



The Mystery of Barnacle Bay

Grade 2 math · Place value, Addition, Skip counting, Subtraction, Missing addends · Reading level grades 1-2

Detective: _____ Date: _____

A sneaky pirate has taken Captain Barnaby's golden compass! We must track them down before they sail away into the misty seas.

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 pirate is _____

Possible suspects

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

NAME	SWORD STYLE	PIRATE GEAR	HAND USE	BANDANA	SILLY FEAR
Scurvy Dog	Cutlass Spin	Golden Spyglass	Left Handed	Red Bandana	Scared of Crabs
Salty Sally	Cutlass Spin	Peg Leg	Left Handed	Red Bandana	Scared of Frogs
Calico Jack	Cutlass Spin	Golden Spyglass	Left Handed	Green Bandana	Scared of Frogs
Barnacle Bill	Cutlass Spin	Peg Leg	Left Handed	Green Bandana	Scared of Frogs
Cutlass Kate	Dagger Toss	Feather Hat	Right Handed	Blue Bandana	Scared of Crabs
Captain Kidd	Double Blade	Shiny Hook	Right Handed	Green Bandana	Scared of Crabs
Red Beard	Saber Slash	Feather Hat	Left Handed	Green Bandana	Scared of Frogs
Anne Bonny	Hook Jab	Golden Spyglass	Left Handed	Green Bandana	Scared of Parrots
Bilge Rat Bill	Double Blade	Golden Spyglass	Left Handed	Blue Bandana	Scared of Frogs
Captain Hook	Cutlass Spin	Magic Compass	Left Handed	Blue Bandana	Scared of Parrots
Gullwing Gary	Dagger Toss	Magic Compass	Left Handed	Red Bandana	Scared of Frogs
Captain Flint	Cutlass Spin	Magic Compass	Right Handed	Green Bandana	Scared of Frogs
Sir Francis	Saber Slash	Feather Hat	Left Handed	Blue Bandana	Scared of Crabs
Long John	Hook Jab	Feather Hat	Left Handed	Green Bandana	Scared of Frogs
Blackbeard	Hook Jab	Golden Spyglass	Left Handed	Green Bandana	Scared of Crabs
Scurvy Sam	Saber Slash	Feather Hat	Right Handed	Red Bandana	Scared of Frogs
One Eyed Willy	Dagger Toss	Peg Leg	Right Handed	Green Bandana	Scared of Frogs
Henry Morgan	Cutlass Spin	Shiny Hook	Right Handed	Green Bandana	Scared of Parrots
Patchy Pete	Saber Slash	Shiny Hook	Left Handed	Green Bandana	Scared of Parrots
Jolly Roger	Double Blade	Shiny Hook	Left Handed	Green Bandana	Scared of Frogs
Barnaby Blue	Dagger Toss	Golden Spyglass	Left Handed	Green Bandana	Scared of Parrots

CLUE 1 Place value

We look at the ship logs. The numbers are written in tens and ones. Let us find the real value of the gold.

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

T								T										T
35	57	92	91	71	64	42	35	92	25	81	92	23	19	81	35			
57	42	18	92	42	23	57	71	19	51	57	81	81	24					

What number has 3 tens and 5 ones? → **T**

What number has 7 tens and 1 one? → **I**

What number has 2 tens and 4 ones? → **K**

What number has 9 tens and 1 one? → **P**

What number has 2 tens and 3 ones? → **S**

What number has 9 tens and 2 ones? → **E**

What number has 8 tens and 1 one? → **O**

What number has 1 ten and 9 ones? → **N**

What number has 5 tens and 1 one? → **Y**

What number has 5 tens and 7 ones? → **H**

What number has 4 tens and 2 ones? → **A**

What number has 2 tens and 5 ones? → **D**

What number has 6 tens and 4 ones? → **R**

What number has 1 ten and 8 ones? → **V**

Scratch space:

CLUE 2 Addition

The deckhand adds up the heavy crates of food. We must put the two piles together to find the total sum.

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

T																			
83	79	58	60	81	53	48	53	85	59	32	86	81	59	72	38	48	59	21	38
		T		T						T									
72	53	83	79	83	79	58	32	58	34	83	79	59	85	86					

$40 + 43 = \square \rightarrow$ T	$14 + 34 = \square \rightarrow$ M	$25 + 33 = \square \rightarrow$ E
$28 + 51 = \square \rightarrow$ H	$27 + 58 = \square \rightarrow$ N	$22 + 10 = \square \rightarrow$ L
$24 + 36 = \square \rightarrow$ C	$10 + 24 = \square \rightarrow$ F	$12 + 9 = \square \rightarrow$ P
$33 + 26 = \square \rightarrow$ A	$58 + 28 = \square \rightarrow$ D	$11 + 27 = \square \rightarrow$ S
$37 + 16 = \square \rightarrow$ I	$51 + 21 = \square \rightarrow$ W	$24 + 57 = \square \rightarrow$ R

Scratch space:

CLUE 3

We follow the wet footprints on the deck. They jump by twos all the way from the cabin to the big sail.

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

A 2x10 grid of boxes. The first box in the first row contains the letter 'T'. Below each box is a number. The numbers in the first row are: 42, 30, 33, 14, 70, 90, 40, 33, 20, 33, 21, 25, 16, 21, 60, 21, 55. The numbers in the second row are: 50, 14, 70, 8, 90, 14, 33, 33, 36, 130, 14, 70, 21, 10, 55, 50, 14, 70, 90, 16.

T																			
42	30	33	14	70	90	40	33	20	33	21	25	16	21	60	21	55			
50	14	70	8	90	14	33	33	36	130	14	70	21	10	55	50	14	70	90	16

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, __, 45, 48 → T

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, , 36, 39 → **E**

Skip-count by 2s. Fill the blank: 2, 4, 6, __, 10, 12 → **M**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, __, 35, 40 → **H**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, __, 39, 42 → **N**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, __, 100, 110 → **G**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, __, 80, 90 →

Skip-count by 5s. Fill the blank: 5, 10, 15, __, 25, 30 → **L**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, , 16, 18 → **R**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 → **P**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, __, 65, 70 → **W**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, __, 12, 14 → **K**

Skip-count by 10s. Fill the blank: 10, 20, 30, __, 50, 60 → **U**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, __, 24, 27 → **A**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, __, 60, 65 → **Y**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, __, 60, 70 → **F**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, __, 18, 20 → **S**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, __, 140, 150 → **C**

Scratch space:

CLUE 4

Subtraction

The crew drops some heavy lead weights into the dark water. We subtract what we lost to find what is left.

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

S											S								
40	29	46	74	57	29	50	46	48	74	25	40	89	88	45	46	48	48	30	
88	74	11	46	32	59	47	48	46	48	83	48	88	29	11	48	50	32	30	25

$54 - 14 = \square \rightarrow \text{S}$

$84 - 34 = \square \rightarrow \text{H}$

$103 - 14 = \square \rightarrow \text{O}$

$66 - 9 = \square \rightarrow \text{Y}$

$44 - 33 = \square \rightarrow \text{B}$

$89 - 15 = \square \rightarrow \text{A}$

$71 - 25 = \square \rightarrow \text{R}$

$94 - 11 = \square \rightarrow \text{L}$

$69 - 22 = \square \rightarrow \text{W}$

$73 - 14 = \square \rightarrow \text{C}$

$86 - 38 = \square \rightarrow \text{E}$

$115 - 27 = \square \rightarrow \text{F}$

$85 - 40 = \square \rightarrow \text{G}$

$49 - 24 = \square \rightarrow \text{D}$

$56 - 26 = \square \rightarrow \text{N}$

$69 - 37 = \square \rightarrow \text{I}$

$38 - 9 = \square \rightarrow \text{T}$

Scratch space:

CLUE 5**Missing addends - the last clue**

We had twelve shiny gold coins but now some are gone. We must find how many are missing from our chest.

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:

$7 + \underline{\quad} = 19$

$7 + \underline{\quad} = 9$

$1 + \underline{\quad} = 12$

$1 + \underline{\quad} = 6$

$8 + \underline{\quad} = 18$

$10 + \underline{\quad} = 13$

$10 + \underline{\quad} = 18$

$3 + \underline{\quad} = 10$

$2 + \underline{\quad} = 11$

$6 + \underline{\quad} = 10$

$9 + \underline{\quad} = 15$

Step 2 - cross out the sentence with each answer:

1. The villain swings with a hook jab, then tips a feather hat.
2. The villain strikes with a saber slash, then tips a feather hat.
3. The villain swings with a hook jab, then waves a shiny hook.
4. The villain strikes with a saber slash, then peers through a golden spyglass.
5. The villain swings with a hook jab, then clomps on a peg leg.
6. The villain throws with a dagger toss, then peers through a golden spyglass.
7. The villain strikes with a saber slash, then clomps on a peg leg.
8. The villain fights with a double blade, then checks a magic compass.
9. The villain fights with a double blade, then clomps on a peg leg.
10. The villain fights with a double blade, then peers through a golden spyglass.
11. The villain spins with a cutlass spin, then peers through a golden spyglass.
12. The villain spins with a cutlass spin, then clomps on a peg leg.

Answer Key

The Mystery of Barnacle Bay

Culprit: Long John

Hook Jab · Feather Hat · Left Handed · Green Bandana · Scared of Frogs

Trail: Start 21 → Clue 1 17 → Clue 2 13 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE PIRATE DOES NOT HAVE A SHINY HOOK"

What number has 3 tens and 5 ones? = 35 (T) · What number has 7 tens and 1 one? = 71 (I) · What number has 2 tens and 4 ones? = 24 (K) · What number has 9 tens and 1 one? = 91 (P) · What number has 2 tens and 3 ones? = 23 (S) · What number has 9 tens and 2 ones? = 92 (E) · What number has 8 tens and 1 one? = 81 (O) · What number has 1 ten and 9 ones? = 19 (N) · What number has 5 tens and 1 one? = 51 (Y) · What number has 5 tens and 7 ones? = 57 (H) · What number has 4 tens and 2 ones? = 42 (A) · What number has 2 tens and 5 ones? = 25 (D) · What number has 6 tens and 4 ones? = 64 (R) · What number has 1 ten and 8 ones? = 18 (V)

Clue 2 (Addition): "THE CRIMINAL DRAWS MAPS WITH THE LEFT HAND"

$40 + 43 = 83$ (T) · $14 + 34 = 48$ (M) · $25 + 33 = 58$ (E) · $28 + 51 = 79$ (H) · $27 + 58 = 85$ (N) · $22 + 10 = 32$ (L) · $24 + 36 = 60$ (C) · $10 + 24 = 34$ (F) · $12 + 9 = 21$ (P) · $33 + 26 = 59$ (A) · $58 + 28 = 86$ (D) · $11 + 27 = 38$ (S) · $37 + 16 = 53$ (I) · $51 + 21 = 72$ (W) · $24 + 57 = 81$ (R)

Clue 3 (Skip counting): "THE ROGUE LEAPS AWAY FROM GREEN CROAKY FROGS"

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, __, 45, 48 = 42 (T) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, __, 36, 39 = 33 (E) · Skip-count by 2s. Fill the blank: 2, 4, 6, __, 10, 12 = 8 (M) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, __, 35, 40 = 30 (H) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, __, 39, 42 = 36 (N) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, __, 100, 110 = 90 (G) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, __, 80, 90 = 70 (O) · Skip-count by 5s. Fill the blank: 5, 10, 15, __, 25, 30 = 20 (L) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, __, 16, 18 = 14 (R) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 = 25 (P) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, __, 65, 70 = 60 (W) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, __, 12, 14 = 10 (K) · Skip-count by 10s. Fill the blank: 10, 20, 30, __, 50, 60 = 40 (U) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, __, 24, 27 = 21 (A) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, __, 60, 65 = 55 (Y) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, __, 60, 70 = 50 (F) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, __, 18, 20 = 16 (S) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, __, 140, 150 = 130 (C)

Clue 4 (Subtraction): "STRAY THREADS OF GREEN FABRIC WERE LEFT BEHIND"

$54 - 14 = 40$ (S) · $84 - 34 = 50$ (H) · $103 - 14 = 89$ (O) · $66 - 9 = 57$ (Y) · $44 - 33 = 11$ (B) · $89 - 15 = 74$ (A) · $71 - 25 = 46$ (R) · $94 - 11 = 83$ (L) · $69 - 22 = 47$ (W) · $73 - 14 = 59$ (C) · $86 - 38 = 48$ (E) · $115 - 27 = 88$ (F) · $85 - 40 = 45$ (G) · $49 - 24 = 25$ (D) · $56 - 26 = 30$ (N) · $69 - 37 = 32$ (I) · $38 - 9 = 29$ (T)

Clue 5 (Missing addends): surviving statement is box 1 → Long John

$7 + \underline{\quad} = 19 = 12$ · $7 + \underline{\quad} = 9 = 2$ · $1 + \underline{\quad} = 12 = 11$ · $1 + \underline{\quad} = 6 = 5$ · $8 + \underline{\quad} = 18 = 10$ · $10 + \underline{\quad} = 13 = 3$ · $10 + \underline{\quad} = 18 = 8$ · $3 + \underline{\quad} = 10 = 7$ · $2 + \underline{\quad} = 11 = 9$ · $6 + \underline{\quad} = 10 = 4$ · $9 + \underline{\quad} = 15 = 6$