



The Golden Spyglass Mystery

Grade 2 math · Subtraction, Addition, Place value, Rounding, Missing addends · Reading level grades 3-4

Detective: _____ Date: _____

Someone has stolen the Golden Spyglass from the harbor master of the Sunny Shallows! A mysterious pirate ship was seen sailing away into the fog. We must gather clues, solve the math, and find the rogue pirate who took it!

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	SAILING STYLE	PIRATE GEAR	BOOT COLOR	HAIR STYLE	SECRET FEAR
Salty Sam	sails a swift sloop	tames a wild parrot	wears black boots	wild orange hair	sneezes at sea salt
Henry Morgan	rides a giant crab	tames a wild parrot	wears brown boots	wild orange hair	hates cold water
Long John Silver	swings on a thick rope	wields a shiny hook	wears black boots	braided black beard	hates cold water
Scurvy Steve	swings on a thick rope	wields a shiny hook	wears brown boots	braided black beard	fears loud parrots
Captain Barnaby	rides a giant crab	has a wooden pegleg	wears black boots	curly gray hair	sneezes at sea salt
Calico Jack	uses a grappling hook	wears a tricorn hat	wears black boots	wild orange hair	sneezes at sea salt
Cutlass Cody	sails a swift sloop	wears a tricorn hat	wears brown boots	wild orange hair	hates cold water
Marina Wave	swings on a thick rope	tames a wild parrot	wears brown boots	curly gray hair	fears loud parrots
Mary Read	rides a giant crab	wears a tricorn hat	wears black boots	braided black beard	hates cold water
Captain Redbeard	swings on a thick rope	has a wooden pegleg	wears brown boots	wild orange hair	sneezes at sea salt
Captain Flint	sails a swift sloop	wears a tricorn hat	wears brown boots	braided black beard	hates cold water
Sir Francis Drake	swings on a thick rope	has a wooden pegleg	wears black boots	curly gray hair	hates cold water
Captain Kidd	uses a grappling hook	has a wooden pegleg	wears black boots	braided black beard	hates cold water
Grace OMalley	swings on a thick rope	has a wooden pegleg	wears black boots	braided black beard	fears loud parrots
Blackbeard Edward	rowboats silently	wears a tricorn hat	wears black boots	braided black beard	sneezes at sea salt
Black Bart	uses a grappling hook	carries a brass compass	wears black boots	braided black beard	hates cold water
Barnacle Bill	rides a giant crab	tames a wild parrot	wears black boots	wild orange hair	hates cold water
Captain Hook	swings on a thick rope	wields a shiny hook	wears brown boots	curly gray hair	fears loud parrots
Captain Rusty	sails a swift sloop	tames a wild parrot	wears black boots	braided black beard	hates cold water
Pegleg Pete	swings on a thick rope	wields a shiny hook	wears black boots	curly gray hair	hates cold water
Scurvy Sally	rowboats silently	wears a tricorn hat	wears brown boots	curly gray hair	hates cold water

Subtraction

The suspect paid for lunch with a heavy sack of gold. We can subtract the spent coins to see how much loot is left!

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

$$58 - 37 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$50 - 3 = \boxed{} \rightarrow \mathbf{S}$$

$101 - 38 = \boxed{} \rightarrow \boxed{\text{D}}$

53 - 17 = → **E**

$78 - 11 = \boxed{} \rightarrow \boxed{\text{N}}$

$20 - 5 = \boxed{} \rightarrow \boxed{\text{L}}$

$$89 - 11 = \boxed{} \rightarrow \boxed{}$$

$$54 - 6 = \boxed{} \rightarrow \boxed{0}$$

$$86 - 35 = \boxed{} \rightarrow \boxed{\text{K}}$$

$40 - 2 = \boxed{} \rightarrow \boxed{\text{Y}}$

$90 - 40 = \boxed{} \rightarrow \boxed{\text{F}}$

$$105 - 39 = \boxed{} \rightarrow \boxed{\text{H}}$$

$34 - 6 = \boxed{} \rightarrow \boxed{\mathbf{A}}$

$100 - 12 = \boxed{} \rightarrow \boxed{\text{W}}$

Scratch space:

CLUE 2 Addition

The ship master counted the crates of hardtack biscuit on the deck. Add these two piles together to find the grand total!

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

W										
95	49	81	77	85	21	59	42	87	96	55

42	77	77	71	91	72	22	21	71	41	22	21	71	70	49	41	96

$$66 + 29 = \boxed{} \rightarrow \boxed{\text{W}}$$

$$16 + 25 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$60 + 27 = \boxed{} \rightarrow \boxed{\text{L}}$$

$$23 + 26 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$34 + 43 = \boxed{} \rightarrow \boxed{\text{O}}$$

$$33 + 52 = \boxed{} \rightarrow \boxed{\text{U}}$$

$$45 + 25 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$8 + 13 = \boxed{} \rightarrow \boxed{\text{N}}$$

$$48 + 33 = \boxed{} \rightarrow \boxed{\text{F}}$$

$$34 + 37 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$35 + 37 = \boxed{} \rightarrow \boxed{\text{R}}$$

$$30 + 61 = \boxed{} \rightarrow \boxed{\text{P}}$$

$$38 + 17 = \boxed{} \rightarrow \boxed{\text{C}}$$

$$18 + 41 = \boxed{} \rightarrow \boxed{\text{D}}$$

$$18 + 7 = \boxed{} \rightarrow \boxed{\text{K}}$$

$$29 + 13 = \boxed{} \rightarrow \boxed{\text{B}}$$

$$38 + 58 = \boxed{} \rightarrow \boxed{\text{A}}$$

$$8 + 14 = \boxed{} \rightarrow \boxed{\text{I}}$$

Scratch space:

CLUE 3 Place value

An old pirate map shows the hideout. Look at the tens and ones in this number to find the correct beach coordinate!

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

T			T																	
68	58	80	68	58	37	80	63	15	69	74	80	32	19	80	84	25	58	80	61	
						T														
69	40	24	84	25	32	68	80	74	15	89	24	32	15	58	80	84				

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

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

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

What number has 5 tens and 8 ones? → **H**

What number has 6 tens and 3 ones? → **F**

What number has 8 tens and 4 ones? → **D**

What number has 6 tens and 9 ones? → **C**

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

What number has 3 tens and 7 ones? → **I**

What number has 7 tens and 4 ones? → **R**

What number has 4 tens and 0 ones? → **O**

What number has 1 ten and 5 ones? → **S**

What number has 8 tens and 0 ones? → **E**

What number has 6 tens and 1 one? → **N**

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

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

Scratch space:

CLUE 4 Rounding

We spotted a flock of seagulls through a foggy spyglass. Round the bird count to the nearest ten to clear up the image!

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

W																
30	600	40	60	400	80	500	700	300	60	80	90	70	300	700	20	200
70	600	700	900	500	800	700	50	900								

Round 32 to the nearest ten → **W**

Round 93 to the nearest ten → **G**

Round 23 to the nearest ten → **C**

Round 174 to the nearest hundred → **K**

Round 71 to the nearest ten → **B**

Round 786 to the nearest hundred → **H**

Round 441 to the nearest hundred → **U**

Round 76 to the nearest ten → **N**

Round 562 to the nearest hundred → **E**

Round 47 to the nearest ten → **I**

Round 64 to the nearest ten → **O**

Round 900 to the nearest hundred → **R**

Round 674 to the nearest hundred → **A**

Round 276 to the nearest hundred → **L**

Round 38 to the nearest ten → **F**

Round 470 to the nearest hundred → **D**

Scratch space:

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

A treasure chest needs a certain number of magic keys to open, but some are missing. Find the missing number to unlock it!

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:

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

$10 + \underline{\quad} = 15$

$5 + \underline{\quad} = 8$

$1 + \underline{\quad} = 2$

$9 + \underline{\quad} = 11$

$7 + \underline{\quad} = 14$

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

$4 + \underline{\quad} = 10$

$8 + \underline{\quad} = 16$

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

$4 + \underline{\quad} = 15$

Step 2 - cross out the sentence with each answer:

1. The villain swings on a thick rope from the mast, then tips a fancy tricorn hat to the crowd.
2. The villain rides a giant crab up the beach, then checks a brass compass to find the path.
3. The villain uses a rusty grappling hook to climb, then checks a brass compass to find the path.
4. The villain uses a rusty grappling hook to climb, then thumps along with a wooden pegleg.
5. The villain sails a swift sloop into the harbor, then tames a wild parrot to distract the guard.
6. The villain swings on a thick rope from the mast, then wields a shiny hook to snag the treasure.
7. The villain rowboats silently through the mist, then tips a fancy tricorn hat to the crowd.
8. The villain rides a giant crab up the beach, then thumps along with a wooden pegleg.
9. The villain sails a swift sloop into the harbor, then checks a brass compass to find the path.
10. The villain swings on a thick rope from the mast, then tames a wild parrot to distract the guard.
11. The villain rides a giant crab up the beach, then wields a shiny hook to snag the treasure.
12. The villain rides a giant crab up the beach, then tips a fancy tricorn hat to the crowd.

Answer Key

The Golden Spyglass Mystery

Culprit: Captain Kidd

uses a grappling hook · has a wooden pegleg · wears black boots · braided black beard · hates cold water

Trail: Start 21 → Clue 1 17 → Clue 2 11 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Subtraction): "THE THIEF DOES NOT WIELD A SHINY HOOK"

$58 - 37 = 21$ (T) · $50 - 3 = 47$ (S) · $101 - 38 = 63$ (D) · $53 - 17 = 36$ (E) · $78 - 11 = 67$ (N) · $20 - 5 = 15$ (L) · $89 - 11 = 78$ (I) · $54 - 6 = 48$ (O) · $86 - 35 = 51$ (K) · $40 - 2 = 38$ (Y) · $90 - 40 = 50$ (F) · $105 - 39 = 66$ (H) · $34 - 6 = 28$ (A) · $100 - 12 = 88$ (W)

Clue 2 (Addition): "WE FOUND BLACK BOOTPRINTS IN THE SAND"

$66 + 29 = 95$ (W) · $16 + 25 = 41$ (S) · $60 + 27 = 87$ (L) · $23 + 26 = 49$ (E) · $34 + 43 = 77$ (O) · $33 + 52 = 85$ (U) · $45 + 25 = 70$ (H) · $8 + 13 = 21$ (N) · $48 + 33 = 81$ (F) · $34 + 37 = 71$ (T) · $35 + 37 = 72$ (R) · $30 + 61 = 91$ (P) · $38 + 17 = 55$ (C) · $18 + 41 = 59$ (D) · $18 + 7 = 25$ (K) · $29 + 13 = 42$ (B) · $38 + 58 = 96$ (A) · $8 + 14 = 22$ (I)

Clue 3 (Place value): "THE THIEF SCREAMED WHEN COLD WATER SPLASHED"

What number has 6 tens and 8 ones? = 68 (T) · What number has 8 tens and 9 ones? = 89 (P) · What number has 1 ten and 9 ones? = 19 (M) · What number has 5 tens and 8 ones? = 58 (H) · What number has 6 tens and 3 ones? = 63 (F) · What number has 8 tens and 4 ones? = 84 (D) · What number has 6 tens and 9 ones? = 69 (C) · What number has 3 tens and 2 ones? = 32 (A) · What number has 3 tens and 7 ones? = 37 (I) · What number has 7 tens and 4 ones? = 74 (R) · What number has 4 tens and 0 ones? = 40 (O) · What number has 1 ten and 5 ones? = 15 (S) · What number has 8 tens and 0 ones? = 80 (E) · What number has 6 tens and 1 one? = 61 (N) · What number has 2 tens and 5 ones? = 25 (W) · What number has 2 tens and 4 ones? = 24 (L)

Clue 4 (Rounding): "WE FOUND A LONG BLACK BEARD HAIR"

Round 32 to the nearest ten = 30 (W) · Round 93 to the nearest ten = 90 (G) · Round 23 to the nearest ten = 20 (C) · Round 174 to the nearest hundred = 200 (K) · Round 71 to the nearest ten = 70 (B) · Round 786 to the nearest hundred = 800 (H) · Round 441 to the nearest hundred = 400 (U) · Round 76 to the nearest ten = 80 (N) · Round 562 to the nearest hundred = 600 (E) · Round 47 to the nearest ten = 50 (I) · Round 64 to the nearest ten = 60 (O) · Round 900 to the nearest hundred = 900 (R) · Round 674 to the nearest hundred = 700 (A) · Round 276 to the nearest hundred = 300 (L) · Round 38 to the nearest ten = 40 (F) · Round 470 to the nearest hundred = 500 (D)

Clue 5 (Missing addends): surviving statement is box 4 → Captain Kidd

$7 + \underline{\quad} = 19$ = 12 · $10 + \underline{\quad} = 15$ = 5 · $5 + \underline{\quad} = 8$ = 3 · $1 + \underline{\quad} = 2$ = 1 · $9 + \underline{\quad} = 11$ = 2 · $7 + \underline{\quad} = 14$ = 7 · $8 + \underline{\quad} = 18$ = 10 · $4 + \underline{\quad} = 10$ = 6 · $8 + \underline{\quad} = 16$ = 8 · $2 + \underline{\quad} = 11$ = 9 · $4 + \underline{\quad} = 15$ = 11