The Mystery of Roanoke Island

Grade 4 math · Rounding, Addition, Subtraction, Multiplication, Division · Reading level grades 5-6

Detective: _____ **Date:** _____

When Governor John White returned to Roanoke Island, he found the settlement empty, but someone left encoded trail markers behind. Solve the math clues to identify the rogue settler who concealed the colony's missing records.

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 Saboteur is _____

Possible suspects

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

NAME	SPECIALTY	TOOL	WRITING HAND	CLOAK COLOR	WEAKNESS
Hugh Albridge	Foraging	Brass Compass	Right Handed	Grey Cloak	Loud Bell
Peter Little	Navigation	Brass Compass	Left Handed	Grey Cloak	Smoke Signal
James Hynde	Carpentry	Iron Chisel	Right Handed	Navy Cloak	Smoke Signal
William Willes	Mapmaking	Oak Mallet	Left Handed	Grey Cloak	Lantern Light
Thomas Stevens	Metalwork	Oak Mallet	Left Handed	Brown Cloak	Lantern Light
Thomas Toplis	Navigation	Leather Journal	Right Handed	Navy Cloak	Loud Bell
John Coleman	Mapmaking	Leather Journal	Left Handed	Grey Cloak	Smoke Signal
Cuthbert Sutton	Mapmaking	Leather Journal	Left Handed	Grey Cloak	Loud Bell
John Prat	Foraging	Brass Compass	Left Handed	Brown Cloak	Lantern Light
Arthur Glance	Mapmaking	Brass Compass	Left Handed	Grey Cloak	Loud Bell
Simon Fernandes	Carpentry	Iron Chisel	Left Handed	Grey Cloak	Loud Bell
Richard Berry	Foraging	Leather Journal	Right Handed	Navy Cloak	Loud Bell
Virginia Dare	Mapmaking	Silver Whistle	Left Handed	Grey Cloak	Smoke Signal
Ananias Dare	Navigation	Brass Compass	Left Handed	Grey Cloak	Loud Bell
Wanchese	Foraging	Oak Mallet	Left Handed	Grey Cloak	Loud Bell
Clement Taylor	Mapmaking	Silver Whistle	Right Handed	Navy Cloak	Lantern Light
Roger Prat	Carpentry	Silver Whistle	Left Handed	Navy Cloak	Lantern Light
Eleanor Dare	Carpentry	Silver Whistle	Left Handed	Grey Cloak	Smoke Signal
Nicholas Johnson	Mapmaking	Oak Mallet	Left Handed	Navy Cloak	Loud Bell
Martin Sutton	Navigation	Leather Journal	Left Handed	Brown Cloak	Smoke Signal
John White	Metalwork	Iron Chisel	Left Handed	Brown Cloak	Loud Bell

CLUE 1 Rounding

> Governor White checked the lookout logs, but the distance readings were rounded to the nearest ten miles on the map chart.

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

T						T								T					
700	70	2900	170	500	3700	20	700	2900	1300	90	50	4300	50	230	20	700			
1300	170	2900	500	110	2900	500	700	70	2900	90	130	20	1300	90	230	500	110		

Round 727 to the nearest hundred ☐ → **T**

Round 94 to the nearest ten ☐ → **R**

Round 2,916 to the nearest hundred ☐ → **E**

Round 4,304 to the nearest hundred ☐ → **I**

Round 525 to the nearest hundred ☐ → **A**

Round 132 to the nearest ten ☐ → **J**

Round 66 to the nearest ten ☐ → **H**

Round 231 to the nearest ten ☐ → **N**

Round 172 to the nearest ten ☐ → **S**

Round 24 to the nearest ten ☐ → **O**

Round 1,293 to the nearest hundred ☐ → **U**

Round 112 to the nearest ten ☐ → **L**

Round 50 to the nearest ten ☐ → **D**

Round 3,673 to the nearest hundred ☐ → **B**

Scratch space:

CLUE 2 Addition

The search party gathered all recovered pine tar barrels and combined their totals to inspect the supply count.

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



1632 + 2400 = ☐ → A	6227 + 3182 = ☐ → P	3763 + 3693 = ☐ → T
3007 + 4745 = ☐ → I	2671 + 2593 = ☐ → F	4032 + 3012 = ☐ → R
2914 + 1753 = ☐ → H	4624 + 3690 = ☐ → W	3745 + 5483 = ☐ → S
6074 + 3478 = ☐ → O	2430 + 1681 = ☐ → L	1643 + 3148 = ☐ → E
5092 + 3508 = ☐ → N	3803 + 2450 = ☐ → D	

Scratch space:

CLUE 3 Subtraction

A ledger showed how many iron nails were crafted versus how many were stolen from the workshop chest.

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



9186 - 3954 = ☐ → T

7228 - 2260 = ☐ → D

7506 - 2044 = ☐ → B

1620 - 172 = ☐ → A

13008 - 4751 = ☐ → O

12299 - 4413 = ☐ → E

7200 - 3803 = ☐ → N

8180 - 2339 = ☐ → S

10340 - 3982 = ☐ → I

5844 - 2825 = ☐ → V

12872 - 3893 = ☐ → U

9756 - 4402 = ☐ → L

8059 - 580 = ☐ → H

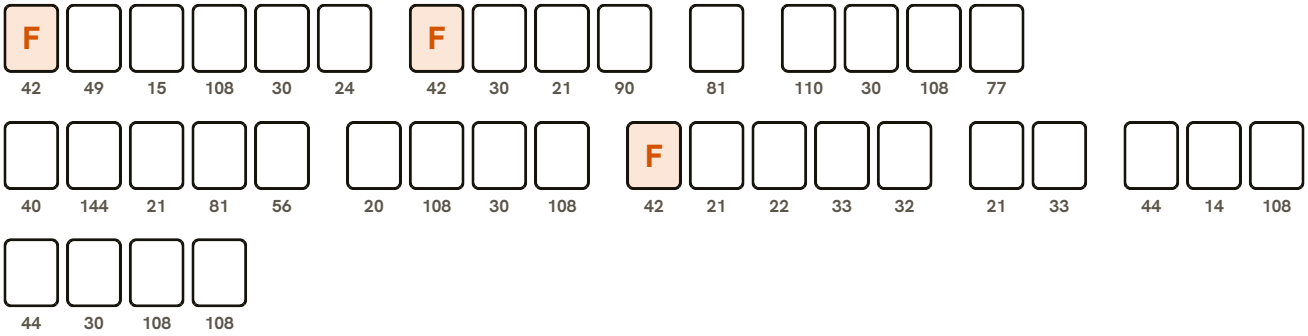
6179 - 1090 = ☐ → C

Scratch space:

CLUE 4 Multiplication facts (1-12)

> The guard commander measured five rows of palisade posts, each containing an equal number of cedar logs.

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



7 × 6 = ☐ → F	2 × 11 = ☐ → U	9 × 10 = ☐ → M
7 × 7 = ☐ → I	9 × 9 = ☐ → A	8 × 7 = ☐ → K
10 × 11 = ☐ → G	12 × 12 = ☐ → L	12 × 9 = ☐ → E
6 × 5 = ☐ → R	2 × 12 = ☐ → S	4 × 8 = ☐ → D
11 × 7 = ☐ → Y	2 × 10 = ☐ → W	2 × 7 = ☐ → H
4 × 10 = ☐ → C	5 × 3 = ☐ → B	11 × 3 = ☐ → N
7 × 3 = ☐ → O	11 × 4 = ☐ → T	

Scratch space:

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

> The remaining rations of dried fish were split evenly among the scouting teams to calculate individual shares.

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:

54 ÷ 9 = ☐	8 ÷ 2 = ☐	11 ÷ 11 = ☐	45 ÷ 9 = ☐	18 ÷ 6 = ☐
96 ÷ 8 = ☐	45 ÷ 5 = ☐	24 ÷ 12 = ☐	80 ÷ 8 = ☐	40 ÷ 5 = ☐
110 ÷ 10 = ☐				

Step 2 - cross out the sentence with each answer:

1. The villain built wooden barricades, then swung the iron chisel.
2. The villain steered supply boats, then blew the silver whistle.
3. The villain steered supply boats, then tapped the oak mallet.
4. The villain searched pine forests, then tapped the oak mallet.
5. The villain forged iron nails, then blew the silver whistle.
6. The villain mapped secret trails, then checked the brass compass.
7. The villain steered supply boats, then checked the brass compass.
8. The villain steered supply boats, then wrote in the journal.
9. The villain mapped secret trails, then swung the iron chisel.
10. The villain searched pine forests, then wrote in the journal.
11. The villain searched pine forests, then swung the iron chisel.
12. The villain built wooden barricades, then wrote in the journal.

TEACHER / PARENT

Answer Key

The Mystery of Roanoke Island

Culprit: Ananias Dare

Navigation · Brass Compass · Left Handed · Grey Cloak · Loud Bell

Trail: Start 21 → Clue 1 16 → Clue 2 13 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE SABOTEUR DID NOT USE A LEATHER JOURNAL"

Round 727 to the nearest hundred = 700 (T) · Round 94 to the nearest ten = 90 (R) · Round 2,916 to the nearest hundred = 2900 (E) · Round 4,304 to the nearest hundred = 4300 (I) · Round 525 to the nearest hundred = 500 (A) · Round 132 to the nearest ten = 130 (J) · Round 66 to the nearest ten = 70 (H) · Round 231 to the nearest ten = 230 (N) · Round 172 to the nearest ten = 170 (S) · Round 24 to the nearest ten = 20 (O) · Round 1,293 to the nearest hundred = 1300 (U) · Round 112 to the nearest ten = 110 (L) · Round 50 to the nearest ten = 50 (D) · Round 3,673 to the nearest hundred = 3700 (B)

Clue 2 (Addition): "A LEFT HANDED PRINT WAS LEFT ON THE POST"

1632 + 2400 = 4032 (A) · 6227 + 3182 = 9409 (P) · 3763 + 3693 = 7456 (T) · 3007 + 4745 = 7752 (I) · 2671 + 2593 = 5264 (F) · 4032 + 3012 = 7044 (R) · 2914 + 1753 = 4667 (H) · 4624 + 3690 = 8314 (W) · 3745 + 5483 = 9228 (S) · 6074 + 3478 = 9552 (O) · 2430 + 1681 = 4111 (L) · 1643 + 3148 = 4791 (E) · 5092 + 3508 = 8600 (N) · 3803 + 2450 = 6253 (D)

Clue 3 (Subtraction): "THE VILLAIN CANNOT STAND A LOUD BELL"

9186 - 3954 = 5232 (T) · 7228 - 2260 = 4968 (D) · 7506 - 2044 = 5462 (B) · 1620 - 172 = 1448 (A) · 13008 - 4751 = 8257 (O) · 12299 - 4413 = 7886 (E) · 7200 - 3803 = 3397 (N) · 8180 - 2339 = 5841 (S) · 10340 - 3982 = 6358 (I) · 5844 - 2825 = 3019 (V) · 12872 - 3893 = 8979 (U) · 9756 - 4402 = 5354 (L) · 8059 - 580 = 7479 (H) · 6179 - 1090 = 5089 (C)

Clue 4 (Multiplication facts (1-12)): "FIBERS FROM A GREY CLOAK WERE FOUND ON THE TREE"

7 × 6 = 42 (F) · 2 × 11 = 22 (U) · 9 × 10 = 90 (M) · 7 × 7 = 49 (I) · 9 × 9 = 81 (A) · 8 × 7 = 56 (K) · 10 × 11 = 110 (G) · 12 × 12 = 144 (L) · 12 × 9 = 108 (E) · 6 × 5 = 30 (R) · 2 × 12 = 24 (S) · 4 × 8 = 32 (D) · 11 × 7 = 77 (Y) · 2 × 10 = 20 (W) · 2 × 7 = 14 (H) · 4 × 10 = 40 (C) · 5 × 3 = 15 (B) · 11 × 3 = 33 (N) · 7 × 3 = 21 (O) · 11 × 4 = 44 (T)

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

54 ÷ 9 = 6 · 8 ÷ 2 = 4 · 11 ÷ 11 = 1 · 45 ÷ 9 = 5 · 18 ÷ 6 = 3 · 96 ÷ 8 = 12 · 45 ÷ 5 = 9 · 24 ÷ 12 = 2 · 80 ÷ 8 = 10 · 40 ÷ 5 = 8 · 110 ÷ 10 = 11