



The Splat Cruiser Sabotage

Grade 5 math · Addition, Subtraction, Fractions of a number, Multiplication · Reading level grades 5-6

Detective: _____ **Date:** _____

The Junior Riot Patrol's flagship armored Splat-Cruiser has exploded in a shower of foam and fizz! Chief Joshua, Dax, and Zeno were investigating a playground disturbance when the vehicle went boom. Who sabotaged the vehicle? Decode the clues to find the rogue cadet!

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	SABOTAGE TOOL	ESCAPE VEHICLE	GLOVE HAND	HELMET COLOR	DEACTIVATION FOIL
Sergeant Cole	Splat Foam	Super Skateboard	Right Handed	Red Helmet	Water Spray
Commander Max	Mega Mentos	Sleek Hoverboard	Left Handed	Blue Helmet	Sticky Magnet
Recruit Toby	Splat Foam	Super Skateboard	Right Handed	Red Helmet	Sticky Magnet
Chief Eli	Pop Rocks Pack	Pocket Unicycle	Left Handed	Red Helmet	Water Spray
Cadet Maya	Pop Rocks Pack	Sleek Hoverboard	Right Handed	Red Helmet	Water Spray
Officer Ava	Pop Rocks Pack	Turbo Scooter	Right Handed	Red Helmet	Water Spray
Agent Kira	Pop Rocks Pack	Turbo Scooter	Right Handed	Blue Helmet	Water Spray
Officer Liam	Mega Mentos	Turbo Scooter	Right Handed	Red Helmet	Water Spray
Zeno	Spark Powder	Mini Go-Kart	Right Handed	Red Helmet	Dry Sponge
Dax	Mega Mentos	Mini Go-Kart	Right Handed	Blue Helmet	Dry Sponge
Cadet Noah	Pop Rocks Pack	Super Skateboard	Left Handed	Green Helmet	Dry Sponge
Ranger Zack	Mega Mentos	Turbo Scooter	Right Handed	Green Helmet	Sticky Magnet
Deputy Mia	Mega Mentos	Sleek Hoverboard	Left Handed	Green Helmet	Sticky Magnet
Recruit Lily	Pop Rocks Pack	Mini Go-Kart	Left Handed	Red Helmet	Water Spray
Sgt Mason	Fizzy Soda	Turbo Scooter	Right Handed	Green Helmet	Dry Sponge
Chief Bobby	Fizzy Soda	Mini Go-Kart	Right Handed	Red Helmet	Dry Sponge
Ranger Jack	Pop Rocks Pack	Turbo Scooter	Right Handed	Green Helmet	Dry Sponge
Agent Ruby	Fizzy Soda	Pocket Unicycle	Right Handed	Blue Helmet	Water Spray
Sgt Cooper	Splat Foam	Mini Go-Kart	Left Handed	Red Helmet	Dry Sponge
Deputy Owen	Fizzy Soda	Sleek Hoverboard	Right Handed	Red Helmet	Water Spray
Joshua	Fizzy Soda	Turbo Scooter	Left Handed	Red Helmet	Sticky Magnet

CLUE 1 Addition

To find out how many extra gear gears were loaded, the squad added the morning crates and the afternoon crates together.

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

T								T											T
3944	9074	2210	7949	2634	5843	7150	3944	2210	6409	7189	9356	6133	9356	5142	7150	3944			

							T												
6409	7949	2210	2634	7949	6487	2634	3944	2210	5843	7150	2634	7189	9356						

1794 + 2150 = → T	4204 + 2946 = → O	3080 + 2763 = → B
5080 + 4276 = → D	3027 + 4922 = → S	4817 + 4257 = → H
3160 + 2973 = → I	3596 + 3593 = → R	811 + 1399 = → E
1363 + 1271 = → A	2853 + 3634 = → K	3024 + 3385 = → U
1800 + 3342 = → N		

Scratch space:

CLUE 2

Subtraction

We checked the siren bulbs inventory and subtracted the broken ones to see what remained at the blast zone.

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

T									T				T					T	
3960	4050	3262	2255	4523	2255	3986	3262	8459	3960	1521	7698	2385	3960	3262	2255	1521	2385	3960	4050

T									T				
3960	4050	3262	2385	7698	7698	2385	1581	4050	3960	4050	8119	7504	3324

$4506 - 546 = \square \rightarrow \boxed{\text{T}}$

$2813 - 428 = \square \rightarrow \boxed{\text{I}}$

$6859 - 4604 = \square \rightarrow \boxed{\text{S}}$

$8074 - 4750 = \square \rightarrow \boxed{\text{D}}$

$9086 - 1388 = \square \rightarrow \boxed{\text{R}}$

$5229 - 1967 = \square \rightarrow \boxed{\text{E}}$

$8911 - 4388 = \square \rightarrow \boxed{\text{U}}$

$6010 - 2024 = \square \rightarrow \boxed{\text{P}}$

$4289 - 2768 = \square \rightarrow \boxed{\text{W}}$

$10812 - 2693 = \square \rightarrow \boxed{\text{A}}$

$7641 - 137 = \square \rightarrow \boxed{\text{N}}$

$10669 - 2210 = \square \rightarrow \boxed{\text{C}}$

$7219 - 3169 = \square \rightarrow \boxed{\text{H}}$

$3328 - 1747 = \square \rightarrow \boxed{\text{G}}$

Scratch space:

CLUE 3
Fractions of a number

Only a fraction of the patrol badges recovered from the crash were still shiny enough to read.

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

T								T						
40	7	8	4	33	22	29	40	8	23	15	31	4		

					T						T								
16	8	38	8	33	40	8	16	22	17	37	33	40	8	15	4	5	15	33	17

$3/6 \text{ of } 80 = \square \rightarrow \text{T}$

$4/8 \text{ of } 8 = \square \rightarrow \text{S}$

$4/10 \text{ of } 20 = \square \rightarrow \text{E}$

$5/10 \text{ of } 44 = \square \rightarrow \text{B}$

$2/4 \text{ of } 58 = \square \rightarrow \text{O}$

$1/2 \text{ of } 32 = \square \rightarrow \text{D}$

$2/10 \text{ of } 190 = \square \rightarrow \text{F}$

$1/2 \text{ of } 66 = \square \rightarrow \text{A}$

$1/3 \text{ of } 15 = \square \rightarrow \text{P}$

$1/4 \text{ of } 148 = \square \rightarrow \text{W}$

$1/5 \text{ of } 115 = \square \rightarrow \text{U}$

$2/10 \text{ of } 85 = \square \rightarrow \text{Y}$

$3/6 \text{ of } 14 = \square \rightarrow \text{H}$

$1/2 \text{ of } 62 = \square \rightarrow \text{I}$

$2/10 \text{ of } 75 = \square \rightarrow \text{R}$

Scratch space:

CLUE 4

Multiplication facts (1-12)

The patrol officers counted the foam canisters by multiplying the rows of shelves in the storage locker.

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

T																		
4	63	8	8	33	96	49	8	60	121	8	10	66	144	11	6	14	60	49
60	8	66	27	66	27	8	49	63	8	64	22	8	4					

$2 \times 2 = \square \rightarrow \boxed{\text{T}}$

$11 \times 11 = \square \rightarrow \boxed{\text{C}}$

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

$9 \times 3 = \square \rightarrow \boxed{\text{R}}$

$9 \times 7 = \square \rightarrow \boxed{\text{H}}$

$2 \times 11 = \square \rightarrow \boxed{\text{M}}$

$12 \times 12 = \square \rightarrow \boxed{\text{S}}$

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

$12 \times 8 = \square \rightarrow \boxed{\text{I}}$

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

$11 \times 3 = \square \rightarrow \boxed{\text{V}}$

$7 \times 2 = \square \rightarrow \boxed{\text{U}}$

$4 \times 2 = \square \rightarrow \boxed{\text{E}}$

$10 \times 6 = \square \rightarrow \boxed{\text{N}}$

$11 \times 1 = \square \rightarrow \boxed{\text{F}}$

$2 \times 3 = \square \rightarrow \boxed{\text{O}}$

$2 \times 5 = \square \rightarrow \boxed{\text{W}}$

Scratch space:

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

To distribute the remaining spark plugs, the mechanics calculated a fraction of the total box.

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:

$1/10 \text{ of } 10 = \boxed{}$

$2/8 \text{ of } 48 = \boxed{}$

$4/5 \text{ of } 10 = \boxed{}$

$5/10 \text{ of } 12 = \boxed{}$

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

$4/10 \text{ of } 5 = \boxed{}$

$1/3 \text{ of } 27 = \boxed{}$

$2/4 \text{ of } 14 = \boxed{}$

$1/4 \text{ of } 16 = \boxed{}$

$1/10 \text{ of } 50 = \boxed{}$

$1/8 \text{ of } 88 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain sprinkled a Pop Rocks Pack, then glided off on a Sleek Hoverboard.
2. The villain tampered with Mega Mentos, then rolled away on a Super Skateboard.
3. The villain shook up the Fizzy Soda, then rolled away on a Super Skateboard.
4. The villain leaked the Splat Foam, then rolled away on a Super Skateboard.
5. The villain ignited the Spark Powder, then sped away in a Mini Go-Kart.
6. The villain shook up the Fizzy Soda, then balanced away on a Pocket Unicycle.
7. The villain shook up the Fizzy Soda, then sped away in a Mini Go-Kart.
8. The villain sprinkled a Pop Rocks Pack, then zipped away on a Turbo Scooter.
9. The villain sprinkled a Pop Rocks Pack, then sped away in a Mini Go-Kart.
10. The villain shook up the Fizzy Soda, then glided off on a Sleek Hoverboard.
11. The villain leaked the Splat Foam, then glided off on a Sleek Hoverboard.
12. The villain tampered with Mega Mentos, then zipped away on a Turbo Scooter.

Answer Key

The Splat Cruiser Sabotage

Culprit: Deputy Owen

Fizzy Soda · Sleek Hoverboard · Right Handed · Red Helmet · Water Spray

Trail: Start 21 → Clue 1 18 → Clue 2 12 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE SABOTEUR DID NOT USE A SKATEBOARD"

$1794 + 2150 = 3944$ (T) · $4204 + 2946 = 7150$ (O) · $3080 + 2763 = 5843$ (B) · $5080 + 4276 = 9356$ (D) · $3027 + 4922 = 7949$ (S) · $4817 + 4257 = 9074$ (H) · $3160 + 2973 = 6133$ (I) · $3596 + 3593 = 7189$ (R) · $811 + 1399 = 2210$ (E) · $1363 + 1271 = 2634$ (A) · $2853 + 3634 = 6487$ (K) · $3024 + 3385 = 6409$ (U) · $1800 + 3342 = 5142$ (N)

Clue 2 (Subtraction): "THE SUSPECT WRITES WITH THEIR RIGHT HAND"

$4506 - 546 = 3960$ (T) · $2813 - 428 = 2385$ (I) · $6859 - 4604 = 2255$ (S) · $8074 - 4750 = 3324$ (D) · $9086 - 1388 = 7698$ (R) · $5229 - 1967 = 3262$ (E) · $8911 - 4388 = 4523$ (U) · $6010 - 2024 = 3986$ (P) · $4289 - 2768 = 1521$ (W) · $10812 - 2693 = 8119$ (A) · $7641 - 137 = 7504$ (N) · $10669 - 2210 = 8459$ (C) · $7219 - 3169 = 4050$ (H) · $3328 - 1747 = 1581$ (G)

Clue 3 (Fractions of a number): "THE SABOTEUR IS DEFEATED BY WATER SPRAY"

$3/6$ of 80 = 40 (T) · $4/8$ of 8 = 4 (S) · $4/10$ of 20 = 8 (E) · $5/10$ of 44 = 22 (B) · $2/4$ of 58 = 29 (O) · $1/2$ of 32 = 16 (D) · $2/10$ of 190 = 38 (F) · $1/2$ of 66 = 33 (A) · $1/3$ of 15 = 5 (P) · $1/4$ of 148 = 37 (W) · $1/5$ of 115 = 23 (U) · $2/10$ of 85 = 17 (Y) · $3/6$ of 14 = 7 (H) · $1/2$ of 62 = 31 (I) · $2/10$ of 75 = 15 (R)

Clue 4 (Multiplication facts (1-12)): "THE EVIDENCE WAS FOUND NEAR A RED HELMET"

$2 \times 2 = 4$ (T) · $11 \times 11 = 121$ (C) · $7 \times 7 = 49$ (D) · $9 \times 3 = 27$ (R) · $9 \times 7 = 63$ (H) · $2 \times 11 = 22$ (M) · $12 \times 12 = 144$ (S) · $6 \times 11 = 66$ (A) · $12 \times 8 = 96$ (I) · $8 \times 8 = 64$ (L) · $11 \times 3 = 33$ (V) · $7 \times 2 = 14$ (U) · $4 \times 2 = 8$ (E) · $10 \times 6 = 60$ (N) · $11 \times 1 = 11$ (F) · $2 \times 3 = 6$ (O) · $2 \times 5 = 10$ (W)

Clue 5 (Fractions of a number): surviving statement is box 10 → Deputy Owen

$1/10$ of 10 = 1 · $2/8$ of 48 = 12 · $4/5$ of 10 = 8 · $5/10$ of 12 = 6 · $3/8$ of 8 = 3 · $4/10$ of 5 = 2 · $1/3$ of 27 = 9 · $2/4$ of 14 = 7 · $1/4$ of 16 = 4 · $1/10$ of 50 = 5 · $1/8$ of 88 = 11