values on the dial to unlock it.

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

T																		
100	300	80	600	500	800	800	60	500	70	400	800	80	8000	900	300	80	70	60
					T					T								
4000	2000	500	6000	300	100	800	500	6000	300	100	400	800	60	9000	300	80	8000	

What is the value of the 1 in 5,176? → **T**

What is the value of the 4 in 34,269? → **B**

What is the value of the 6 in 8,613? → **V**

What is the value of the 6 in 16,525? → **G**

What is the value of the 4 in 3,491? → **F**

What is the value of the 8 in 6,382? → **E**

What is the value of the 8 in 1,824? → **L**

What is the value of the 5 in 567? → **I**

What is the value of the 9 in 6,921? → **W**

What is the value of the 6 in 5,264? → **A**

What is the value of the 3 in 327? → **H**

What is the value of the 9 in 9,335? → **S**

What is the value of the 2 in 2,955? → **R**

What is the value of the 8 in 18,711? → **D**

What is the value of the 7 in 379? → **N**

Scratch space:

CLUE 4**Word problems**

The camp scout wrote down notes about trail markers and supplies. Let us solve these story problems to track the thief.

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

A strand of

B											
76	10	46	57	74	8	74	52	46	57	10	

 hair turned up at the scene.

There were 98 torches. 22 were used up. How many torches are left?

Answer: → **B**

There were 95 canteen cups. 21 were used up. How many canteen cups are left?

Answer: → **D**

Camp scout found 27 torches yesterday and 19 more today. How many torches in all?

Answer: → **A**

Camp scout lined up 4 rows of 2 maps. How many maps in all?

Answer: → **E**

Camp scout found 2 maps yesterday and 8 more today. How many maps in all?

Answer: → **R**

There were 84 canteen cups. 27 were used up. How many canteen cups are left?

Answer: → **I**

Camp scout found 37 canteen cups yesterday and 15 more today. How many canteen cups in all?

Answer: → **H**

Scratch space:

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

We found a pile of golden coins in a hidden chest. We must split them equally into groups to pack them safely.

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:

$55 \div 5 = \boxed{}$

$20 \div 2 = \boxed{}$

$11 \div 11 = \boxed{}$

$81 \div 9 = \boxed{}$

$12 \div 4 = \boxed{}$

$6 \div 3 = \boxed{}$

$70 \div 10 = \boxed{}$

$72 \div 9 = \boxed{}$

$24 \div 6 = \boxed{}$

$24 \div 4 = \boxed{}$

$5 \div 1 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain vanished into a cloud of smoke bombs, then anchored the rope with climbing pitons.
2. The villain vanished into a cloud of smoke bombs, then spotted the route with night goggles.
3. The villain vanished into a cloud of smoke bombs, then listened for news on a pocket radio.
4. The villain soared over the treetops on glider wings, then listened for news on a pocket radio.
5. The villain soared over the treetops on glider wings, then anchored the rope with climbing pitons.
6. The villain cleared a hidden path with a jungle machete, then checked the time using a compass watch.
7. The villain vanished into a cloud of smoke bombs, then checked the time using a compass watch.
8. The villain swung across the ravine with a grappling hook, then listened for news on a pocket radio.
9. The villain cleared a hidden path with a jungle machete, then listened for news on a pocket radio.
10. The villain swung across the ravine with a grappling hook, then spotted the route with night goggles.
11. The villain swung across the ravine with a grappling hook, then anchored the rope with climbing pitons.
12. The villain lit up the jungle sky with a signal flare, then spotted the route with night goggles.

Answer Key

The Mystery of Bramble Cay

Culprit: Ranger Felix

Signal Flare · Night Goggles · Left Handed · Braided Hair · Bright Lights

Trail: Start 21 → Clue 1 17 → Clue 2 11 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE VILLAIN DOES NOT CARRY A BRASS TELESCOPE"

$930 + 1969 = 2899$ (T) · $2414 + 2674 = 5088$ (H) · $6184 + 2904 = 9088$ (D) · $5893 + 2960 = 8853$ (O) · $2131 + 2377 = 4508$ (N) · $1294 + 1887 = 3181$ (Y) · $3145 + 2257 = 5402$ (I) · $2247 + 2103 = 4350$ (C) · $1716 + 3086 = 4802$ (P) · $1501 + 747 = 2248$ (E) · $3581 + 1882 = 5463$ (S) · $1451 + 3383 = 4834$ (L) · $5350 + 3451 = 8801$ (V) · $4285 + 2086 = 6371$ (A) · $5040 + 3128 = 8168$ (B) · $2584 + 1520 = 4104$ (R)

Clue 2 (Subtraction): "THE SUSPECT LEFT A LEFT HAND PRINT ON THE LOG"

$8591 - 3975 = 4616$ (T) · $5735 - 517 = 5218$ (S) · $5140 - 2388 = 2752$ (C) · $7752 - 1405 = 6347$ (G) · $5692 - 2885 = 2807$ (O) · $4998 - 3734 = 1264$ (L) · $6487 - 2779 = 3708$ (A) · $7996 - 3609 = 4387$ (F) · $5050 - 337 = 4713$ (U) · $11680 - 4834 = 6846$ (R) · $5189 - 3244 = 1945$ (E) · $9183 - 3620 = 5563$ (H) · $13162 - 4530 = 8632$ (N) · $6939 - 120 = 6819$ (D) · $7864 - 3497 = 4367$ (I) · $8948 - 618 = 8330$ (P)

Clue 3 (Place value): "THE VILLAIN FLED WHEN A BRIGHT LIGHT FLASHED"

What is the value of the 1 in 5,176? = 100 (T) · What is the value of the 4 in 34,269? = 4000 (B) · What is the value of the 6 in 8,613? = 600 (V) · What is the value of the 6 in 16,525? = 6000 (G) · What is the value of the 4 in 3,491? = 400 (F) · What is the value of the 8 in 6,382? = 80 (E) · What is the value of the 8 in 1,824? = 800 (L) · What is the value of the 5 in 567? = 500 (I) · What is the value of the 9 in 6,921? = 900 (W) · What is the value of the 6 in 5,264? = 60 (A) · What is the value of the 3 in 327? = 300 (H) · What is the value of the 9 in 9,335? = 9000 (S) · What is the value of the 2 in 2,955? = 2000 (R) · What is the value of the 8 in 18,711? = 8000 (D) · What is the value of the 7 in 379? = 70 (N)

Clue 4 (Word problems): "BRAIDED HAIR"

There were 98 torches. 22 were used up. How many torches are left? = 76 (B) · There were 95 canteen cups. 21 were used up. How many canteen cups are left? = 74 (D) · Camp scout found 27 torches yesterday and 19 more today. How many torches in all? = 46 (A) · Camp scout lined up 4 rows of 2 maps. How many maps in all? = 8 (E) · Camp scout found 2 maps yesterday and 8 more today. How many maps in all? = 10 (R) · There were 84 canteen cups. 27 were used up. How many canteen cups are left? = 57 (I) · Camp scout found 37 canteen cups yesterday and 15 more today. How many canteen cups in all? = 52 (H)

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

$55 \div 5 = 11$ · $20 \div 2 = 10$ · $11 \div 11 = 1$ · $81 \div 9 = 9$ · $12 \div 4 = 3$ · $6 \div 3 = 2$ · $70 \div 10 = 7$ · $72 \div 9 = 8$ · $24 \div 6 = 4$ · $24 \div 4 = 6$ · $5 \div 1 = 5$