



The Case of the Missing Titan CS-50

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

Detective: _____ **Date:** _____

The grand finale of the Mega Blaster Tournament is about to start, but someone has swiped the legendary Golden Titan CS-50 from its glass display case! The culprit left behind a trail of foam darts and mechanical gears. As the lead referee, you must crack the clues, track down the thief, and save the championship match!

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 Blaster Bandit 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	TACTICAL GEAR	BLASTER GRIP	DART COLORS	TACTICAL FLAW
Ella	Mastodon	Shield Attachment	Right-Handed	Green Dart	Battery Drain
Owen	Mastodon	Ammo Belt	Right-Handed	Blue Dart	Battery Drain
Leo	Prometheus	Ammo Belt	Right-Handed	Blue Dart	Battery Drain
Zoe	Mastodon	Laser Sight	Left-Handed	Blue Dart	Battery Drain
Lucas	Nemesis	Dart Drum	Left-Handed	Orange Dart	Battery Drain
Liam	Mastodon	Scope Mount	Right-Handed	Orange Dart	Jammed Motor
Mason	Hyperfire	Scope Mount	Left-Handed	Green Dart	Battery Drain
Chloe	Mastodon	Laser Sight	Left-Handed	Green Dart	Battery Drain
Sophie	Titan CS-50	Ammo Belt	Left-Handed	Orange Dart	Battery Drain
Harper	Titan CS-50	Ammo Belt	Left-Handed	Blue Dart	Battery Drain
Aria	Hyperfire	Scope Mount	Right-Handed	Green Dart	Battery Drain
Oliver	Mastodon	Scope Mount	Right-Handed	Orange Dart	Slow Reload
Jared	Nemesis	Ammo Belt	Left-Handed	Blue Dart	Battery Drain
Jack	Hyperfire	Shield Attachment	Right-Handed	Blue Dart	Slow Reload
Noah	Prometheus	Laser Sight	Left-Handed	Green Dart	Slow Reload
Maya	Titan CS-50	Scope Mount	Right-Handed	Orange Dart	Jammed Motor
Ethan	Nemesis	Laser Sight	Left-Handed	Orange Dart	Jammed Motor
Mia	Prometheus	Scope Mount	Left-Handed	Blue Dart	Battery Drain
Gavin	Titan CS-50	Dart Drum	Left-Handed	Blue Dart	Slow Reload
Emma	Titan CS-50	Scope Mount	Left-Handed	Blue Dart	Battery Drain
Toby	Titan CS-50	Laser Sight	Left-Handed	Blue Dart	Battery Drain

CLUE 1

We found a scattered pile of mega darts near the target range. Let us add up all the blue and orange darts to find our first total.

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

$$2817 + 2703 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$4259 + 2163 = \boxed{} \rightarrow \boxed{\text{U}}$$

$$4002 + 2048 = \boxed{} \rightarrow \boxed{\mathbf{0}}$$

$1796 + 2830 = \boxed{} \rightarrow \mathbf{B}$

$1981 + 4330 = \boxed{} \rightarrow \mathbf{P}$

$1566 + 2282 = \boxed{} \rightarrow \boxed{\text{A}}$

$$6769 + 2902 = \boxed{} \rightarrow \mathbf{D}$$

$4086 + 3344 = \boxed{} \rightarrow \mathbf{M}$

$3506 + 3508 = \boxed{} \rightarrow \boxed{\text{N}}$

$$3751 + 3489 = \boxed{} \rightarrow \boxed{}$$

$$2024 + 4146 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$2301 + 5212 = \boxed{} \rightarrow \boxed{\mathbf{E}}$$

$942 + 1140 = \boxed{} \rightarrow \boxed{\text{C}}$

$$3582 + 5305 = \boxed{} \rightarrow \boxed{\text{H}}$$

Scratch space:

CLUE 2

Subtraction

The thief shot at the security targets to disable them. Subtract the empty shells from the total ammo box to see what is missing.

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

L																		
7079	2431	3148	5779	5619	1844	4409	1824	2431	1824	5816	5779	6191	1844	8585	3335	1844	5816	

5816	2431	6633	2075	6191	2431	1824

$10389 - 3310 = \square \rightarrow \boxed{\text{L}}$

$7642 - 2023 = \square \rightarrow \boxed{\text{H}}$

$9585 - 2952 = \square \rightarrow \boxed{\text{C}}$

$12969 - 4384 = \square \rightarrow \boxed{\text{P}}$

$5164 - 3340 = \square \rightarrow \boxed{\text{D}}$

$8567 - 4158 = \square \rightarrow \boxed{\text{N}}$

$4484 - 2053 = \square \rightarrow \boxed{\text{E}}$

$2104 - 29 = \square \rightarrow \boxed{\text{U}}$

$4255 - 2411 = \square \rightarrow \boxed{\text{A}}$

$8934 - 3155 = \square \rightarrow \boxed{\text{T}}$

$6167 - 3019 = \square \rightarrow \boxed{\text{F}}$

$5674 - 2339 = \square \rightarrow \boxed{\text{W}}$

$10558 - 4367 = \square \rightarrow \boxed{\text{R}}$

$6881 - 1065 = \square \rightarrow \boxed{\text{S}}$

Scratch space:

CLUE 3

Fractions of a number

The team shared a giant crate of backup batteries. Find the fraction of batteries that were fully charged to help trace the power source.

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

T								T	T										
6	32	2	3	8	4	9	6	6	2	8	3	2	39	11	3	2	11		

37	17	3	22	5	15	12

$2/10 \text{ of } 30 = \square \rightarrow \boxed{\text{T}}$

$6/10 \text{ of } 15 = \square \rightarrow \boxed{\text{A}}$

$1/3 \text{ of } 66 = \square \rightarrow \boxed{\text{C}}$

$3/4 \text{ of } 4 = \square \rightarrow \boxed{\text{I}}$

$3/4 \text{ of } 20 = \square \rightarrow \boxed{\text{L}}$

$1/2 \text{ of } 16 = \square \rightarrow \boxed{\text{R}}$

$3/6 \text{ of } 64 = \square \rightarrow \boxed{\text{H}}$

$1/2 \text{ of } 34 = \square \rightarrow \boxed{\text{U}}$

$2/8 \text{ of } 156 = \square \rightarrow \boxed{\text{S}}$

$2/6 \text{ of } 6 = \square \rightarrow \boxed{\text{E}}$

$4/5 \text{ of } 5 = \square \rightarrow \boxed{\text{B}}$

$4/6 \text{ of } 18 = \square \rightarrow \boxed{\text{Y}}$

$2/4 \text{ of } 22 = \square \rightarrow \boxed{\text{D}}$

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

$3/6 \text{ of } 74 = \square \rightarrow \boxed{\text{Q}}$

Scratch space:

CLUE 4
Multiplication facts (1-12)

A grid of target boards was knocked down in the back alley. Multiply the rows of fallen targets to calculate the thief's firing rate.

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

B																			
132	88	70	28	36	22	7	35	3	48	28	7	28	36	7	15	100	100	28	36

22	35	35	9	28	3	99	28	96	28

$11 \times 12 = \square \rightarrow \text{B}$

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

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

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

$7 \times 1 = \square \rightarrow \text{R}$

$7 \times 4 = \square \rightarrow \text{E}$

$10 \times 10 = \square \rightarrow \text{P}$

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

$3 \times 3 = \square \rightarrow \text{H}$

$11 \times 8 = \square \rightarrow \text{L}$

$4 \times 9 = \square \rightarrow \text{D}$

$3 \times 1 = \square \rightarrow \text{S}$

$9 \times 11 = \square \rightarrow \text{C}$

$5 \times 3 = \square \rightarrow \text{O}$

$11 \times 2 = \square \rightarrow \text{A}$

Scratch space:

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

The score screen shows the points scored on the master board. Work out the fraction of direct hits to pinpoint the blaster's accuracy level.

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:

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

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

$1/10 \text{ of } 60 = \boxed{}$

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

$1/4 \text{ of } 20 = \boxed{}$

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

$1/6 \text{ of } 66 = \boxed{}$

$3/4 \text{ of } 12 = \boxed{}$

$5/10 \text{ of } 2 = \boxed{}$

$4/8 \text{ of } 20 = \boxed{}$

$1/2 \text{ of } 16 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain strapped on the heavy shoulder harness, then leaped over the inflatable bunkers.
2. The villain loaded the giant fifty dart drum, then leaped over the inflatable bunkers.
3. The villain strapped on the heavy shoulder harness, then ducked behind the foam barrier.
4. The villain strapped on the heavy shoulder harness, then ran out of the locker room door.
5. The villain tested the automatic trigger system, then climbed the sniper tower.
6. The villain revved up the motorized spinning barrel, then ducked behind the foam barrier.
7. The villain revved up the motorized spinning barrel, then leaped over the inflatable bunkers.
8. The villain tested the automatic trigger system, then ducked behind the foam barrier.
9. The villain strapped on the heavy shoulder harness, then climbed the sniper tower.
10. The villain checked the batteries on the blaster, then ran out of the locker room door.
11. The villain tested the automatic trigger system, then leaped over the inflatable bunkers.
12. The villain checked the batteries on the blaster, then climbed the sniper tower.

Answer Key

The Case of the Missing Titan CS-50

Culprit: Jared

Nemesis · Ammo Belt · Left-Handed · Blue Dart · Battery Drain

Trail: Start 21 → Clue 1 14 → Clue 2 10 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE BANDIT DOES NOT USE A SCOPE MOUNT"

$2817 + 2703 = 5520$ (T) · $4259 + 2163 = 6422$ (U) · $4002 + 2048 = 6050$ (O) · $1796 + 2830 = 4626$ (B) · $1981 + 4330 = 6311$ (P) · $1566 + 2282 = 3848$ (A) · $6769 + 2902 = 9671$ (D) · $4086 + 3344 = 7430$ (M) · $3506 + 3508 = 7014$ (N) · $3751 + 3489 = 7240$ (I) · $2024 + 4146 = 6170$ (S) · $2301 + 5212 = 7513$ (E) · $942 + 1140 = 2082$ (C) · $3582 + 5305 = 8887$ (H)

Clue 2 (Subtraction): "LEFT HANDED STRAP WAS SECURED"

$10389 - 3310 = 7079$ (L) · $7642 - 2023 = 5619$ (H) · $9585 - 2952 = 6633$ (C) · $12969 - 4384 = 8585$ (P) · $5164 - 3340 = 1824$ (D) · $8567 - 4158 = 4409$ (N) · $4484 - 2053 = 2431$ (E) · $2104 - 29 = 2075$ (U) · $4255 - 2411 = 1844$ (A) · $8934 - 3155 = 5779$ (T) · $6167 - 3019 = 3148$ (F) · $5674 - 2339 = 3335$ (W) · $10558 - 4367 = 6191$ (R) · $6881 - 1065 = 5816$ (S)

Clue 3 (Fractions of a number): "THEIR BATTERIES DIED QUICKLY"

$2/10$ of 30 = 6 (T) · $6/10$ of 15 = 9 (A) · $1/3$ of 66 = 22 (C) · $3/4$ of 4 = 3 (I) · $3/4$ of 20 = 15 (L) · $1/2$ of 16 = 8 (R) · $3/6$ of 64 = 32 (H) · $1/2$ of 34 = 17 (U) · $2/8$ of 156 = 39 (S) · $2/6$ of 6 = 2 (E) · $4/5$ of 5 = 4 (B) · $4/6$ of 18 = 12 (Y) · $2/4$ of 22 = 11 (D) · $5/6$ of 6 = 5 (K) · $3/6$ of 74 = 37 (Q)

Clue 4 (Multiplication facts (1-12)): "BLUE DARTS WERE DROPPED AT THE SCENE"

$11 \times 12 = 132$ (B) · $8 \times 6 = 48$ (W) · $10 \times 7 = 70$ (U) · $7 \times 5 = 35$ (T) · $7 \times 1 = 7$ (R) · $7 \times 4 = 28$ (E) · $10 \times 10 = 100$ (P) · $12 \times 8 = 96$ (N) · $3 \times 3 = 9$ (H) · $11 \times 8 = 88$ (L) · $4 \times 9 = 36$ (D) · $3 \times 1 = 3$ (S) · $9 \times 11 = 99$ (C) · $5 \times 3 = 15$ (O) · $11 \times 2 = 22$ (A)

Clue 5 (Fractions of a number): surviving statement is box 3 → Jared

$2/10$ of 10 = 2 · $2/4$ of 14 = 7 · $1/10$ of 60 = 6 · $4/10$ of 10 = 4 · $1/4$ of 20 = 5 · $2/8$ of 48 = 12 · $1/6$ of 66 = 11 · $3/4$ of 12 = 9 · $5/10$ of 2 = 1 · $4/8$ of 20 = 10 · $1/2$ of 16 = 8