



The Runaway Riot ATV Incident

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

Detective: _____ **Date:** _____

An experimental Riot Control ATV has just roared out of the high-tech garage, leaving a trail of harmless paint-bomb explosions! Chief Joshua, Dax, and Zeno must work together to find out which cadet took the vehicle for a dangerous joyride. Work through the clues to identify the rogue test driver!

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 rogue test driver is _____

Possible suspects

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

NAME	DRIVING SPECIALTY	ATV CUSTOMIZATION	DRIVING STYLE	VISOR COLOR	ATV COUNTERMEASURE
Officer Jax	Siren Blasting	Paint Cannons	Right Handed Steering	Blue Visor	Slick Banana Peels
Ranger	Mud Drifting	Mega Thrusters	Right Handed Steering	Gold Visor	Heavy Foam Spray
Crash	Siren Blasting	Laser Headlights	Left Handed Steering	Red Visor	Slick Banana Peels
Turbo	Smoke Screen	Laser Headlights	Right Handed Steering	Red Visor	Slick Banana Peels
Axel	Smoke Screen	Paint Cannons	Left Handed Steering	Red Visor	Heavy Foam Spray
Joshua	Spike Dropping	Paint Cannons	Right Handed Steering	Red Visor	Slick Banana Peels
Slick	Siren Blasting	Mega Thrusters	Left Handed Steering	Gold Visor	Sticky Bubblegum
Zeno	Mud Drifting	Mega Thrusters	Right Handed Steering	Gold Visor	Slick Banana Peels
Chase	Smoke Screen	Paint Cannons	Right Handed Steering	Gold Visor	Sticky Bubblegum
Blaze	Spike Dropping	Paint Cannons	Right Handed Steering	Gold Visor	Slick Banana Peels
Spark	Shield Deploying	Paint Cannons	Left Handed Steering	Gold Visor	Slick Banana Peels
Dax	Siren Blasting	Neon Bumpers	Left Handed Steering	Red Visor	Slick Banana Peels
Chief Josh	Mud Drifting	Paint Cannons	Left Handed Steering	Red Visor	Heavy Foam Spray
Wrecker	Mud Drifting	Mega Thrusters	Left Handed Steering	Gold Visor	Sticky Bubblegum
Tracker	Shield Deploying	Paint Cannons	Right Handed Steering	Gold Visor	Slick Banana Peels
Gizmo	Mud Drifting	Paint Cannons	Right Handed Steering	Blue Visor	Heavy Foam Spray
Striker	Smoke Screen	Neon Bumpers	Left Handed Steering	Red Visor	Slick Banana Peels
Ryder	Mud Drifting	Neon Bumpers	Right Handed Steering	Gold Visor	Slick Banana Peels
Jolt	Siren Blasting	Neon Bumpers	Right Handed Steering	Gold Visor	Sticky Bubblegum
Gears	Siren Blasting	Neon Bumpers	Right Handed Steering	Gold Visor	Slick Banana Peels
Buster	Shield Deploying	Paint Cannons	Right Handed Steering	Gold Visor	Heavy Foam Spray

CLUE 1 Subtraction

Chief Joshua counts the remaining smoke canisters in the locker. Subtracting what is left from the original stock reveals a hidden clue.

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

T																			
3392	7982	8740	1256	1131	3822	4821	8740	1131	1256	6295	8740	8794	7467	6295	3392	4464	8794	8740	

				T					T				
2744	8740	1429	8175	3392	7982	1131	4464	8794	3392	8740	1131	8794	

3726 - 334 = → T	12942 - 4202 = → E	9909 - 1115 = → S
1389 - 258 = → R	10430 - 4135 = → O	5592 - 4163 = → G
6052 - 4796 = → D	5517 - 1695 = → I	11937 - 3762 = → A
10101 - 2634 = → N	9104 - 4640 = → U	2763 - 19 = → M
8629 - 647 = → H	7255 - 2434 = → V	

Scratch space:

CLUE 2
Multiplication facts (1-12)

Dax finds rows of tread marks in the mud. Multiplying the rows of tracks reveals the speed of the runaway vehicle and another clue.

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

T			T													
50	1	77	50	7	4	77	22	22	54	77	4	25	77	120		
							T		T							T
22	1	20	4	42	144	88	50	60	50	1	77	4	7	66	1	50

$10 \times 5 = \square \rightarrow$ T	$1 \times 4 = \square \rightarrow$ R	$12 \times 5 = \square \rightarrow$ O
$7 \times 11 = \square \rightarrow$ E	$8 \times 11 = \square \rightarrow$ Y	$12 \times 12 = \square \rightarrow$ L
$7 \times 1 = \square \rightarrow$ I	$11 \times 6 = \square \rightarrow$ G	$11 \times 2 = \square \rightarrow$ S
$1 \times 1 = \square \rightarrow$ H	$6 \times 7 = \square \rightarrow$ P	$4 \times 5 = \square \rightarrow$ A
$12 \times 10 = \square \rightarrow$ D	$9 \times 6 = \square \rightarrow$ W	$5 \times 5 = \square \rightarrow$ V

Scratch space:

CLUE 3 Addition

Zeno gathers the empty fuel canisters dropped along the security fence. Adding them up points to a new piece of evidence.

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

T			T										
4528	7497	5605	4528	9282	3244	5605	4220	4220	6177	9282	6467	5369	6657
6970	5605	6177	6177	5369	7800	5935	2549	6657	2549	6657	2549	6738	5605

$2338 + 2190 = \square \rightarrow \text{T}$	$2498 + 3969 = \square \rightarrow \text{D}$	$1722 + 1522 = \square \rightarrow \text{R}$
$3209 + 2396 = \square \rightarrow \text{E}$	$3356 + 3301 = \square \rightarrow \text{N}$	$2350 + 4388 = \square \rightarrow \text{P}$
$3506 + 3991 = \square \rightarrow \text{H}$	$1677 + 2543 = \square \rightarrow \text{S}$	$6132 + 3150 = \square \rightarrow \text{I}$
$3320 + 2615 = \square \rightarrow \text{B}$	$4361 + 3439 = \square \rightarrow \text{W}$	$3026 + 3151 = \square \rightarrow \text{L}$
$4214 + 2756 = \square \rightarrow \text{Y}$	$2176 + 3193 = \square \rightarrow \text{O}$	$794 + 1755 = \square \rightarrow \text{A}$

Scratch space:

CLUE 4 Place value

The damaged ATV dashboard flashes a coded number. Finding the value of the digit in the hundreds place unlocks the security log.

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

W														
8000	10	500	30	700	2000	40	20	30	60	40	20	60	50	400
400	800	50	5000	40	400	30	2000	100	800	10	400	10	50	100

What is the value of the 8 in 538,313? → **W**

What is the value of the 3 in 20,238? → **O**

What is the value of the 4 in 12,249? → **D**

What is the value of the 5 in 25,411? → **R**

What is the value of the 4 in 688,431? → **S**

What is the value of the 6 in 25,068? → **L**

What is the value of the 2 in 736,123? → **G**

What is the value of the 1 in 542,719? → **E**

What is the value of the 5 in 698,547? → **F**

What is the value of the 8 in 713,822? → **H**

What is the value of the 1 in 299,140? → **T**

What is the value of the 7 in 249,788? → **U**

What is the value of the 2 in 32,475? → **N**

What is the value of the 5 in 90,958? → **A**

Scratch space:

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

Chief Joshua calculates how much fuel was used from the tank. Taking a fraction of the total fuel capacity pinpointed the driver.

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:

$2/4 \text{ of } 24 = \boxed{}$

$2/8 \text{ of } 32 = \boxed{}$

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

$1/5 \text{ of } 30 = \boxed{}$

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

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

$1/3 \text{ of } 30 = \boxed{}$

$1/10 \text{ of } 30 = \boxed{}$

$3/6 \text{ of } 2 = \boxed{}$

$1/5 \text{ of } 55 = \boxed{}$

$7/8 \text{ of } 8 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain drifts through mud, then fires the paint cannons.
2. The villain deploys the shield, then deploys tire spikes.
3. The villain blasts the siren, then fires the paint cannons.
4. The villain drops heavy spikes, then turns on laser headlights.
5. The villain drifts through mud, then activates neon bumpers.
6. The villain deploys the shield, then activates neon bumpers.
7. The villain drifts through mud, then engages mega thrusters.
8. The villain drops heavy spikes, then fires the paint cannons.
9. The villain blasts the siren, then activates neon bumpers.
10. The villain drops heavy spikes, then engages mega thrusters.
11. The villain releases a smoke screen, then fires the paint cannons.
12. The villain deploys the shield, then fires the paint cannons.

Answer Key

The Runaway Riot ATV Incident

Culprit: Ryder

Mud Drifting · Neon Bumpers · Right Handed Steering · Gold Visor · Slick Banana Peels

Trail: Start 21 → Clue 1 17 → Clue 2 11 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Subtraction): "THE DRIVER DOES NOT USE MEGA THRUSTERS"

$3726 - 334 = 3392$ (T) · $12942 - 4202 = 8740$ (E) · $9909 - 1115 = 8794$ (S) · $1389 - 258 = 1131$ (R) · $10430 - 4135 = 6295$ (O) · $5592 - 4163 = 1429$ (G) · $6052 - 4796 = 1256$ (D) · $5517 - 1695 = 3822$ (I) · $11937 - 3762 = 8175$ (A) · $10101 - 2634 = 7467$ (N) · $9104 - 4640 = 4464$ (U) · $2763 - 19 = 2744$ (M) · $8629 - 647 = 7982$ (H) · $7255 - 2434 = 4821$ (V)

Clue 2 (Multiplication facts (1-12)): "THE TIRES SWERVED SHARPLY TO THE RIGHT"

$10 \times 5 = 50$ (T) · $1 \times 4 = 4$ (R) · $12 \times 5 = 60$ (O) · $7 \times 11 = 77$ (E) · $8 \times 11 = 88$ (Y) · $12 \times 12 = 144$ (L) · $7 \times 1 = 7$ (I) · $11 \times 6 = 66$ (G) · $11 \times 2 = 22$ (S) · $1 \times 1 = 1$ (H) · $6 \times 7 = 42$ (P) · $4 \times 5 = 20$ (A) · $12 \times 10 = 120$ (D) · $9 \times 6 = 54$ (W) · $5 \times 5 = 25$ (V)

Clue 3 (Addition): "THE TIRES SLID ON YELLOW BANANA PEELS"

$2338 + 2190 = 4528$ (T) · $2498 + 3969 = 6467$ (D) · $1722 + 1522 = 3244$ (R) · $3209 + 2396 = 5605$ (E) · $3356 + 3301 = 6657$ (N) · $2350 + 4388 = 6738$ (P) · $3506 + 3991 = 7497$ (H) · $1677 + 2543 = 4220$ (S) · $6132 + 3150 = 9282$ (I) · $3320 + 2615 = 5935$ (B) · $4361 + 3439 = 7800$ (W) · $3026 + 3151 = 6177$ (L) · $4214 + 2756 = 6970$ (Y) · $2176 + 3193 = 5369$ (O) · $794 + 1755 = 2549$ (A)

Clue 4 (Place value): "WE FOUND GOLD GLASS SHARDS ON THE SEAT"

What is the value of the 8 in 538,313? = 8000 (W) · What is the value of the 3 in 20,238? = 30 (O) · What is the value of the 4 in 12,249? = 40 (D) · What is the value of the 5 in 25,411? = 5000 (R) · What is the value of the 4 in 688,431? = 400 (S) · What is the value of the 6 in 25,068? = 60 (L) · What is the value of the 2 in 736,123? = 20 (G) · What is the value of the 1 in 542,719? = 10 (E) · What is the value of the 5 in 698,547? = 500 (F) · What is the value of the 8 in 713,822? = 800 (H) · What is the value of the 1 in 299,140? = 100 (T) · What is the value of the 7 in 249,788? = 700 (U) · What is the value of the 2 in 32,475? = 2000 (N) · What is the value of the 5 in 90,958? = 50 (A)

Clue 5 (Fractions of a number): surviving statement is box 5 → Ryder

$\frac{2}{4}$ of 24 = 12 · $\frac{2}{8}$ of 32 = 8 · $\frac{1}{6}$ of 54 = 9 · $\frac{1}{5}$ of 30 = 6 · $\frac{4}{10}$ of 5 = 2 · $\frac{4}{8}$ of 8 = 4 · $\frac{1}{3}$ of 30 = 10 · $\frac{1}{10}$ of 30 = 3 · $\frac{3}{6}$ of 2 = 1 · $\frac{1}{5}$ of 55 = 11 · $\frac{7}{8}$ of 8 = 7