



# 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.

|              |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |              |
|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| <div>T</div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div>T</div> |
| 4            | 9           | 10          | 14          | 6           | 15          | 15          | 19          | 6           | 20          | 18          | 7           | 10          | 3           | 20          | 7           | 4            |

  

|             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |              |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div>T</div> |
| 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.

Diagram illustrating a sequence of numbers arranged in two rows, with some boxes highlighted in orange and labeled 'T'.

Top Row (18 boxes):

- Box 1: Orange, labeled 'T' (Number: 15)
- Box 2: White (Number: 12)
- Box 3: White (Number: 7)
- Box 4: White (Number: 13)
- Box 5: White (Number: 3)
- Box 6: White (Number: 7)
- Box 7: White (Number: 18)
- Box 8: White (Number: 5)
- Box 9: White (Number: 9)
- Box 10: Orange, labeled 'T' (Number: 15)
- Box 11: White (Number: 12)
- Box 12: White (Number: 1)
- Box 13: White (Number: 7)
- Box 14: White (Number: 4)
- Box 15: White (Number: 16)
- Box 16: White (Number: 8)
- Box 17: White (Number: 1)
- Box 18: Orange, labeled 'T' (Number: 15)
- Box 19: White (Number: 7)
- Box 20: White (Number: 13)

Bottom Row (14 boxes):

- Box 1: White (Number: 16)
- Box 2: White (Number: 1)
- Box 3: Orange, labeled 'T' (Number: 15)
- Box 4: White (Number: 12)
- Box 5: Orange, labeled 'T' (Number: 15)
- Box 6: White (Number: 12)
- Box 7: White (Number: 7)
- Box 8: White (Number: 8)
- Box 9: White (Number: 1)
- Box 10: White (Number: 6)
- Box 11: White (Number: 12)
- Box 12: Orange, labeled 'T' (Number: 15)
- Box 13: White (Number: 12)
- Box 14: White (Number: 18)
- Box 15: White (Number: 3)
- Box 16: White (Number: 11)

$17 - 2 = \boxed{\phantom{00}} \rightarrow \boxed{\text{T}}$

$7 - 2 = \boxed{\phantom{00}} \rightarrow \boxed{\text{K}}$

$20 - 9 = \square \rightarrow \mathbf{D}$

$$5 - 2 = \boxed{\phantom{00}} \rightarrow \boxed{\text{N}}$$

$$3 - 2 = \boxed{\phantom{00}} \rightarrow \boxed{1}$$

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

$$10 - 2 = \boxed{\phantom{00}} \rightarrow \boxed{\text{R}}$$

$$20 - 2 = \boxed{\phantom{00}} \rightarrow \boxed{\text{A}}$$

20 - 7 =  → **S**

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

$12 - 8 = \boxed{\phantom{00}} \rightarrow \boxed{\text{F}}$

$11 - 2 = \boxed{\phantom{00}} \rightarrow \boxed{\text{Y}}$

$10 - 3 = \boxed{\phantom{00}} \rightarrow \boxed{\text{E}}$

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

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

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