



The Mystery of the Black Cove Treasure

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

Detective: _____ Date: _____

Oh no! A sneaky pirate stole the Captain's favorite golden compass from the ship cabin! We must search Scurvy Sandbar, solve the clues, and find the 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 pirate 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 SKILL	PIRATE GEAR	WRITING HAND	BANDANNA COLOR	PIRATE FEAR
Blackbeard	Ship Cook	Shiny Cutlass	Writes Right Handed	Red Bandanna	Hates Seaweed
Sailor Sue	Map Reader	Iron Hook	Writes Left Handed	Black Bandanna	Scared of Sharks
Barnaby Blue	Map Reader	Iron Hook	Writes Right Handed	Black Bandanna	Sneezes at Pepper
Captain Charles	Sails Clinger	Brass Spyglass	Writes Right Handed	Black Bandanna	Scared of Sharks
Salty Sam	Ship Cook	Green Parrot	Writes Right Handed	Red Bandanna	Hates Seaweed
Patchy Pete	Cannon Loader	Wooden Leg	Writes Right Handed	Black Bandanna	Sneezes at Pepper
Calico Jack	Deck Scrubber	Iron Hook	Writes Right Handed	Red Bandanna	Hates Seaweed
Anne Bonny	Cannon Loader	Wooden Leg	Writes Right Handed	Red Bandanna	Hates Seaweed
Captain Flint	Deck Scrubber	Wooden Leg	Writes Left Handed	Red Bandanna	Hates Seaweed
Ben Gunn	Cannon Loader	Shiny Cutlass	Writes Left Handed	Blue Bandanna	Scared of Sharks
Grace O Malley	Sails Clinger	Shiny Cutlass	Writes Right Handed	Blue Bandanna	Hates Seaweed
Mr Smee	Sails Clinger	Shiny Cutlass	Writes Right Handed	Black Bandanna	Hates Seaweed
Black Dog	Map Reader	Shiny Cutlass	Writes Left Handed	Blue Bandanna	Sneezes at Pepper
Pegleg Pete	Cannon Loader	Wooden Leg	Writes Right Handed	Red Bandanna	Sneezes at Pepper
Captain Kidd	Sails Clinger	Green Parrot	Writes Left Handed	Blue Bandanna	Hates Seaweed
Cutlass Kate	Sails Clinger	Green Parrot	Writes Right Handed	Red Bandanna	Sneezes at Pepper
Red Beard	Map Reader	Iron Hook	Writes Left Handed	Red Bandanna	Scared of Sharks
Billy Bones	Map Reader	Wooden Leg	Writes Right Handed	Red Bandanna	Hates Seaweed
Jolly Jean	Cannon Loader	Shiny Cutlass	Writes Left Handed	Red Bandanna	Hates Seaweed
Captain Hook	Ship Cook	Green Parrot	Writes Right Handed	Blue Bandanna	Sneezes at Pepper
Jolly Roger	Sails Clinger	Green Parrot	Writes Left Handed	Black Bandanna	Sneezes at Pepper

CLUE 1 Addition

We need to count all the coconut cups in the kitchen to find the first clue.

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

T																T
4	9	10	14	6	15	15	19	6	20	18	7	10	3	20	7	4

															T
9	19	14	10	19	17	2	10	10	20	8	19	2	2	7	4

$3 + 1 = \square \rightarrow \text{[T]}$

$1 + 1 = \square \rightarrow \text{[R]}$

$6 + 2 = \square \rightarrow \text{[P]}$

$7 + 3 = \square \rightarrow \text{[E]}$

$7 + 2 = \square \rightarrow \text{[H]}$

$6 + 11 = \square \rightarrow \text{[G]}$

$9 + 9 = \square \rightarrow \text{[D]}$

$11 + 9 = \square \rightarrow \text{[N]}$

$3 + 3 = \square \rightarrow \text{[I]}$

$4 + 3 = \square \rightarrow \text{[O]}$

$14 + 5 = \square \rightarrow \text{[A]}$

$2 + 1 = \square \rightarrow \text{[S]}$

$4 + 11 = \square \rightarrow \text{[L]}$

$4 + 10 = \square \rightarrow \text{[V]}$

Scratch space:

CLUE 2

The pirate dropped some shiny pearls on the deck. Let us see how many are left.

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

The diagram shows two rows of boxes, each containing a number. The top row has 16 boxes with the following values from left to right: 15, 12, 7, 13, 3, 7, 18, 5, 9, 15, 12, 1, 7, 4, 16, 8, 1, 15, 7, 13. The bottom row has 16 boxes with the following values from left to right: 16, 1, 15, 12, 15, 12, 7, 8, 1, 6, 12, 15, 12, 18, 3, 11. In the top row, the first box (15), the tenth box (15), and the eighteenth box (15) are highlighted orange and contain the letter 'T'. In the bottom row, the third box (15), the fifth box (15), and the twelfth box (15) are highlighted orange and contain the letter 'T'.

$17 - 2 = \boxed{} \rightarrow \boxed{\text{T}}$

$7 - 2 = \boxed{} \rightarrow \boxed{\text{K}}$

$20 - 9 = \boxed{} \rightarrow \boxed{\text{D}}$

$$5 - 2 = \boxed{} \rightarrow \boxed{\text{N}}$$

$$3 - 2 = \boxed{} \rightarrow \boxed{1}$$

$$19 - 7 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$10 - 2 = \boxed{} \rightarrow \boxed{\text{R}}$$

$$20 - 2 = \boxed{} \rightarrow \boxed{\text{A}}$$

$20 - 7 = \boxed{} \rightarrow \boxed{\text{S}}$

$9 - 3 = \boxed{} \rightarrow \boxed{\mathbf{G}}$

$12 - 8 = \boxed{} \rightarrow \boxed{\text{F}}$

$$11 - 2 = \boxed{} \rightarrow \boxed{\text{Y}}$$

$10 - 3 = \boxed{} \rightarrow \boxed{\text{E}}$

$18 - 2 = \boxed{} \rightarrow \boxed{\text{W}}$

Scratch space:

CLUE 3 Skip counting

We must count the pirate boots by twos to see who walked down the path.

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

T										T				
36	39	28	18	50	28	8	20	55	36	39	45	28	35	
							T			T				
16	28	35	30	18	28	24	36	70	18	36	28	12	45	50
18	28	8	100	28	28	24								

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

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, __, 14, 16 → **P**

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

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

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, __, 55, 60 → **N**

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, __, 40, 45 → **F**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, __, 20, 22 → **S**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, __, 42, 45 → **H**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, __, 26, 28 → **D**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, __, 22, 24 → **K**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, __, 30, 32 → **E**

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

Skip-count by 10s. Fill the blank: 10, 20, __, 40, 50 → **U**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, __, 75, 80 → **O**

Scratch space:

CLUE 4 Place value

The locked chest needs ten-packs of crackers and single crackers to open it.

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

A											A			A			A
89	64	49	34	68	62	56	49	30	75	64	89	79	75	89	79	79	89
	A											A					
78	89	42	60	30	93	56	34	79	56	62	30	42	89	79	75		

What number has 8 tens and 9 ones? → **A**

What number has 9 tens and 3 ones? → **F**

What number has 7 tens and 9 ones? → **N**

What number has 6 tens and 2 ones? → **H**

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

What number has 6 tens and 0 ones? → **L**

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

What number has 3 tens and 0 ones? → **E**

What number has 7 tens and 8 ones? → **W**

What number has 4 tens and 9 ones? → **R**

What number has 5 tens and 6 ones? → **T**

What number has 6 tens and 8 ones? → **G**

What number has 3 tens and 4 ones? → **I**

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

Scratch space:

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

We have five map pieces but we need eight. How many more must we find?

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:

$9 + \underline{\quad} = 13$

$5 + \underline{\quad} = 11$

$5 + \underline{\quad} = 6$

$3 + \underline{\quad} = 14$

$4 + \underline{\quad} = 12$

$4 + \underline{\quad} = 11$

$9 + \underline{\quad} = 18$

$3 + \underline{\quad} = 8$

$3 + \underline{\quad} = 15$

$3 + \underline{\quad} = 13$

$10 + \underline{\quad} = 12$

Step 2 - cross out the sentence with each answer:

1. The villain takes the captain's compass, then swings away on a long rope.
2. The villain steals the gold doubloons, then escapes in a wooden rowboat.
3. The villain hides the treasure map, then swings away on a long rope.
4. The villain grabs the golden key, then runs across the sandy beach.
5. The villain grabs the golden key, then escapes in a wooden rowboat.
6. The villain swipes the diamond ring, then swims to the secret cave.
7. The villain takes the captain's compass, then escapes in a wooden rowboat.
8. The villain takes the captain's compass, then sails away on a fast sloop.
9. The villain takes the captain's compass, then runs across the sandy beach.
10. The villain swipes the diamond ring, then escapes in a wooden rowboat.
11. The villain grabs the golden key, then sails away on a fast sloop.
12. The villain steals the gold doubloons, then runs across the sandy beach.

Answer Key

The Mystery of the Black Cove Treasure

Culprit: Anne Bonny

Cannon Loader · Wooden Leg · Writes Right Handed · Red Bandanna · Hates Seaweed

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

Clue 1 (Addition): "THE VILLAIN DOES NOT HAVE A GREEN PARROT"

$3 + 1 = 4$ (T) · $1 + 1 = 2$ (R) · $6 + 2 = 8$ (P) · $7 + 3 = 10$ (E) · $7 + 2 = 9$ (H) · $6 + 11 = 17$ (G) · $9 + 9 = 18$ (D) · $11 + 9 = 20$ (N) · $3 + 3 = 6$ (I) · $4 + 3 = 7$ (O) · $14 + 5 = 19$ (A) · $2 + 1 = 3$ (S) · $4 + 11 = 15$ (L) · $4 + 10 = 14$ (V)

Clue 2 (Subtraction): "THE SNEAKY THIEF WRITES WITH THE RIGHT HAND"

$17 - 2 = 15$ (T) · $7 - 2 = 5$ (K) · $20 - 9 = 11$ (D) · $5 - 2 = 3$ (N) · $3 - 2 = 1$ (I) · $19 - 7 = 12$ (H) · $10 - 2 = 8$ (R) · $20 - 2 = 18$ (A) · $20 - 7 = 13$ (S) · $9 - 3 = 6$ (G) · $12 - 8 = 4$ (F) · $11 - 2 = 9$ (Y) · $10 - 3 = 7$ (E) · $18 - 2 = 16$ (W)

Clue 3 (Skip counting): "THE SNEAKY THIEF REFUSED TO STEP IN SEAWEED"

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, __, 39, $42 = 36$ (T) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, __, 14, $16 = 12$ (P) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, __, 110, $120 = 100$ (W) · Skip-count by 2s. Fill the blank: 2, 4, 6, __, 10, $12 = 8$ (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 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, __, 55, $60 = 50$ (N) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, __, 50, $55 = 45$ (I) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, __, 40, $45 = 35$ (F) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, __, 20, $22 = 18$ (S) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, __, 42, $45 = 39$ (H) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, __, 26, $28 = 24$ (D) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, __, 22, $24 = 20$ (K) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, __, 30, $32 = 28$ (E) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, __, 18, $20 = 16$ (R) · Skip-count by 10s. Fill the blank: 10, 20, __, 40, $50 = 30$ (U) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, __, 75, $80 = 70$ (O)

Clue 4 (Place value): "A BRIGHT RED BANDANNA WAS LEFT IN THE SAND"

What number has 8 tens and 9 ones? = 89 (A) · What number has 9 tens and 3 ones? = 93 (F) · What number has 7 tens and 9 ones? = 79 (N) · What number has 6 tens and 2 ones? = 62 (H) · What number has 7 tens and 5 ones? = 75 (D) · What number has 6 tens and 0 ones? = 60 (L) · What number has 4 tens and 2 ones? = 42 (S) · What number has 3 tens and 0 ones? = 30 (E) · What number has 7 tens and 8 ones? = 78 (W) · What number has 4 tens and 9 ones? = 49 (R) · What number has 5 tens and 6 ones? = 56 (T) · What number has 6 tens and 8 ones? = 68 (G) · What number has 3 tens and 4 ones? = 34 (I) · What number has 6 tens and 4 ones? = 64 (B)

Clue 5 (Missing addends): surviving statement is box 3 → Anne Bonny

$9 + \underline{\quad} = 13 = 4$ · $5 + \underline{\quad} = 11 = 6$ · $5 + \underline{\quad} = 6 = 1$ · $3 + \underline{\quad} = 14 = 11$ · $4 + \underline{\quad} = 12 = 8$ · $4 + \underline{\quad} = 11 = 7$ · $9 + \underline{\quad} = 18 = 9$ · $3 + \underline{\quad} = 8 = 5$ · $3 + \underline{\quad} = 15 = 12$ · $3 + \underline{\quad} = 13 = 10$ · $10 + \underline{\quad} = 12 = 2$