



The Mystery of the Golden Spyglass

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

Detective: _____ Date: _____

The Pelican Point Lighthouse has been robbed! A sneaky pirate snuck in at high tide and swiped the famous Golden Spyglass. Without it, the ships cannot find their way back to Scurvy Sandbar. You must examine the clues, match the pirate traits, and find out who stole the spyglass before the tide rolls in!

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 scallywag is _____

Possible suspects

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

NAME	PIRATE SKILL	SIGNATURE GEAR	SAILING HAND	BEARD COLOR	SECRET WEAKNESS
Calico Jack	map reading	parrot pet	right handed	red beard	soap bubbles
Anchor Andy	cannon blasting	gold earring	right handed	gray beard	tickle feathers
Captain Kidd	map reading	parrot pet	left handed	black beard	lemon juice
Salty Sarah	sword dueling	feathered hat	right handed	gray beard	tickle feathers
Blackbeard	sword dueling	wooden leg	left handed	red beard	soap bubbles
Plank Walker	rope swinging	hook hand	left handed	red beard	soap bubbles
Doubloon Danny	map reading	feathered hat	left handed	black beard	soap bubbles
Captain Hook	map reading	wooden leg	right handed	gray beard	tickle feathers
Shivering Sherry	sail patching	hook hand	right handed	red beard	tickle feathers
Marina Maze	cannon blasting	parrot pet	right handed	gray beard	soap bubbles
Jolly Roger	rope swinging	hook hand	left handed	black beard	tickle feathers
Henry Morgan	sword dueling	wooden leg	right handed	gray beard	lemon juice
Mary Read	cannon blasting	parrot pet	left handed	gray beard	tickle feathers
Scurvy Sam	sail patching	parrot pet	right handed	gray beard	tickle feathers
Long John	map reading	feathered hat	left handed	gray beard	lemon juice
Anne Bonny	sail patching	gold earring	right handed	gray beard	tickle feathers
Pegleg Pete	rope swinging	feathered hat	right handed	gray beard	soap bubbles
Cutlass Carla	sword dueling	feathered hat	left handed	black beard	tickle feathers
Cannonball Cole	sail patching	hook hand	left handed	gray beard	tickle feathers
Redbeard Ralph	map reading	parrot pet	left handed	red beard	lemon juice
Stormy Stella	map reading	gold earring	left handed	black beard	lemon juice

CLUE 1

The lighthouse radar was damaged during the escape. It only displays ship distances rounded to the nearest ten. We rounded the numbers to find the pirate's escape route!

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

Diagram illustrating the arrangement of boxes and their associated numbers:

Row 1: [T] 700, [] 3700, [] 90, [T] 700, [] 3700, [] 1100, [] 90, [] 430, [] 70, [] 2000, [] 90, [] 130, [] 1700, [] 2000, [T] 700, [] 50, [] 90, [] 300, [] 110

Row 2: [] 300, [] 430, [] 90, [] 300, [T] 700, [] 3700, [] 90, [] 110, [] 90, [] 70, [] 3700, [] 300, [T] 700

Round 725 to the nearest hundred $\rightarrow$ **T**

Round 51 to the nearest ten → **W**

Round 90 to the nearest ten $\rightarrow$ **E**

Round 73 to the nearest ten $\rightarrow$ **D**

Round 1,648 to the nearest thousand → ☐

Round 1,748 to the nearest hundred → **N**

Round 427 to the nearest ten $\rightarrow$ **F**

Round 3,686 to the nearest hundred → **H**

Round 1,121 to the nearest hundred $\rightarrow$

Round 342 to the nearest hundred $\rightarrow$ **A**

Round 126 to the nearest ten $\rightarrow$ **S**

Round 107 to the nearest ten $\rightarrow$ **R**

Scratch space:

CLUE 2

We found the harbor master's logbook with torn pages. By adding up all the barrels of gunpowder left on the dock, we calculated how much weight the thief stole.

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. The top row contains 16 boxes, and the bottom row contains 16 boxes. Some boxes are highlighted in orange and contain the letter 'T'.

Top Row (Left to Right):

- Box 1: Orange, contains 'T' (Number: 6171)
- Box 2: White (Number: 3896)
- Box 3: White (Number: 9712)
- Box 4: White (Number: 5219)
- Box 5: White (Number: 2242)
- Box 6: White (Number: 5219)
- Box 7: White (Number: 5713)
- Box 8: White (Number: 9712)
- Box 9: White (Number: 7318)
- Box 10: Orange, contains 'T' (Number: 6171)
- Box 11: White (Number: 4392)
- Box 12: White (Number: 4439)
- Box 13: Orange, contains 'T' (Number: 7004)
- Box 14: White (Number: 6171)
- Box 15: White (Number: 9712)
- Box 16: White (Number: 5219)

Bottom Row (Left to Right):

- Box 1: White (Number: 4392)
- Box 2: White (Number: 7004)
- Box 3: Orange, contains 'T' (Number: 6171)
- Box 4: White (Number: 3896)
- Box 5: Orange, contains 'T' (Number: 6171)
- Box 6: White (Number: 3896)
- Box 7: White (Number: 9712)
- Box 8: White (Number: 4439)
- Box 9: White (Number: 7004)
- Box 10: White (Number: 9144)
- Box 11: Orange, contains 'T' (Number: 3896)
- Box 12: White (Number: 6171)
- Box 13: White (Number: 3896)
- Box 14: White (Number: 2261)
- Box 15: White (Number: 4509)
- Box 16: White (Number: 9218)

$$4138 + 2033 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$2781 + 2932 = \boxed{} \rightarrow \boxed{\text{P}}$$

$$2510 + 2709 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$2869 + 4449 = \boxed{} \rightarrow \boxed{\text{C}}$$

$$4972 + 4246 = \boxed{} \rightarrow \boxed{\text{D}}$$

$2806 + 6338 = \boxed{} \rightarrow \boxed{\text{G}}$

$1003 + 1239 = \boxed{} \rightarrow \boxed{\text{U}}$

$$4956 + 4756 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$1507 + 2389 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$4572 + 4563 = \boxed{} \rightarrow \boxed{\text{L}}$$

$$1683 + 2756 = \boxed{} \rightarrow \boxed{\text{R}}$$

$2054 + 2455 = \boxed{} \rightarrow \boxed{\text{N}}$

$2139 + 4865 = \boxed{} \rightarrow \boxed{\text{I}}$

$1300 + 961 = \boxed{} \rightarrow \boxed{\text{A}}$

$1446 + 2946 = \boxed{} \rightarrow \boxed{\text{W}}$

$3046 + 4523 = \boxed{} \rightarrow \boxed{0}$

Scratch space:

CLUE 3

Subtraction

The pirate dropped a chest of silver coins. We counted the total capacity of the chest and subtracted the remaining coins to see how many they took.

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

T									T										
2014	6916	1229	7058	7952	8717	6689	8717	5761	2014	2122	8717	2584	4169	3195	5761	7058	8717		

T																
2014	2122	6916	4169	4435	5761	5945	6602	6382	1163	6602	6916	6602	6602	7952	8717	

$$5619 - 3605 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$7400 - 484 = \boxed{} \rightarrow \boxed{\text{I}}$$

$$6940 - 2505 = \boxed{} \rightarrow \boxed{\text{B}}$$

$$8644 - 2699 = \boxed{} \rightarrow \boxed{\text{D}}$$

$$5992 - 1823 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$6517 - 756 = \boxed{} \rightarrow \boxed{\text{A}}$$

$$4539 - 3310 = \boxed{} \rightarrow \boxed{\text{C}}$$

$$6118 - 4955 = \boxed{} \rightarrow \boxed{\text{Y}}$$

$$5331 - 2747 = \boxed{} \rightarrow \boxed{\text{R}}$$

$$9403 - 1451 = \boxed{} \rightarrow \boxed{\text{L}}$$

$$9791 - 1074 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$7505 - 903 = \boxed{} \rightarrow \boxed{\text{G}}$$

$$10415 - 3357 = \boxed{} \rightarrow \boxed{\text{K}}$$

$$7331 - 949 = \boxed{} \rightarrow \boxed{\text{U}}$$

$$7213 - 524 = \boxed{} \rightarrow \boxed{\text{F}}$$

$$4259 - 2137 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$8054 - 4859 = \boxed{} \rightarrow \boxed{\text{M}}$$

Scratch space:

Multiplication facts (1-12)

To search the island quickly, we split our search team into several rows of boats. Multiplying the boats by the crew members per boat gave us our total search power.

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

S															S			
64	28	22	66	96	84	22	66	96	45	81	66	22	18	110	66	9	22	64
														S				
12	81	22	81	25	32	28	110	81	28	81	80	81	64	10	25	11	81	

$$8 \times 8 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$10 \times 11 = \boxed{} \rightarrow \boxed{\text{H}}$$

$9 \times 5 = \boxed{} \rightarrow \mathbf{B}$

$10 \times 1 = \boxed{} \rightarrow \boxed{\text{C}}$

$10 \times 8 = \boxed{} \rightarrow \boxed{\text{L}}$

$9 \times 2 = \boxed{} \rightarrow \boxed{\text{D}}$

$$7 \times 4 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$12 \times 8 = \boxed{} \rightarrow \boxed{\text{Y}}$$

$$5 \times 5 = \boxed{} \rightarrow \boxed{0}$$

$11 \times 2 = \boxed{} \rightarrow \boxed{\text{R}}$

$6 \times 11 = \boxed{} \rightarrow \boxed{\text{A}}$

$$1 \times 9 = \boxed{} \rightarrow \boxed{} \mid$$

$$3 \times 4 = \boxed{} \rightarrow \boxed{\mathbf{W}}$$

$9 \times 9 = \boxed{} \rightarrow \boxed{\text{E}}$

$4 \times 8 = \boxed{} \rightarrow \boxed{\mathbf{N}}$

$7 \times 12 = \boxed{} \rightarrow \boxed{\mathbf{G}}$

$1 \times 11 = \boxed{} \rightarrow \boxed{\text{P}}$

Scratch space:

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

We captured a message written on a piece of hardtack biscuit. We divided the secret code numbers equally among our crew members to solve the final clue.

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:

$96 \div 8 = \boxed{}$

$24 \div 3 = \boxed{}$

$20 \div 10 = \boxed{}$

$16 \div 4 = \boxed{}$

$70 \div 7 = \boxed{}$

$20 \div 4 = \boxed{}$

$72 \div 12 = \boxed{}$

$11 \div 11 = \boxed{}$

$3 \div 1 = \boxed{}$

$110 \div 10 = \boxed{}$

$81 \div 9 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain mended the torn escape sail, then dropped a fancy blue feathered hat.
2. The villain fired a loud warning cannon, then lost a glittering gold earring.
3. The villain decoded the secret treasure map, then scratched the wall with a shiny hook.
4. The villain fired a loud warning cannon, then dropped a fancy blue feathered hat.
5. The villain fenced past the lighthouse guard, then stumped away on a heavy wooden leg.
6. The villain fenced past the lighthouse guard, then dropped a fancy blue feathered hat.
7. The villain mended the torn escape sail, then fed a cracker to a sneaky parrot.
8. The villain mended the torn escape sail, then lost a glittering gold earring.
9. The villain decoded the secret treasure map, then dropped a fancy blue feathered hat.
10. The villain fired a loud warning cannon, then stumped away on a heavy wooden leg.
11. The villain decoded the secret treasure map, then fed a cracker to a sneaky parrot.
12. The villain decoded the secret treasure map, then stumped away on a heavy wooden leg.

Answer Key

The Mystery of the Golden Spyglass

Culprit: Scurvy Sam

sail patching · parrot pet · right handed · gray beard · tickle feathers

Trail: Start 21 → Clue 1 16 → Clue 2 8 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE THIEF DOES NOT WEAR A FEATHERED HAT"

Round 725 to the nearest hundred = 700 (T) · Round 51 to the nearest ten = 50 (W) · Round 90 to the nearest ten = 90 (E) · Round 73 to the nearest ten = 70 (D) · Round 1,648 to the nearest thousand = 2000 (O) · Round 1,748 to the nearest hundred = 1700 (N) · Round 427 to the nearest ten = 430 (F) · Round 3,686 to the nearest hundred = 3700 (H) · Round 1,121 to the nearest hundred = 1100 (I) · Round 342 to the nearest hundred = 300 (A) · Round 126 to the nearest ten = 130 (S) · Round 107 to the nearest ten = 110 (R)

Clue 2 (Addition): "THE SUSPECT WRITES LOGS WITH THE RIGHT HAND"

$4138 + 2033 = 6171$ (T) · $2781 + 2932 = 5713$ (P) · $2510 + 2709 = 5219$ (S) · $2869 + 4449 = 7318$ (C) · $4972 + 4246 = 9218$ (D) · $2806 + 6338 = 9144$ (G) · $1003 + 1239 = 2242$ (U) · $4956 + 4756 = 9712$ (E) · $1507 + 2389 = 3896$ (H) · $4572 + 4563 = 9135$ (L) · $1683 + 2756 = 4439$ (R) · $2054 + 2455 = 4509$ (N) · $2139 + 4865 = 7004$ (I) · $1300 + 961 = 2261$ (A) · $1446 + 2946 = 4392$ (W) · $3046 + 4523 = 7569$ (O)

Clue 3 (Subtraction): "TICKLE FEATHERS MAKE THIS BAD GUY GIGGLE"

$5619 - 3605 = 2014$ (T) · $7400 - 484 = 6916$ (I) · $6940 - 2505 = 4435$ (B) · $8644 - 2699 = 5945$ (D) · $5992 - 1823 = 4169$ (S) · $6517 - 756 = 5761$ (A) · $4539 - 3310 = 1229$ (C) · $6118 - 4955 = 1163$ (Y) · $5331 - 2747 = 2584$ (R) · $9403 - 1451 = 7952$ (L) · $9791 - 1074 = 8717$ (E) · $7505 - 903 = 6602$ (G) · $10415 - 3357 = 7058$ (K) · $7331 - 949 = 6382$ (U) · $7213 - 524 = 6689$ (F) · $4259 - 2137 = 2122$ (H) · $8054 - 4859 = 3195$ (M)

Clue 4 (Multiplication facts (1-12)): "STRAY GRAY BEARD HAIRS WERE ON THE TELESCOPE"

$8 \times 8 = 64$ (S) · $10 \times 11 = 110$ (H) · $9 \times 5 = 45$ (B) · $10 \times 1 = 10$ (C) · $10 \times 8 = 80$ (L) · $9 \times 2 = 18$ (D) · $7 \times 4 = 28$ (T) · $12 \times 8 = 96$ (Y) · $5 \times 5 = 25$ (O) · $11 \times 2 = 22$ (R) · $6 \times 11 = 66$ (A) · $1 \times 9 = 9$ (I) · $3 \times 4 = 12$ (W) · $9 \times 9 = 81$ (E) · $4 \times 8 = 32$ (N) · $7 \times 12 = 84$ (G) · $1 \times 11 = 11$ (P)

Clue 5 (Division facts (1-12)): surviving statement is box 7 → Scurvy Sam

$96 \div 8 = 12$ · $24 \div 3 = 8$ · $20 \div 10 = 2$ · $16 \div 4 = 4$ · $70 \div 7 = 10$ · $20 \div 4 = 5$ · $72 \div 12 = 6$ · $11 \div 11 = 1$ · $3 \div 1 = 3$ · $110 \div 10 = 11$ · $81 \div 9 = 9$