

Possible suspects

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

NAME	STATION DUTY	SABOTAGE GEAR	WRITING HAND	UNIFORM CAP	LOUD SOUND
Captain Miller	ballast pump	decoy drones	left handed	blue ballcap	steam whistles
Pilot O Connor	ballast pump	emp jammers	left handed	white officer hat	steam whistles
Lieutenant Chen	sonar tracking	override codes	left handed	blue ballcap	alarm sirens
Officer Taylor	sonar tracking	override codes	left handed	blue ballcap	sonar pings
Seaman Harris	sonar tracking	laser cutters	left handed	white officer hat	sonar pings
Engineer Scott	galley cooking	override codes	right handed	white officer hat	sonar pings
Analyst Martinez	galley cooking	bypass chips	left handed	white officer hat	alarm sirens
Specialist Green	sonar tracking	emp jammers	left handed	black watch cap	sonar pings
Cook Robinson	galley cooking	laser cutters	left handed	white officer hat	sonar pings
Cadet Campbell	sonar tracking	bypass chips	left handed	blue ballcap	steam whistles
Diver Ramirez	reactor control	override codes	left handed	blue ballcap	steam whistles
Mechanic Nelson	reactor control	bypass chips	right handed	black watch cap	steam whistles
Gunner Wright	sonar tracking	decoy drones	right handed	white officer hat	sonar pings
Sonar Man Jackson	reactor control	override codes	right handed	blue ballcap	steam whistles
Lookout Baker	torpedo loading	override codes	left handed	black watch cap	sonar pings
Petty Officer Jones	sonar tracking	emp jammers	left handed	blue ballcap	steam whistles
Technician Brown	ballast pump	decoy drones	right handed	blue ballcap	steam whistles
Commander Davis	galley cooking	decoy drones	right handed	blue ballcap	alarm sirens
Sentry Mitchell	ballast pump	decoy drones	left handed	black watch cap	steam whistles
Ensign Smith	reactor control	laser cutters	right handed	white officer hat	sonar pings
Quartermaster Adams	sonar tracking	decoy drones	left handed	blue ballcap	steam whistles

CLUE 1 Addition

The Quartermaster is counting the spare oxygen tanks in the forward storage locker. Adding up these supply crates helps us track where the saboteur sneaked in.

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

T							T										T
9833	8934	8376	3140	6832	6616	8276	9833	8376	2507	4635	5453	8276	8376	3140	7122	8276	9833

2507	3140	8376	8376	6539	7096	9505	6832

4821 + 5012 = → T	2508 + 5768 = → O	2206 + 2429 = → R
2805 + 5571 = → E	1644 + 863 = → U	4422 + 2194 = → B
2238 + 4858 = → P	3900 + 5605 = → J	3190 + 2263 = → D
3179 + 3943 = → N	1098 + 2042 = → S	4268 + 4666 = → H
3990 + 2549 = → M	4426 + 2406 = → A	

Scratch space:

CLUE 2

Subtraction

Our fuel levels are dropping fast as we chase the rogue signal. Subtracting the leaked gallons from our total tank size tells us how much time we have left.

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

T						T													
1405	2049	5741	6730	5741	3977	1405	2049	4762	3714	1562	7767	4762	4942	7246	4942	5741	1562		

T					T		T						T	
1405	6615	7767	6621	8833	1405	5741	1405	2049	5741	3714	6615	1405	5741	

$5583 - 4178 = \square \rightarrow \boxed{\text{T}}$

$6636 - 4587 = \square \rightarrow \boxed{\text{H}}$

$4733 - 3171 = \square \rightarrow \boxed{\text{D}}$

$8328 - 1713 = \square \rightarrow \boxed{\text{O}}$

$10049 - 3428 = \square \rightarrow \boxed{\text{R}}$

$7720 - 990 = \square \rightarrow \boxed{\text{L}}$

$11064 - 3297 = \square \rightarrow \boxed{\text{W}}$

$5971 - 1029 = \square \rightarrow \boxed{\text{S}}$

$11867 - 4621 = \square \rightarrow \boxed{\text{U}}$

$9231 - 4469 = \square \rightarrow \boxed{\text{A}}$

$11441 - 2608 = \square \rightarrow \boxed{\text{I}}$

$6212 - 471 = \square \rightarrow \boxed{\text{E}}$

$7538 - 3561 = \square \rightarrow \boxed{\text{F}}$

$3765 - 51 = \square \rightarrow \boxed{\text{N}}$

Scratch space:

Fractions of a number

Only a small fraction of the Missouri power grid is still working. Finding the fraction of active circuits reveals a hidden message in the reactor computer.

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

Diagram illustrating the sequence of numbers and 'T' markers across two rows:

Row 1: 36 (T), 27, 31, 22, 34, 33, 38, 34, 14, 38, 34, 32, 32, 37, 36 (T), 33, 36 (T), 34, 32, 12

Row 2: 33, 36 (T), 31, 34, 30, 39, 27, 4, 33, 36 (T), 14, 31, 33

$$3/10 \text{ of } 120 = \boxed{} \rightarrow \boxed{\text{T}}$$

$3/6$ of $66 = \boxed{} \rightarrow \mathbf{S}$

$$2/3 \text{ of } 33 = \boxed{} \rightarrow \boxed{\text{R}}$$

$$\frac{3}{6} \text{ of } 54 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$2/4 \text{ of } 64 = \boxed{} \rightarrow \boxed{\text{N}}$$

$$\frac{1}{5} \text{ of } 150 = \boxed{} \rightarrow \boxed{\text{M}}$$

$2/5$ of 10 = $\rightarrow$

$1/5$ of 170 = $\rightarrow$ **A**

8/10 of 15 = → **D**

$2/5$ of 95 = $\rightarrow$ **C**

$$2/4 \text{ of } 62 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$1/8 \text{ of } 112 = \boxed{} \rightarrow \boxed{\text{L}}$$

$1/5$ of 185 = $\rightarrow$

$$\frac{1}{2} \text{ of } 78 = \boxed{} \rightarrow \boxed{\text{W}}$$

Scratch space:

CLUE 4
Multiplication facts (1-12)

The torpedo bay crew arranged the heavy sonar decoys in neat rows. Multiplying the rows by the columns lets us quickly tally the gear to find the clue.

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

A						A				A			A	
48	66	49	56	24	66	48	49	49	9	48	3	12	48	55
77	5	56	120	2	5	120	6	132	24	2	24	9	40	

$12 \times 4 = \square \rightarrow \boxed{\text{A}}$

$1 \times 6 = \square \rightarrow \boxed{\text{T}}$

$1 \times 2 = \square \rightarrow \boxed{\text{D}}$

$7 \times 7 = \square \rightarrow \boxed{\text{L}}$

$5 \times 1 = \square \rightarrow \boxed{\text{O}}$

$10 \times 12 = \square \rightarrow \boxed{\text{N}}$

$5 \times 8 = \square \rightarrow \boxed{\text{K}}$

$9 \times 1 = \square \rightarrow \boxed{\text{C}}$

$3 \times 1 = \square \rightarrow \boxed{\text{P}}$

$4 \times 3 = \square \rightarrow \boxed{\text{W}}$

$11 \times 5 = \square \rightarrow \boxed{\text{S}}$

$7 \times 11 = \square \rightarrow \boxed{\text{F}}$

$3 \times 8 = \square \rightarrow \boxed{\text{E}}$

$12 \times 11 = \square \rightarrow \boxed{\text{H}}$

$8 \times 7 = \square \rightarrow \boxed{\text{U}}$

$6 \times 11 = \square \rightarrow \boxed{\text{B}}$

Scratch space:

CLUE 5**Fractions of a number - the last clue**

The submarine is diving to avoid detection, but we can only safely use a fraction of our maximum depth. Calculating this fraction points to the villain.

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:

$2/8 \text{ of } 16 = \boxed{}$

$3/8 \text{ of } 16 = \boxed{}$

$3/5 \text{ of } 5 = \boxed{}$

$1/4 \text{ of } 4 = \boxed{}$

$2/10 \text{ of } 55 = \boxed{}$

$2/10 \text{ of } 25 = \boxed{}$

$4/10 \text{ of } 20 = \boxed{}$

$8/10 \text{ of } 15 = \boxed{}$

$3/6 \text{ of } 20 = \boxed{}$

$1/6 \text{ of } 54 = \boxed{}$

$1/4 \text{ of } 8 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain drained the secondary battery, then vented the steam valves.
2. The villain redirected the sonar array, then clogged the main air intake.
3. The villain drained the secondary battery, then clogged the main air intake.
4. The villain locked the hatch seals, then scrambled the radio codes.
5. The villain redirected the sonar array, then hid the emergency toolkit.
6. The villain hacked the ballast controls, then scrambled the radio codes.
7. The villain hacked the ballast controls, then tripped the circuit breaker.
8. The villain drained the secondary battery, then scrambled the radio codes.
9. The villain locked the hatch seals, then vented the steam valves.
10. The villain hacked the ballast controls, then hid the emergency toolkit.
11. The villain redirected the sonar array, then vented the steam valves.
12. The villain scrambled the navigation coordinates, then vented the steam valves.

Answer Key

Sabotage on the USS Missouri

Culprit: Cadet Campbell

sonar tracking · bypass chips · left handed · blue ballcap · steam whistles

Trail: Start 21 → Clue 1 18 → Clue 2 11 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE SABOTEUR DOES NOT USE EMP JAMMERS"

$4821 + 5012 = 9833$ (T) · $2508 + 5768 = 8276$ (O) · $2206 + 2429 = 4635$ (R) · $2805 + 5571 = 8376$ (E) · $1644 + 863 = 2507$ (U) · $4422 + 2194 = 6616$ (B) · $2238 + 4858 = 7096$ (P) · $3900 + 5605 = 9505$ (J) · $3190 + 2263 = 5453$ (D) · $3179 + 3943 = 7122$ (N) · $1098 + 2042 = 3140$ (S) · $4268 + 4666 = 8934$ (H) · $3990 + 2549 = 6539$ (M) · $4426 + 2406 = 6832$ (A)

Clue 2 (Subtraction): "THE LEFT HAND WAS USED TO WRITE THE NOTE"

$5583 - 4178 = 1405$ (T) · $6636 - 4587 = 2049$ (H) · $4733 - 3171 = 1562$ (D) · $8328 - 1713 = 6615$ (O) · $10049 - 3428 = 6621$ (R) · $7720 - 990 = 6730$ (L) · $11064 - 3297 = 7767$ (W) · $5971 - 1029 = 4942$ (S) · $11867 - 4621 = 7246$ (U) · $9231 - 4469 = 4762$ (A) · $11441 - 2608 = 8833$ (I) · $6212 - 471 = 5741$ (E) · $7538 - 3561 = 3977$ (F) · $3765 - 51 = 3714$ (N)

Clue 3 (Fractions of a number): "THE RASCAL CANNOT STAND STEAM WHISTLES"

$3/10$ of 120 = 36 (T) · $3/6$ of 66 = 33 (S) · $2/3$ of 33 = 22 (R) · $3/6$ of 54 = 27 (H) · $2/4$ of 64 = 32 (N) · $1/5$ of 150 = 30 (M) · $2/5$ of 10 = 4 (I) · $1/5$ of 170 = 34 (A) · $8/10$ of 15 = 12 (D) · $2/5$ of 95 = 38 (C) · $2/4$ of 62 = 31 (E) · $1/8$ of 112 = 14 (L) · $1/5$ of 185 = 37 (O) · $1/2$ of 78 = 39 (W)

Clue 4 (Multiplication facts (1-12)): "A BLUE BALLCAP WAS FOUND ON THE DECK"

$12 \times 4 = 48$ (A) · $1 \times 6 = 6$ (T) · $1 \times 2 = 2$ (D) · $7 \times 7 = 49$ (L) · $5 \times 1 = 5$ (O) · $10 \times 12 = 120$ (N) · $5 \times 8 = 40$ (K) · $9 \times 1 = 9$ (C) · $3 \times 1 = 3$ (P) · $4 \times 3 = 12$ (W) · $11 \times 5 = 55$ (S) · $7 \times 11 = 77$ (F) · $3 \times 8 = 24$ (E) · $12 \times 11 = 132$ (H) · $8 \times 7 = 56$ (U) · $6 \times 11 = 66$ (B)

Clue 5 (Fractions of a number): surviving statement is box 7 → Cadet Campbell

$2/8$ of 16 = 4 · $3/8$ of 16 = 6 · $3/5$ of 5 = 3 · $1/4$ of 4 = 1 · $2/10$ of 55 = 11 · $2/10$ of 25 = 5 · $4/10$ of 20 = 8 · $8/10$ of 15 = 12 · $3/6$ of 20 = 10 · $1/6$ of 54 = 9 · $1/4$ of 8 = 2