



The Ultimate Arena Sabotage

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

Detective: _____ **Date:** _____

The biggest Nerf and X-Shot Insanity tournament of the year is on hold! Just before the final match, someone snuck in, messed with the scoring system, and hid the championship trophy. Shiloh and his brothers need your tactical deduction skills to search the arena, crack the codes, and unmask the rogue player before the final buzzer rings!

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 Blaster is _____

Possible suspects

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

NAME	PRIMARY BLASTER TYPE	TACTICAL GEAR UPGRADE	SHOOTING STANCE	TOURNAMENT HEADGEAR	BATTLE MISTAKE
Brody	Motorized Chaos Cannon	Extended Barrel Extension	Right Handed Shooter	Neon Green Headband	Slipped On Foam Darts
Britney	Double Barrel Shot Shell	Mega Dart Shield	Right Handed Shooter	Flame Orange Cap	Slipped On Foam Darts
Marcus	Double Barrel Shot Shell	Double Ammo Drums	Right Handed Shooter	Neon Green Headband	Missed A Close Range Target
Drew	Insanity Rage Fire Blaster	Mega Dart Shield	Right Handed Shooter	Flame Orange Cap	Slipped On Foam Darts
Hunter	Tactical Sniper Rifle	Speed Loader Holster	Left Handed Shooter	Neon Green Headband	Blaster Jammed At The Wall
Shiloh	Double Barrel Shot Shell	Mega Dart Shield	Right Handed Shooter	Bright Blue Mohawk	Slipped On Foam Darts
Landon	Double Barrel Shot Shell	Double Ammo Drums	Right Handed Shooter	Flame Orange Cap	Missed A Close Range Target
Carter	Double Barrel Shot Shell	Extended Barrel Extension	Right Handed Shooter	Flame Orange Cap	Blaster Jammed At The Wall
Chase	Insanity Rage Fire Blaster	Mega Dart Shield	Left Handed Shooter	Bright Blue Mohawk	Slipped On Foam Darts
Wyatt	Insanity Rage Fire Blaster	Mega Dart Shield	Left Handed Shooter	Flame Orange Cap	Slipped On Foam Darts
Micah	Cyclone Dart Hurricane	Double Ammo Drums	Right Handed Shooter	Flame Orange Cap	Slipped On Foam Darts
Logan	Double Barrel Shot Shell	Mega Dart Shield	Right Handed Shooter	Flame Orange Cap	Missed A Close Range Target
Tyler	Motorized Chaos Cannon	Extended Barrel Extension	Left Handed Shooter	Bright Blue Mohawk	Blaster Jammed At The Wall
Jax	Cyclone Dart Hurricane	Speed Loader Holster	Left Handed Shooter	Flame Orange Cap	Blaster Jammed At The Wall
Elijah	Double Barrel Shot Shell	Extended Barrel Extension	Left Handed Shooter	Flame Orange Cap	Blaster Jammed At The Wall
Ryder	Motorized Chaos Cannon	Mega Dart Shield	Right Handed Shooter	Flame Orange Cap	Slipped On Foam Darts
Nolan	Cyclone Dart Hurricane	Extended Barrel Extension	Right Handed Shooter	Flame Orange Cap	Slipped On Foam Darts
Mason	Double Barrel Shot Shell	Mega Dart Shield	Left Handed Shooter	Neon Green Headband	Blaster Jammed At The Wall
Ethan	Motorized Chaos Cannon	Mega Dart Shield	Left Handed Shooter	Neon Green Headband	Blaster Jammed At The Wall
Gavin	Insanity Rage Fire Blaster	Double Ammo Drums	Right Handed Shooter	Bright Blue Mohawk	Missed A Close Range Target
Connor	Cyclone Dart Hurricane	Speed Loader Holster	Right Handed Shooter	Bright Blue Mohawk	Slipped On Foam Darts

CLUE 1

The referee checks the armory. A crate of barrel attachments was looted, and we must subtract the stolen gear from the total inventory to see what the culprit left behind.

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

Diagram showing three rows of boxes representing a 3x12 grid. The boxes are arranged in three rows and twelve columns. The first row has boxes at columns 1, 2, 3, 5, 6, 7, 8, 9, 10, 12, 13, 14, and 15. The second row has boxes at columns 1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, and 15. The third row has boxes at columns 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, and 15. The boxes are labeled with numbers: Row 1: 5216, 1920, 5564, 1426, 2213, 1278, 1278, 5705, 2213, 7241, 4735, 6452, 5564, 3990, 7241, 6452, 5216. Row 2: 1920, 5705, 1426, 5564, 5216, 1920, 5564, 3815, 5705, 3495, 3495, 5564, 1278. Row 3: 5564, 6514, 5216, 5564, 7241, 3990, 2213, 6452, 7241. The boxes at (1,1), (1,15), (2,5), and (3,3) are highlighted in orange and contain the letter 'T'.

$$8394 - 3178 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$5475 - 4197 = \boxed{} \rightarrow \boxed{\text{L}}$$

$$2222 - 9 = \boxed{} \rightarrow \boxed{\text{I}}$$

$$8866 - 2352 = \boxed{} \rightarrow \boxed{\mathbf{X}}$$

$$5745 - 1755 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$5023 - 1208 = \boxed{} \rightarrow \boxed{\text{B}}$$

7522 - 1817 = → **A**

$$3445 - 2019 = \boxed{} \rightarrow \boxed{\mathbf{v}}$$

$$5689 - 2194 = \boxed{} \rightarrow \boxed{\text{R}}$$

$$6974 - 1410 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$8615 - 2163 = \boxed{} \rightarrow \boxed{0}$$

$10334 - 3093 = \boxed{} \rightarrow \boxed{\text{N}}$

$$5998 - 1263 = \boxed{} \rightarrow \boxed{\text{D}}$$

$$3863 - 1943 = \boxed{} \rightarrow \boxed{\text{H}}$$

Scratch space:

CLUE 2 **Addition**

Shiloh scouts the arena floor for clues. He gathers up dropped foam darts from the red zone and adds them to those from the blue zone to find the overall tally.

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

Diagram illustrating a sequence of numbers and their corresponding values (T or F) across two rows of boxes.

Row 1 (Top):

- Box 1: T (5198)
- Box 2: (2459)
- Box 3: (4469)
- Box 4: (5699)
- Box 5: (4613)
- Box 6: (5699)
- Box 7: (4387)
- Box 8: (4469)
- Box 9: (9515)
- Box 10: T (5198)
- Box 11: (5699)
- Box 12: (2459)
- Box 13: (2595)
- Box 14: (2595)
- Box 15: T (5198)
- Box 16: (5699)
- Box 17: (8005)
- Box 18: (9567)
- Box 19: T (5198)
- Box 20: (2459)

Row 2 (Bottom):

- Box 1: T (5198)
- Box 2: (2459)
- Box 3: (4469)
- Box 4: (9567)
- Box 5: (4797)
- Box 6: (4797)
- Box 7: (9567)
- Box 8: (7356)
- Box 9: (2459)
- Box 10: T (5198)
- Box 11: (2459)
- Box 12: (6057)
- Box 13: (2328)
- Box 14: (9337)

$$2994 + 6521 = \boxed{} \rightarrow \mathbf{C}$$

Scratch space:

CLUE 3

Multiplication facts (1-12)

The brothers inspect the blaster racks. Each rack has multiple rows holding identical ammunition clips, and they must multiply them out to check for any missing pieces.

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

T															
96	84	64	11	35	64	42	90	5	48	48	64	120	35	20	

90	35	35	42	64	11	35	70	12	120	70	80	96	42	

$12 \times 8 = \square \rightarrow \text{T}$

$5 \times 1 = \square \rightarrow \text{I}$

$5 \times 7 = \square \rightarrow \text{O}$

$8 \times 10 = \square \rightarrow \text{R}$

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

$5 \times 4 = \square \rightarrow \text{N}$

$7 \times 12 = \square \rightarrow \text{H}$

$9 \times 10 = \square \rightarrow \text{L}$

$6 \times 8 = \square \rightarrow \text{P}$

$10 \times 7 = \square \rightarrow \text{A}$

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

$12 \times 10 = \square \rightarrow \text{D}$

$1 \times 12 = \square \rightarrow \text{M}$

$6 \times 7 = \square \rightarrow \text{S}$

Scratch space:

CLUE 4

Fractions of a number

The team finds a partially spent ammo drum near the scoring booth. We can calculate how many darts are left by finding the exact fraction of its total capacity.

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

F																	
32	7	31	2	34	19	3	31	5	29	34	16	36	3	34	31	15	14
25	34	3	34	14	5	31	29	29	34	15	19	5	31	11	10	5	

$1/3 \text{ of } 96 = \square \rightarrow \text{F}$

$1/2 \text{ of } 58 = \square \rightarrow \text{G}$

$1/8 \text{ of } 200 = \square \rightarrow \text{W}$

$5/6 \text{ of } 6 = \square \rightarrow \text{N}$

$2/10 \text{ of } 35 = \square \rightarrow \text{L}$

$4/8 \text{ of } 38 = \square \rightarrow \text{O}$

$1/6 \text{ of } 96 = \square \rightarrow \text{T}$

$1/5 \text{ of } 75 = \square \rightarrow \text{D}$

$2/6 \text{ of } 33 = \square \rightarrow \text{P}$

$4/6 \text{ of } 15 = \square \rightarrow \text{I}$

$4/8 \text{ of } 72 = \square \rightarrow \text{H}$

$2/4 \text{ of } 28 = \square \rightarrow \text{S}$

$2/8 \text{ of } 12 = \square \rightarrow \text{R}$

$1/2 \text{ of } 68 = \square \rightarrow \text{E}$

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

$2/8 \text{ of } 124 = \square \rightarrow \text{A}$

Scratch space:

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

To trace where the culprit went, the crew counts the target boards. They calculate the fraction of targets that were hit to pinpoint the shooter's accuracy.

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:

$4/8 \text{ of } 10 = \boxed{}$

$3/10 \text{ of } 40 = \boxed{}$

$6/8 \text{ of } 8 = \boxed{}$

$1/6 \text{ of } 42 = \boxed{}$

$2/6 \text{ of } 33 = \boxed{}$

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

$2/8 \text{ of } 12 = \boxed{}$

$1/3 \text{ of } 24 = \boxed{}$

$3/6 \text{ of } 4 = \boxed{}$

$2/10 \text{ of } 45 = \boxed{}$

$1/5 \text{ of } 20 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain knocks down the main flag tower, then tumbles over the giant inflatable target.
2. The villain knocks down the main flag tower, then makes a dramatic dive behind the crates.
3. The villain overruns the blue team base, then slips away through the side foam barrier.
4. The villain raids the central dart stockpile, then escapes down the main zip line.
5. The villain knocks down the main flag tower, then slips away through the side foam barrier.
6. The villain snatches the golden champion blaster, then tumbles over the giant inflatable target.
7. The villain tags the referee with a triple burst, then climbs up the sniper tower ladder.
8. The villain tags the referee with a triple burst, then makes a dramatic dive behind the crates.
9. The villain raids the central dart stockpile, then climbs up the sniper tower ladder.
10. The villain tags the referee with a triple burst, then slips away through the side foam barrier.
11. The villain overruns the blue team base, then makes a dramatic dive behind the crates.
12. The villain raids the central dart stockpile, then slips away through the side foam barrier.

Answer Key

The Ultimate Arena Sabotage

Culprit: Drew

Insanity Rage Fire Blaster · Mega Dart Shield · Right Handed Shooter · Flame Orange Cap · Slipped On Foam Darts

Trail: Start 21 → Clue 1 16 → Clue 2 10 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Subtraction): "THE VILLAIN DOES NOT HAVE THE BARREL EXTENSION"

$8394 - 3178 = 5216$ (T) · $5475 - 4197 = 1278$ (L) · $2222 - 9 = 2213$ (I) · $8866 - 2352 = 6514$ (X) · $5745 - 1755 = 3990$ (S) · $5023 - 1208 = 3815$ (B) · $7522 - 1817 = 5705$ (A) · $3445 - 2019 = 1426$ (V) · $5689 - 2194 = 3495$ (R) · $6974 - 1410 = 5564$ (E) · $8615 - 2163 = 6452$ (O) · $10334 - 3093 = 7241$ (N) · $5998 - 1263 = 4735$ (D) · $3863 - 1943 = 1920$ (H)

Clue 2 (Addition): "THE SUSPECT SHOOTS WITH THEIR RIGHT HAND"

$1648 + 3550 = 5198$ (T) · $5189 + 4378 = 9567$ (I) · $1589 + 3208 = 4797$ (R) · $2285 + 3772 = 6057$ (A) · $1984 + 3715 = 5699$ (S) · $2299 + 2088 = 4387$ (P) · $2170 + 2443 = 4613$ (U) · $2421 + 2048 = 4469$ (E) · $4435 + 2921 = 7356$ (G) · $4596 + 4741 = 9337$ (D) · $1324 + 1004 = 2328$ (N) · $1635 + 824 = 2459$ (H) · $1185 + 1410 = 2595$ (O) · $4227 + 3778 = 8005$ (W) · $2994 + 6521 = 9515$ (C)

Clue 3 (Multiplication facts (1-12)): "THE FOE SLIPPED ON LOOSE FOAM DARTS"

$12 \times 8 = 96$ (T) · $5 \times 1 = 5$ (I) · $5 \times 7 = 35$ (O) · $8 \times 10 = 80$ (R) · $8 \times 8 = 64$ (E) · $5 \times 4 = 20$ (N) · $7 \times 12 = 84$ (H) · $9 \times 10 = 90$ (L) · $6 \times 8 = 48$ (P) · $10 \times 7 = 70$ (A) · $1 \times 11 = 11$ (F) · $12 \times 10 = 120$ (D) · $1 \times 12 = 12$ (M) · $6 \times 7 = 42$ (S)

Clue 4 (Fractions of a number): "FLAME ORANGE THREADS WERE SNAGGED ON A PIN"

$1/3$ of 96 = 32 (F) · $1/2$ of 58 = 29 (G) · $1/8$ of 200 = 25 (W) · $5/6$ of 6 = 5 (N) · $2/10$ of 35 = 7 (L) · $4/8$ of 38 = 19 (O) · $1/6$ of 96 = 16 (T) · $1/5$ of 75 = 15 (D) · $2/6$ of 33 = 11 (P) · $4/6$ of 15 = 10 (I) · $4/8$ of 72 = 36 (H) · $2/4$ of 28 = 14 (S) · $2/8$ of 12 = 3 (R) · $1/2$ of 68 = 34 (E) · $2/4$ of 4 = 2 (M) · $2/8$ of 124 = 31 (A)

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

$4/8$ of 10 = 5 · $3/10$ of 40 = 12 · $6/8$ of 8 = 6 · $1/6$ of 42 = 7 · $2/6$ of 33 = 11 · $2/6$ of 3 = 1 · $2/8$ of 12 = 3 · $1/3$ of 24 = 8 · $3/6$ of 4 = 2 · $2/10$ of 45 = 9 · $1/5$ of 20 = 4