



The Mystery of Barnacle Bay

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

Detective: _____ Date: _____

Someone snuck onto the flagship ship and stole the golden compass! Work through the clues to discover which sneaky pirate pulled off the heist.

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 sea thief is _____

Possible suspects

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

NAME	PRIMARY WEAPON	SAILING GEAR	STANCE	HAT STYLE	FEAR
Olivier Levasseur	Cannonball	Rope Ladder	Right Handed	Black Bandana	Parrot Squawks
Edward Low	Flintlock	Iron Anchor	Left Handed	Red Tricorn	Bright Searchlights
Edward England	Grappling Hook	Map Scroll	Right Handed	Red Tricorn	Tickling Seaweed
George Lowther	Cutlass	Spyglass	Left Handed	Black Bandana	Tickling Seaweed
Blackbeard	Flintlock	Spyglass	Right Handed	Black Bandana	Parrot Squawks
William Kidd	Grappling Hook	Rope Ladder	Right Handed	Black Bandana	Parrot Squawks
Calico Jack	Grappling Hook	Brass Compass	Right Handed	Black Bandana	Bright Searchlights
Stede Bonnet	Grappling Hook	Iron Anchor	Right Handed	Black Bandana	Tickling Seaweed
Samuel Bellamy	Cannonball	Rope Ladder	Left Handed	Feathered Cap	Bright Searchlights
Thomas Tew	Cutlass	Brass Compass	Right Handed	Black Bandana	Bright Searchlights
Christopher Condent	Flintlock	Map Scroll	Left Handed	Red Tricorn	Bright Searchlights
Grace O Malley	Cannonball	Brass Compass	Right Handed	Black Bandana	Parrot Squawks
Bartholomew Roberts	Flintlock	Brass Compass	Left Handed	Black Bandana	Bright Searchlights
Charles Vane	Cutlass	Map Scroll	Right Handed	Feathered Cap	Parrot Squawks
Mary Read	Wooden Staff	Spyglass	Right Handed	Black Bandana	Tickling Seaweed
Charlotte de Berry	Flintlock	Iron Anchor	Right Handed	Feathered Cap	Parrot Squawks
Howell Davis	Cannonball	Spyglass	Left Handed	Black Bandana	Parrot Squawks
John Evans	Grappling Hook	Map Scroll	Right Handed	Black Bandana	Parrot Squawks
Woodes Rogers	Cannonball	Brass Compass	Right Handed	Feathered Cap	Parrot Squawks
Richard Worley	Cutlass	Brass Compass	Left Handed	Red Tricorn	Parrot Squawks
Salty Sam	Grappling Hook	Map Scroll	Left Handed	Feathered Cap	Parrot Squawks

CLUE 1

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

130 30 900 700 3000 1100 1100 230 3000 70 7000 430 900 500 70 430 130

170 500 900 230 50 230 20 500 5000 370 430 1100 1100

Round 127 to the nearest ten → **T**

Round 51 to the nearest ten → **M**

Round 2,740 to the nearest thousand $\rightarrow$

Round 1,108 to the nearest hundred $\rightarrow$ **L**

Round 31 to the nearest ten → **H**

Round 73 to the nearest ten → **N**

Round 17 to the nearest ten → **P**

Round 706 to the nearest hundred $\rightarrow$ **V**

Round 372 to the nearest ten $\rightarrow$ **R**

Round 5,091 to the nearest thousand → **C**

Round 7,119 to the nearest thousand → **D**

Round 468 to the nearest hundred →

Round 227 to the nearest ten → **A**

Round 851 to the nearest hundred → **E**

Round 427 to the nearest ten $\rightarrow$

Round 169 to the nearest ten $\rightarrow$ **U**

Scratch space:

CLUE 2

Word problems

The ship spyglass scale rounds distances to the nearest league.

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

A witness saw the villain was

R									D	E	D
39	48	64	42	51	42	55	63				

There were 76 gold doubloons. 37 were used up. How many gold doubloons are left?

Answer: → **R**

There were 65 cannonballs. 10 were used up. How many cannonballs are left?

Answer: → **A**

There were 59 ship compasses. 8 were used up. How many ship compasses are left?

Answer: → **T**

Quartermaster Barnaby found 40 gold doubloons yesterday and 24 more today. How many gold doubloons in all?

Answer: → **G**

Quartermaster Barnaby lined up 4 rows of 12 treasure chests. How many treasure chests in all?

Answer: → **I**

Quartermaster Barnaby lined up 7 rows of 9 treasure chests. How many treasure chests in all?

Answer: → **N**

There were 68 treasure chests. 26 were used up. How many treasure chests are left?

Answer: → **H**

Scratch space:

CLUE 3
Addition

You add up all the recovered gold doubloons on deck.

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

T																			T
9538	7018	7402	7581	7646	6909	6909	6027	4830	4456	5903	8929	7581	7018	7402	7575	6262	9538		

					T							
7881	6262	7646	7646	6909	9538	6660	7897	6525	6262	6369	6027	6660

$5865 + 3673 = \boxed{} \rightarrow \boxed{\text{T}}$

$2148 + 4761 = \boxed{} \rightarrow \boxed{\text{O}}$

$3836 + 4061 = \boxed{} \rightarrow \boxed{\text{Q}}$

$4063 + 3518 = \boxed{} \rightarrow \boxed{\text{C}}$

$2599 + 2231 = \boxed{} \rightarrow \boxed{\text{F}}$

$2133 + 4236 = \boxed{} \rightarrow \boxed{\text{W}}$

$2616 + 3646 = \boxed{} \rightarrow \boxed{\text{A}}$

$4144 + 4785 = \boxed{} \rightarrow \boxed{\text{N}}$

$3830 + 3745 = \boxed{} \rightarrow \boxed{\text{D}}$

$1542 + 2914 = \boxed{} \rightarrow \boxed{\text{L}}$

$4666 + 2352 = \boxed{} \rightarrow \boxed{\text{H}}$

$4139 + 1888 = \boxed{} \rightarrow \boxed{\text{K}}$

$2557 + 4845 = \boxed{} \rightarrow \boxed{\text{E}}$

$2416 + 4109 = \boxed{} \rightarrow \boxed{\text{U}}$

$4036 + 2624 = \boxed{} \rightarrow \boxed{\text{S}}$

$2696 + 3207 = \boxed{} \rightarrow \boxed{\text{I}}$

$2923 + 4958 = \boxed{} \rightarrow \boxed{\text{P}}$

$2665 + 4981 = \boxed{} \rightarrow \boxed{\text{R}}$

Scratch space:

CLUE 4

Subtraction

You subtract the damaged barrels from the galley tally.

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

E				E			E							
2956	6029	7423	8981	2956	8116	5673	2956	7474	5274	6329	1128	7474	5009	

					E											
8981	4109	6329	1432	1432	2956	8981	3158	3029	5009	5673	4100	3158	5009	8116	8981	5009

$$6856 - 3900 = \boxed{} \rightarrow \boxed{E}$$

$$7030 - 1001 = \boxed{} \rightarrow \boxed{V}$$

$$12518 - 4402 = \boxed{} \rightarrow \boxed{N}$$

$$9841 - 2418 = \boxed{} \rightarrow \boxed{I}$$

$$8575 - 1101 = \boxed{} \rightarrow \boxed{S}$$

$$3820 - 791 = \boxed{} \rightarrow \boxed{L}$$

$$9264 - 4255 = \boxed{} \rightarrow \boxed{A}$$

$$4290 - 190 = \boxed{} \rightarrow \boxed{K}$$

$$6833 - 2724 = \boxed{} \rightarrow \boxed{R}$$

$$5323 - 2165 = \boxed{} \rightarrow \boxed{B}$$

$$5506 - 232 = \boxed{} \rightarrow \boxed{H}$$

$$3014 - 1582 = \boxed{} \rightarrow \boxed{P}$$

$$9028 - 2699 = \boxed{} \rightarrow \boxed{O}$$

$$3252 - 2124 = \boxed{} \rightarrow \boxed{W}$$

$$11567 - 2586 = \boxed{} \rightarrow \boxed{D}$$

$$6888 - 1215 = \boxed{} \rightarrow \boxed{C}$$

Scratch space:

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

You divide the total ship rations equally among the sailors.

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:

$132 \div 12 = \boxed{}$

$60 \div 5 = \boxed{}$

$28 \div 7 = \boxed{}$

$40 \div 8 = \boxed{}$

$5 \div 5 = \boxed{}$

$2 \div 1 = \boxed{}$

$18 \div 3 = \boxed{}$

$6 \div 2 = \boxed{}$

$70 \div 10 = \boxed{}$

$90 \div 10 = \boxed{}$

$120 \div 12 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain swung a wooden staff, then unrolled a map scroll.
2. The villain threw a grappling hook, then peered through a spyglass.
3. The villain rolled a heavy cannonball, then unrolled a map scroll.
4. The villain fired a rusty flintlock, then peered through a spyglass.
5. The villain fired a rusty flintlock, then climbed a rope ladder.
6. The villain fired a rusty flintlock, then checked a brass compass.
7. The villain fired a rusty flintlock, then dropped an iron anchor.
8. The villain rolled a heavy cannonball, then checked a brass compass.
9. The villain rolled a heavy cannonball, then peered through a spyglass.
10. The villain swung a wooden staff, then dropped an iron anchor.
11. The villain threw a grappling hook, then climbed a rope ladder.
12. The villain rolled a heavy cannonball, then climbed a rope ladder.

Answer Key

The Mystery of Barnacle Bay

Culprit: Grace O Malley

Cannonball · Brass Compass · Right Handed · Black Bandana · Parrot Squawks

Trail: Start 21 → Clue 1 16 → Clue 2 10 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE VILLAIN DOES NOT USE A MAP SCROLL"

Round 127 to the nearest ten = 130 (T) · Round 51 to the nearest ten = 50 (M) · Round 2,740 to the nearest thousand = 3000 (I) · Round 1,108 to the nearest hundred = 1100 (L) · Round 31 to the nearest ten = 30 (H) · Round 73 to the nearest ten = 70 (N) · Round 17 to the nearest ten = 20 (P) · Round 706 to the nearest hundred = 700 (V) · Round 372 to the nearest ten = 370 (R) · Round 5,091 to the nearest thousand = 5000 (C) · Round 7,119 to the nearest thousand = 7000 (D) · Round 468 to the nearest hundred = 500 (S) · Round 227 to the nearest ten = 230 (A) · Round 851 to the nearest hundred = 900 (E) · Round 427 to the nearest ten = 430 (O) · Round 169 to the nearest ten = 170 (U)

Clue 2 (Word problems): "RIGHT HANDED"

There were 76 gold doubloons. 37 were used up. How many gold doubloons are left? = 39 (R) · There were 65 cannonballs. 10 were used up. How many cannonballs are left? = 55 (A) · There were 59 ship compasses. 8 were used up. How many ship compasses are left? = 51 (T) · Quartermaster Barnaby found 40 gold doubloons yesterday and 24 more today. How many gold doubloons in all? = 64 (G) · Quartermaster Barnaby lined up 4 rows of 12 treasure chests. How many treasure chests in all? = 48 (I) · Quartermaster Barnaby lined up 7 rows of 9 treasure chests. How many treasure chests in all? = 63 (N) · There were 68 treasure chests. 26 were used up. How many treasure chests are left? = 42 (H)

Clue 3 (Addition): "THE CROOK FLINCHED AT PARROT SQUAWKS"

$5865 + 3673 = 9538$ (T) · $2148 + 4761 = 6909$ (O) · $3836 + 4061 = 7897$ (Q) · $4063 + 3518 = 7581$ (C) · $2599 + 2231 = 4830$ (F) · $2133 + 4236 = 6369$ (W) · $2616 + 3646 = 6262$ (A) · $4144 + 4785 = 8929$ (N) · $3830 + 3745 = 7575$ (D) · $1542 + 2914 = 4456$ (L) · $4666 + 2352 = 7018$ (H) · $4139 + 1888 = 6027$ (K) · $2557 + 4845 = 7402$ (E) · $2416 + 4109 = 6525$ (U) · $4036 + 2624 = 6660$ (S) · $2696 + 3207 = 5903$ (I) · $2923 + 4958 = 7881$ (P) · $2665 + 4981 = 7646$ (R)

Clue 4 (Subtraction): "EVIDENCE SHOWS A DROPPED BLACK BANDANA"

$6856 - 3900 = 2956$ (E) · $7030 - 1001 = 6029$ (V) · $12518 - 4402 = 8116$ (N) · $9841 - 2418 = 7423$ (I) · $8575 - 1101 = 7474$ (S) · $3820 - 791 = 3029$ (L) · $9264 - 4255 = 5009$ (A) · $4290 - 190 = 4100$ (K) · $6833 - 2724 = 4109$ (R) · $5323 - 2165 = 3158$ (B) · $5506 - 232 = 5274$ (H) · $3014 - 1582 = 1432$ (P) · $9028 - 2699 = 6329$ (O) · $3252 - 2124 = 1128$ (W) · $11567 - 2586 = 8981$ (D) · $6888 - 1215 = 5673$ (C)

Clue 5 (Division facts (1-12)): surviving statement is box 8 → Grace O Malley

$132 \div 12 = 11$ · $60 \div 5 = 12$ · $28 \div 7 = 4$ · $40 \div 8 = 5$ · $5 \div 5 = 1$ · $2 \div 1 = 2$ · $18 \div 3 = 6$ · $6 \div 2 = 3$ · $70 \div 10 = 7$ · $90 \div 10 = 9$ · $120 \div 12 = 10$