



The Great Golden Dart Heist

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

Detective: _____ **Date:** _____

During the final round of the backyard battle, someone snatched the legendary Golden Mega-Dart from the referee's command post! Only a true blaster champion could have made off with the prize under the cover of a massive foam storm.

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 Phantom Sniper 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	HELMET COLOR	GEAR WEAKNESS
Mason	Rapidstrike Elite	Scope Goggles	Left-handed grip	Bright blue helmet	Loud plastic squeaks
Toby	Rapidstrike Elite	Dart Holster	Left-handed grip	Bright blue helmet	Slippery grip tape
Leo	Rapidstrike Elite	Tactical Vest	Right-handed grip	Bright blue helmet	Slippery grip tape
Owen	Sniper Centurion	Dart Holster	Right-handed grip	Bright blue helmet	Soggy foam darts
Drew	Double-Barrel Recon	Dart Holster	Left-handed grip	Lime green helmet	Slippery grip tape
Kai	Mega Cyclone	Dart Holster	Right-handed grip	Neon orange helmet	Soggy foam darts
Ian	Tactical Disruptor	Shield Screen	Right-handed grip	Neon orange helmet	Loud plastic squeaks
Finley	Mega Cyclone	Scope Goggles	Right-handed grip	Neon orange helmet	Slippery grip tape
Quinn	Double-Barrel Recon	Dart Holster	Left-handed grip	Bright blue helmet	Slippery grip tape
Gavin	Sniper Centurion	Shield Screen	Left-handed grip	Neon orange helmet	Loud plastic squeaks
Nico	Tactical Disruptor	Dart Holster	Right-handed grip	Bright blue helmet	Soggy foam darts
Mia	Sniper Centurion	Scope Goggles	Right-handed grip	Neon orange helmet	Soggy foam darts
Jax	Double-Barrel Recon	Tactical Vest	Left-handed grip	Lime green helmet	Loud plastic squeaks
Sienna	Rapidstrike Elite	Tactical Vest	Right-handed grip	Lime green helmet	Slippery grip tape
Eli	Sniper Centurion	Shield Screen	Right-handed grip	Lime green helmet	Slippery grip tape
Zoe	Double-Barrel Recon	Tactical Vest	Right-handed grip	Lime green helmet	Soggy foam darts
Chase	Sniper Centurion	Laser Sight	Right-handed grip	Lime green helmet	Slippery grip tape
Ryder	Tactical Disruptor	Dart Holster	Left-handed grip	Neon orange helmet	Soggy foam darts
Wyatt	Tactical Disruptor	Tactical Vest	Right-handed grip	Neon orange helmet	Soggy foam darts
Zane	Mega Cyclone	Shield Screen	Right-handed grip	Lime green helmet	Slippery grip tape
Brooke	Rapidstrike Elite	Scope Goggles	Right-handed grip	Lime green helmet	Slippery grip tape

CLUE 1 Addition

To trace the culprit, we must first count the total foam darts gathered by the cleanup crew.

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

T								T												
7147	2577	4394	5960	2577	8040	2728	7147	6039	8737	6996	2728	7878	5960	4394	4779	4721	6039	4394	6996	
		T																	T	
2728	6039	7147	3773	6996	4394	8040	6366	8040	6996	4394	4779	6996	7878	8604	2577	7147				

$3460 + 3687 = \square \rightarrow$ T	$2175 + 2546 = \square \rightarrow$ D	$4199 + 2797 = \square \rightarrow$ S
$1119 + 1609 = \square \rightarrow$ N	$4858 + 3182 = \square \rightarrow$ A	$1895 + 2499 = \square \rightarrow$ E
$2011 + 1762 = \square \rightarrow$ U	$4608 + 4129 = \square \rightarrow$ M	$3875 + 2164 = \square \rightarrow$ O
$4167 + 3711 = \square \rightarrow$ I	$4742 + 3862 = \square \rightarrow$ G	$2348 + 4018 = \square \rightarrow$ L
$904 + 1673 = \square \rightarrow$ H	$1526 + 3253 = \square \rightarrow$ R	$3784 + 2176 = \square \rightarrow$ P

Scratch space:

Subtraction

We lost some gear in the muddy trenches, but subtracting the broken blasters leaves us with our first clue.

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

8429 4616 2810 2370 8454 4787 4431 5255 4787 7401 8418 2239 8429 5359 8047 2239 7643 4612

4616 4787 7401 8418 2810 8418

$$11752 - 3323 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$8572 - 3785 = \boxed{} \rightarrow \boxed{\text{A}}$$

$$7141 - 4902 = \boxed{} \rightarrow \boxed{\text{I}}$$

$$8540 - 1879 = \boxed{} \rightarrow \boxed{\text{L}}$$

$8494 - 3135 = \boxed{} \rightarrow \mathbf{G}$

$$6255 - 1639 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$5855 - 3045 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$8802 - 1159 = \boxed{} \rightarrow \boxed{\text{P}}$$

$9217 - 3962 = \boxed{} \rightarrow \boxed{\text{B}}$

$$13046 - 4999 = \boxed{} \rightarrow \boxed{\text{R}}$$

$5363 - 2993 = \boxed{} \rightarrow \boxed{\text{F}}$

$8956 - 538 = \boxed{} \rightarrow \boxed{\text{D}}$

$$6366 - 1935 = \boxed{} \rightarrow \boxed{\text{M}}$$

$10329 - 2928 = \boxed{} \rightarrow \boxed{\text{N}}$

$$7444 - 2832 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$12006 - 3552 = \boxed{} \rightarrow \boxed{0}$$

Scratch space:

CLUE 3

The electronic target scoreboard flickered, and checking the place values of the score cracked a hidden code.

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

A 3x10 grid of boxes. The first row contains the numbers 5000, 20, 300, 600, 600, 80, 100, 4000, 800, 100, 300, 600, 10, 700, 600, and 80. The second row contains 70, 700, 9000, 80, 5000, 10, 60, 80, 40, 300, 20, 20, 700, 300, and 1000. The third row contains 30, 2000, 70, 8000, 20, and 80. The box containing the number 5000 in the second row is highlighted with an orange background and contains a large orange letter 'S'.

What is the value of the 5 in 45,779? → **S**

What is the value of the 6 in 52,367? → **H**

What is the value of the 4 in 184,992? → **Y**

What is the value of the 3 in 47,364? →

What is the value of the 3 in 698,238? → **F**

What is the value of the 7 in 562,716? → **A**

What is the value of the 7 in 80,673? → **M**

What is the value of the 6 in 50,623? → **P**

What is the value of the 2 in 82,181? → **U**

What is the value of the 8 in 59,786? → **E**

What is the value of the 4 in 538,549? → **V**

What is the value of the 1 in 23,312? → **T**

What is the value of the 9 in 859,110? → **K**

What is the value of the 8 in 448,272? → **B**

What is the value of the 8 in 190,893? → **G**

What is the value of the 1 in 52,162? → **R**

What is the value of the 2 in 13,526? → **L**

What is the value of the 1 in 681,793? → **N**

Scratch space:

CLUE 4
Fractions of a number

The tactical squad split their remaining foam darts into equal fractions to plan the next surprise attack.

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

W															
22	3	28	30	27	7	4	23	2	25	3	33	36	3	3	7
38	3	23	25	3	29	34	12	2	7	29	12	29	29	38	3
13	40	3	7	3											

$2/8 \text{ of } 88 = \square \rightarrow \text{W}$

$6/10 \text{ of } 20 = \square \rightarrow \text{A}$

$1/3 \text{ of } 9 = \square \rightarrow \text{E}$

$2/4 \text{ of } 68 = \square \rightarrow \text{P}$

$2/8 \text{ of } 120 = \square \rightarrow \text{O}$

$3/6 \text{ of } 50 = \square \rightarrow \text{M}$

$9/10 \text{ of } 30 = \square \rightarrow \text{U}$

$2/5 \text{ of } 5 = \square \rightarrow \text{I}$

$5/6 \text{ of } 48 = \square \rightarrow \text{C}$

$4/8 \text{ of } 76 = \square \rightarrow \text{H}$

$1/4 \text{ of } 28 = \square \rightarrow \text{N}$

$2/10 \text{ of } 65 = \square \rightarrow \text{S}$

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

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

$3/5 \text{ of } 55 = \square \rightarrow \text{G}$

$4/6 \text{ of } 54 = \square \rightarrow \text{R}$

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

$4/10 \text{ of } 70 = \square \rightarrow \text{F}$

Scratch space:

CLUE 5**Division facts (1-12) - the last clue**

We must divide the remaining cardboard shields equally among the defense squads to find the culprit's trail.

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:

$30 \div 5 = \boxed{}$

$7 \div 7 = \boxed{}$

$110 \div 11 = \boxed{}$

$5 \div 1 = \boxed{}$

$48 \div 6 = \boxed{}$

$21 \div 3 = \boxed{}$

$16 \div 4 = \boxed{}$

$24 \div 2 = \boxed{}$

$20 \div 10 = \boxed{}$

$90 \div 10 = \boxed{}$

$22 \div 2 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain sprays foam darts in a wide arc, then snatches the golden trophy.
2. The villain launches a mega foam rocket, then rolls into the bushes.
3. The villain unleashes a dual barrel blast, then dives behind a plastic barricade.
4. The villain launches a mega foam rocket, then dives behind a plastic barricade.
5. The villain launches a mega foam rocket, then scrambles to reload the clip.
6. The villain fires a volley of rapid darts, then snatches the golden trophy.
7. The villain fires a volley of rapid darts, then dives behind a plastic barricade.
8. The villain sprays foam darts in a wide arc, then rolls into the bushes.
9. The villain snipes a target from afar, then leaps over the cardboard fort.
10. The villain unleashes a dual barrel blast, then scrambles to reload the clip.
11. The villain snipes a target from afar, then scrambles to reload the clip.
12. The villain launches a mega foam rocket, then snatches the golden trophy.

Answer Key

The Great Golden Dart Heist

Culprit: Sienna

Rapidstrike Elite · Tactical Vest · Right-handed grip · Lime green helmet · Slippery grip tape

Trail: Start 21 → Clue 1 20 → Clue 2 13 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE PHANTOM SNIPER DOES NOT USE A LASER SIGHT"

$3460 + 3687 = 7147$ (T) · $2175 + 2546 = 4721$ (D) · $4199 + 2797 = 6996$ (S) · $1119 + 1609 = 2728$ (N) · $4858 + 3182 = 8040$ (A) · $1895 + 2499 = 4394$ (E) · $2011 + 1762 = 3773$ (U) · $4608 + 4129 = 8737$ (M) · $3875 + 2164 = 6039$ (O) · $4167 + 3711 = 7878$ (I) · $4742 + 3862 = 8604$ (G) · $2348 + 4018 = 6366$ (L) · $904 + 1673 = 2577$ (H) · $1526 + 3253 = 4779$ (R) · $3784 + 2176 = 5960$ (P)

Clue 2 (Subtraction): "THE FOAM BANDIT GRIPS THE BLASTER RIGHT HANDED"

$11752 - 3323 = 8429$ (T) · $8572 - 3785 = 4787$ (A) · $7141 - 4902 = 2239$ (I) · $8540 - 1879 = 6661$ (L) · $8494 - 3135 = 5359$ (G) · $6255 - 1639 = 4616$ (H) · $5855 - 3045 = 2810$ (E) · $8802 - 1159 = 7643$ (P) · $9217 - 3962 = 5255$ (B) · $13046 - 4999 = 8047$ (R) · $5363 - 2993 = 2370$ (F) · $8956 - 538 = 8418$ (D) · $6366 - 1935 = 4431$ (M) · $10329 - 2928 = 7401$ (N) · $7444 - 2832 = 4612$ (S) · $12006 - 3552 = 8454$ (O)

Clue 3 (Place value): "SLIPPERY GRIP TAPE MAKES THE VILLAIN FUMBLE"

What is the value of the 5 in 45,779? = 5000 (S) · What is the value of the 6 in 52,367? = 60 (H) · What is the value of the 4 in 184,992? = 4000 (Y) · What is the value of the 3 in 47,364? = 300 (I) · What is the value of the 3 in 698,238? = 30 (F) · What is the value of the 7 in 562,716? = 700 (A) · What is the value of the 7 in 80,673? = 70 (M) · What is the value of the 6 in 50,623? = 600 (P) · What is the value of the 2 in 82,181? = 2000 (U) · What is the value of the 8 in 59,786? = 80 (E) · What is the value of the 4 in 538,549? = 40 (V) · What is the value of the 1 in 23,312? = 10 (T) · What is the value of the 9 in 859,110? = 9000 (K) · What is the value of the 8 in 448,272? = 8000 (B) · What is the value of the 8 in 190,893? = 800 (G) · What is the value of the 1 in 52,162? = 100 (R) · What is the value of the 2 in 13,526? = 20 (L) · What is the value of the 1 in 681,793? = 1000 (N)

Clue 4 (Fractions of a number): "WE FOUND LIME GREEN HELMET PAINT AT THE SCENE"

$\frac{2}{8}$ of 88 = 22 (W) · $\frac{6}{10}$ of 20 = 12 (A) · $\frac{1}{3}$ of 9 = 3 (E) · $\frac{2}{4}$ of 68 = 34 (P) · $\frac{2}{8}$ of 120 = 30 (O) · $\frac{3}{6}$ of 50 = 25 (M) · $\frac{9}{10}$ of 30 = 27 (U) · $\frac{2}{5}$ of 5 = 2 (I) · $\frac{5}{6}$ of 48 = 40 (C) · $\frac{4}{8}$ of 76 = 38 (H) · $\frac{1}{4}$ of 28 = 7 (N) · $\frac{2}{10}$ of 65 = 13 (S) · $\frac{4}{8}$ of 8 = 4 (D) · $\frac{1}{2}$ of 58 = 29 (T) · $\frac{3}{5}$ of 55 = 33 (G) · $\frac{4}{6}$ of 54 = 36 (R) · $\frac{1}{5}$ of 115 = 23 (L) · $\frac{4}{10}$ of 70 = 28 (F)

Clue 5 (Division facts (1-12)): surviving statement is box 3 → Sienna

$30 \div 5 = 6$ · $7 \div 7 = 1$ · $110 \div 11 = 10$ · $5 \div 1 = 5$ · $48 \div 6 = 8$ · $21 \div 3 = 7$ · $16 \div 4 = 4$ · $24 \div 2 = 12$ · $20 \div 10 = 2$ · $90 \div 10 = 9$ · $22 \div 2 = 11$