



The Mystery of the Golden Spyglass

Grade 6 math · Multiplication, Subtraction, Addition, Place value, Division · Reading level grades 3-4

Detective: _____ Date: _____

A sneaky pirate has snuck into the Harbor Office and stolen the legendary Golden Spyglass! The victim, our trusty Harbormaster, needs your help. Look for clues left around the docks to find the real culprit!

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 scoundrel is _____

Possible suspects

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

NAME	SIGNATURE WEAPON	PET COMPANION	EYEPATCH SIDE	BANDANA COLOR	FEAR
Red Beard	Cutlass Sword	Screeching Monkey	Left Eye Covered	Blue Bandana	Fear of Spiders
Blackbeard	Hook Hand	Tiny Hermit Crab	Left Eye Covered	Blue Bandana	Fear of Storms
Barbossa	Cutlass Sword	Salty Sea Dog	Left Eye Covered	Blue Bandana	Fear of Spiders
Calico Jack	Hook Hand	Salty Sea Dog	Right Eye Covered	Blue Bandana	Fear of Storms
Captain Flint	Wooden Slingshot	Tiny Hermit Crab	Left Eye Covered	Black Bandana	Fear of Ghosts
Jolly Roger	Heavy Iron Mace	Screeching Monkey	Left Eye Covered	Blue Bandana	Fear of Spiders
Captain Barnacle	Flintlock Pistol	Green Parrot	Left Eye Covered	Blue Bandana	Fear of Spiders
Mary Read	Hook Hand	Salty Sea Dog	Right Eye Covered	Red Bandana	Fear of Storms
Barnaby Blue	Heavy Iron Mace	Squeaking Rat	Left Eye Covered	Black Bandana	Fear of Ghosts
Captain Kidd	Cutlass Sword	Tiny Hermit Crab	Right Eye Covered	Blue Bandana	Fear of Spiders
Marina Wave	Cutlass Sword	Salty Sea Dog	Left Eye Covered	Blue Bandana	Fear of Storms
Captain Drake	Flintlock Pistol	Green Parrot	Left Eye Covered	Blue Bandana	Fear of Ghosts
Billy Bones	Flintlock Pistol	Screeching Monkey	Left Eye Covered	Blue Bandana	Fear of Spiders
Salty Sam	Flintlock Pistol	Squeaking Rat	Right Eye Covered	Blue Bandana	Fear of Spiders
Anne Bonny	Wooden Slingshot	Tiny Hermit Crab	Right Eye Covered	Red Bandana	Fear of Storms
Captain Hook	Wooden Slingshot	Screeching Monkey	Right Eye Covered	Red Bandana	Fear of Spiders
Seaweed Sally	Heavy Iron Mace	Salty Sea Dog	Right Eye Covered	Red Bandana	Fear of Storms
Scurvy Dan	Flintlock Pistol	Green Parrot	Right Eye Covered	Red Bandana	Fear of Ghosts
Blind Pew	Wooden Slingshot	Salty Sea Dog	Right Eye Covered	Blue Bandana	Fear of Ghosts
Scurvy Sue	Cutlass Sword	Screeching Monkey	Left Eye Covered	Red Bandana	Fear of Spiders
Sharkbait Simon	Hook Hand	Screeching Monkey	Right Eye Covered	Blue Bandana	Fear of Storms

Multiplication facts (1-12)

We found crates of supplies stacked on the dock. They are arranged in neat rows and columns. Let us count them using multiplication to reveal our first clue!

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

A number line from 0 to 100. The tens digit of the number is marked with a 'T' in a box. The numbers are: 33, 77, 15, 99, 56, 132, 72, 81, 84, 144, 15, 12, 84, 132, 15, 99, 81, 132, 33. The 'T' is in the box for 33.

$$11 \times 3 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$4 \times 3 = \boxed{} \rightarrow \boxed{\text{L}}$$

$$7 \times 8 = \boxed{} \rightarrow \boxed{\text{C}}$$

$11 \times 9 = \boxed{} \rightarrow \boxed{\text{S}}$

$$11 \times 12 = \boxed{} \rightarrow \boxed{\mathbf{0}}$$

$$8 \times 9 = \boxed{} \rightarrow \boxed{\text{U}}$$

$5 \times 11 = \boxed{} \rightarrow \mathbf{A}$

$3 \times 9 = \square \rightarrow \mathbf{G}$

$11 \times 7 = \boxed{} \rightarrow \mathbf{H}$

$7 \times 12 =$ $\rightarrow$ **D**

$9 \times 9 =$ $\rightarrow$ **N**

$$2 \times 5 = \boxed{} \rightarrow \boxed{\mathbf{V}}$$

$12 \times 12 = \boxed{} \rightarrow \boxed{\text{R}}$

$5 \times 3 = \square \rightarrow \mathbf{E}$

Scratch space:

CLUE 2

The ship cook noticed some hardtack biscuits went missing from the kitchen barrel. Subtract the stolen biscuits from the starting pile to crack the second clue.

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

5861 8969 5861 5826 1223 8952 8065 6900 2888 1223 5789 1851 3165 8952 6900 5861

2190 5861 1323 8952 5789 2174 7581 5861

$$8761 - 2900 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$3849 - 961 = \boxed{} \rightarrow \boxed{\text{W}}$$

9280 - 311 = → **Y**

$$3700 - 1526 = \boxed{} \rightarrow \boxed{}$$

$10331 - 1379 = \boxed{} \rightarrow \boxed{\text{T}}$

$10063 - 4237 = \boxed{} \rightarrow \boxed{\text{P}}$

$$3097 - 907 = \boxed{} \rightarrow \boxed{\text{L}}$$

$10289 - 3389 = \boxed{} \rightarrow \boxed{\text{H}}$

$$4796 - 3473 = \boxed{} \rightarrow \boxed{\text{F}}$$

$3283 - 118 = \boxed{} \rightarrow \boxed{\text{N}}$

$$3569 - 1718 = \boxed{} \rightarrow \boxed{0}$$

6101 - 4878 = → **A**

$11548 - 3967 = \boxed{} \rightarrow \boxed{\text{D}}$

$$8288 - 2499 = \boxed{} \rightarrow \boxed{\text{S}}$$

$12986 - 4921 = \boxed{} \rightarrow \boxed{\text{C}}$

Scratch space:

CLUE 3 Addition

Our young scout is counting the gold coins dropped in the sand. Add all the piles together to get the total and find the third clue!

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

V																		
4111	2150	4591	4591	4920	2150	9867	5945	4920	9867	6759	5945	7130	6207	4920	2452	2150	9867	6246

6699	4326	2150	6592	7377	5945

$2868 + 1243 = \square \rightarrow \text{V}$	$2612 + 1979 = \square \rightarrow \text{L}$	$1139 + 1313 = \square \rightarrow \text{T}$
$1620 + 2706 = \square \rightarrow \text{P}$	$5235 + 4632 = \square \rightarrow \text{N}$	$1127 + 1023 = \square \rightarrow \text{I}$
$3103 + 3596 = \square \rightarrow \text{S}$	$3911 + 2034 = \square \rightarrow \text{R}$	$2251 + 3956 = \square \rightarrow \text{M}$
$3346 + 3246 = \square \rightarrow \text{D}$	$2853 + 4277 = \square \rightarrow \text{O}$	$3935 + 3442 = \square \rightarrow \text{E}$
$1973 + 2947 = \square \rightarrow \text{A}$	$3922 + 2837 = \square \rightarrow \text{F}$	$4206 + 2040 = \square \rightarrow \text{Y}$

Scratch space:

CLUE 4 Place value

The compass dial has numbers in the tens and ones place. If we look closely at the digit in the tens place, we can unlock the fourth clue.

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

A				A													
60	50	80	600	60	8000	90	900	6000	20	100	300	200	1000	100	900	80	700

	A					
70	60	50	100	200	6000	80

What is the value of the 6 in 18,861? → **A**

What is the value of the 3 in 72,317? → **U**

What is the value of the 9 in 143,294? → **D**

What is the value of the 8 in 296,686? → **T**

What is the value of the 8 in 138,457? → **N**

What is the value of the 1 in 48,125? → **L**

What is the value of the 9 in 204,924? → **O**

What is the value of the 5 in 232,757? → **S**

What is the value of the 1 in 221,789? → **C**

What is the value of the 7 in 598,754? → **H**

What is the value of the 7 in 34,975? → **W**

What is the value of the 2 in 901,827? → **B**

What is the value of the 6 in 85,649? → **R**

What is the value of the 2 in 588,206? → **E**

What is the value of the 6 in 516,599? → **F**

Scratch space:

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

The crew is sharing their juicy apples fairly among the deckhands. Divide the fruit into equal piles to discover 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:

$10 \div 2 = \boxed{}$

$10 \div 1 = \boxed{}$

$48 \div 8 = \boxed{}$

$120 \div 10 = \boxed{}$

$132 \div 12 = \boxed{}$

$3 \div 3 = \boxed{}$

$18 \div 9 = \boxed{}$

$77 \div 11 = \boxed{}$

$28 \div 7 = \boxed{}$

$96 \div 12 = \boxed{}$

$36 \div 12 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain unlocks the treasure chest, then escapes into the foggy swamp.
2. The villain steals the golden spyglass, then escapes into the foggy swamp.
3. The villain digs up a sandy path, then climbs up to the crow nest.
4. The villain unlocks the treasure chest, then climbs up to the crow nest.
5. The villain swings from a ship rope, then escapes into the foggy swamp.
6. The villain swings from a ship rope, then rows away on a wooden dinghy.
7. The villain digs up a sandy path, then hides behind the rum barrels.
8. The villain swings from a ship rope, then climbs up to the crow nest.
9. The villain steals the golden spyglass, then rows away on a wooden dinghy.
10. The villain digs up a sandy path, then rows away on a wooden dinghy.
11. The villain steals the golden spyglass, then sails into the sunset.
12. The villain sneaks past the harbor guard, then rows away on a wooden dinghy.

Answer Key

The Mystery of the Golden Spyglass

Culprit: Jolly Roger

Heavy Iron Mace · Screeching Monkey · Left Eye Covered · Blue Bandana · Fear of Spiders

Trail: Start 21 → Clue 1 15 → Clue 2 9 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE SCOUNDREL DOES NOT HAVE A SEA DOG"

$11 \times 3 = 33$ (T) · $4 \times 3 = 12$ (L) · $7 \times 8 = 56$ (C) · $11 \times 9 = 99$ (S) · $11 \times 12 = 132$ (O) · $8 \times 9 = 72$ (U) · $5 \times 11 = 55$ (A) · $3 \times 9 = 27$ (G) · $11 \times 7 = 77$ (H) · $7 \times 12 = 84$ (D) · $9 \times 9 = 81$ (N) · $2 \times 5 = 10$ (V) · $12 \times 12 = 144$ (R) · $5 \times 3 = 15$ (E)

Clue 2 (Subtraction): "EYEPATCH WAS ON THE LEFT SIDE"

$8761 - 2900 = 5861$ (E) · $3849 - 961 = 2888$ (W) · $9280 - 311 = 8969$ (Y) · $3700 - 1526 = 2174$ (I) · $10331 - 1379 = 8952$ (T) · $10063 - 4237 = 5826$ (P) · $3097 - 907 = 2190$ (L) · $10289 - 3389 = 6900$ (H) · $4796 - 3473 = 1323$ (F) · $3283 - 118 = 3165$ (N) · $3569 - 1718 = 1851$ (O) · $6101 - 4878 = 1223$ (A) · $11548 - 3967 = 7581$ (D) · $8288 - 2499 = 5789$ (S) · $12986 - 4921 = 8065$ (C)

Clue 3 (Addition): "VILLAIN RAN FROM A TINY SPIDER"

$2868 + 1243 = 4111$ (V) · $2612 + 1979 = 4591$ (L) · $1139 + 1313 = 2452$ (T) · $1620 + 2706 = 4326$ (P) · $5235 + 4632 = 9867$ (N) · $1127 + 1023 = 2150$ (I) · $3103 + 3596 = 6699$ (S) · $3911 + 2034 = 5945$ (R) · $2251 + 3956 = 6207$ (M) · $3346 + 3246 = 6592$ (D) · $2853 + 4277 = 7130$ (O) · $3935 + 3442 = 7377$ (E) · $1973 + 2947 = 4920$ (A) · $3922 + 2837 = 6759$ (F) · $4206 + 2040 = 6246$ (Y)

Clue 4 (Place value): "A STRAND OF BLUE CLOTH WAS LEFT"

What is the value of the 6 in $18,861$? = 60 (A) · What is the value of the 3 in $72,317$? = 300 (U) · What is the value of the 9 in $143,294$? = 90 (D) · What is the value of the 8 in $296,686$? = 80 (T) · What is the value of the 8 in $138,457$? = 8000 (N) · What is the value of the 1 in $48,125$? = 100 (L) · What is the value of the 9 in $204,924$? = 900 (O) · What is the value of the 5 in $232,757$? = 50 (S) · What is the value of the 1 in $221,789$? = 1000 (C) · What is the value of the 7 in $598,754$? = 700 (H) · What is the value of the 7 in $34,975$? = 70 (W) · What is the value of the 2 in $901,827$? = 20 (B) · What is the value of the 6 in $85,649$? = 600 (R) · What is the value of the 2 in $588,206$? = 200 (E) · What is the value of the 6 in $516,599$? = 6000 (F)

Clue 5 (Division facts (1-12)): surviving statement is box 9 → Jolly Roger

$10 \div 2 = 5$ · $10 \div 1 = 10$ · $48 \div 8 = 6$ · $120 \div 10 = 12$ · $132 \div 12 = 11$ · $3 \div 3 = 1$ · $18 \div 9 = 2$ · $77 \div 11 = 7$ · $28 \div 7 = 4$ · $96 \div 12 = 8$ · $36 \div 12 = 3$