



The Golden Baton Heist

Grade 5 math · Multiplication, Fractions of a number, Order of operations, Rounding, Division · Reading level grades 3-4

Detective: _____ **Date:** _____

The championship track meet is today! But someone ran off with the Golden Baton right before the big race. Coach Dash needs your help to track down the speedy suspect!

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 speedy suspect is _____

Possible suspects

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

NAME	RUNNING STYLE	TRACK GEAR	LACE STYLE	HAIRBAND COLOR	FAVORITE SNACK
Usain	Sprinting	Smart Watch	Right Shoelace Knot	Green Hairband	Orange Slices
Grant	Marathon Running	Metal Spikes	Left Shoelace Knot	Blue Hairband	Orange Slices
Noah	Hurdles	Smart Watch	Right Shoelace Knot	Blue Hairband	Orange Slices
Deena	Sprinting	Metal Spikes	Left Shoelace Knot	Green Hairband	Energy Gel
Eliud	Hurdles	Metal Spikes	Right Shoelace Knot	Blue Hairband	Energy Gel
Prefontaine	Trail Running	Metal Spikes	Right Shoelace Knot	Red Hairband	Yellow Banana
Florence	Marathon Running	Running Shades	Left Shoelace Knot	Blue Hairband	Orange Slices
Meb	Relay Racing	Metal Spikes	Right Shoelace Knot	Green Hairband	Orange Slices
Allyson	Relay Racing	Running Shades	Right Shoelace Knot	Red Hairband	Yellow Banana
Raevyn	Hurdles	Water Bottle	Left Shoelace Knot	Blue Hairband	Orange Slices
Christian	Trail Running	Water Bottle	Left Shoelace Knot	Blue Hairband	Energy Gel
Paula	Hurdles	Water Bottle	Right Shoelace Knot	Red Hairband	Yellow Banana
Kara	Sprinting	Smart Watch	Left Shoelace Knot	Blue Hairband	Orange Slices
Roger	Hurdles	Water Bottle	Left Shoelace Knot	Red Hairband	Orange Slices
Gabby	Relay Racing	Smart Watch	Left Shoelace Knot	Blue Hairband	Yellow Banana
Mo	Trail Running	Running Shades	Left Shoelace Knot	Blue Hairband	Orange Slices
Shalane	Relay Racing	Water Bottle	Right Shoelace Knot	Red Hairband	Orange Slices
Sydney	Marathon Running	Water Bottle	Left Shoelace Knot	Blue Hairband	Yellow Banana
Emil	Relay Racing	Running Shades	Left Shoelace Knot	Blue Hairband	Energy Gel
Des	Relay Racing	Smart Watch	Left Shoelace Knot	Green Hairband	Yellow Banana
Galen	Relay Racing	Metal Spikes	Right Shoelace Knot	Red Hairband	Orange Slices

CLUE 1
Multiplication facts (1-12)

The track team lined up their water bottles in neat rows on the bench. Let us count how many bottles are there to find our first clue.

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

T																T
8	11	16	27	1	15	15	16	27	44	96	16	5	15	96	8	

						T								
55	16	110	27	25	16	8	110	2	5	7	10	120	16	5

$4 \times 2 = \square \rightarrow$ T	$10 \times 11 = \square \rightarrow$ A	$4 \times 4 = \square \rightarrow$ E	
$5 \times 3 = \square \rightarrow$ N	$12 \times 8 = \square \rightarrow$ O	$1 \times 10 = \square \rightarrow$ I	
$1 \times 11 = \square \rightarrow$ H	$4 \times 11 = \square \rightarrow$ D	$5 \times 1 = \square \rightarrow$ S	
$12 \times 10 = \square \rightarrow$ K	$5 \times 11 = \square \rightarrow$ W	$5 \times 5 = \square \rightarrow$ M	
$1 \times 1 = \square \rightarrow$ U	$3 \times 9 = \square \rightarrow$ R	$2 \times 1 = \square \rightarrow$ L	$1 \times 7 = \square \rightarrow$ P

Scratch space:

CLUE 2
Fractions of a number

The coach split a big bag of fresh energy chews with the sprinters. Let us calculate how many pieces they shared to get the next lead.

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

T										T	T					T					
2	27	30	28	5	28	19	30	22	2	2	23	30	28	2	27	30	23	13			

			T																	T
34	30	10	2	28	27	40	30	34	16	22	30	10	23	13	28	2				

$1/6 \text{ of } 12 = \square \rightarrow \boxed{\text{T}}$

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

$1/10 \text{ of } 190 = \square \rightarrow \boxed{\text{P}}$

$8/10 \text{ of } 20 = \square \rightarrow \boxed{\text{A}}$

$2/4 \text{ of } 26 = \square \rightarrow \boxed{\text{R}}$

$4/6 \text{ of } 51 = \square \rightarrow \boxed{\text{L}}$

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

$1/4 \text{ of } 112 = \square \rightarrow \boxed{\text{S}}$

$4/6 \text{ of } 45 = \square \rightarrow \boxed{\text{E}}$

$2/10 \text{ of } 50 = \square \rightarrow \boxed{\text{F}}$

$5/10 \text{ of } 46 = \square \rightarrow \boxed{\text{I}}$

$2/6 \text{ of } 81 = \square \rightarrow \boxed{\text{H}}$

$1/2 \text{ of } 44 = \square \rightarrow \boxed{\text{C}}$

Scratch space:

CLUE 3
Order of operations

We found a training log with multiple sets of lap times written in a tricky equation. Solve the order of steps to unlock this secret clue.

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

T																
67	61	40	31	27	8	47	64	40	53	69	42	78	47	57	58	31
69	42	8	32	37	40	64	33	57	58	40	64					

$31 + 4 \times 9 = \square \rightarrow \boxed{\text{T}}$

$12 + 7 \times 3 = \square \rightarrow \boxed{\text{L}}$

$6 \times 12 - 11 = \square \rightarrow \boxed{\text{H}}$

$25 + 2 \times 3 = \square \rightarrow \boxed{\text{Y}}$

$4 \times 4 - 8 = \square \rightarrow \boxed{\text{A}}$

$6 \times 9 - 1 = \square \rightarrow \boxed{\text{F}}$

$6 \times 8 - 11 = \square \rightarrow \boxed{\text{G}}$

$9 \times 7 - 5 = \square \rightarrow \boxed{\text{C}}$

$51 + 2 \times 3 = \square \rightarrow \boxed{\text{I}}$

$58 + 5 \times 4 = \square \rightarrow \boxed{\text{J}}$

$5 \times 6 - 3 = \square \rightarrow \boxed{\text{P}}$

$6 \times 7 - 2 = \square \rightarrow \boxed{\text{E}}$

$50 + 7 \times 2 = \square \rightarrow \boxed{\text{S}}$

$2 + 6 \times 5 = \square \rightarrow \boxed{\text{N}}$

$11 \times 6 - 24 = \square \rightarrow \boxed{\text{R}}$

$11 \times 5 - 8 = \square \rightarrow \boxed{\text{U}}$

$9 \times 9 - 12 = \square \rightarrow \boxed{\text{O}}$

Scratch space:

CLUE 4 Rounding

The digital scoreboard got wet and rounded the track times to the nearest ten. Round the numbers to reveal the suspect's path.

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

W																
4300	170	130	430	50	110	1300	200	300	3000	20	170	3000	7000	2000	90	

2300	9000	50	170	2000	200	30	20	2300	200	110	1300

Round 4,322 to the nearest hundred → **W**

Round 9,364 to the nearest thousand → **L**

Round 430 to the nearest ten → **O**

Round 92 to the nearest ten → **Y**

Round 6,571 to the nearest thousand → **C**

Round 243 to the nearest hundred → **A**

Round 1,906 to the nearest thousand → **H**

Round 328 to the nearest hundred → **S**

Round 1,285 to the nearest hundred → **D**

Round 24 to the nearest ten → **R**

Round 3,493 to the nearest thousand → **T**

Round 113 to the nearest ten → **N**

Round 34 to the nearest ten → **I**

Round 130 to the nearest ten → **F**

Round 46 to the nearest ten → **U**

Round 2,307 to the nearest hundred → **B**

Round 173 to the nearest ten → **E**

Scratch space:

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

A runner shared their extra headbands equally among the relay team. Divide the headbands to cross the finish line and get the final clue.

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:

$8 \div 8 = \boxed{}$

$48 \div 6 = \boxed{}$

$27 \div 3 = \boxed{}$

$40 \div 4 = \boxed{}$

$30 \div 5 = \boxed{}$

$88 \div 8 = \boxed{}$

$10 \div 5 = \boxed{}$

$36 \div 12 = \boxed{}$

$32 \div 8 = \boxed{}$

$144 \div 12 = \boxed{}$

$7 \div 1 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain jumps high hurdles in a single bound, then drops a leaky water bottle.
2. The villain sprints past the timing gates, then drops a leaky water bottle.
3. The villain jumps high hurdles in a single bound, then leaves deep scratches with spikes.
4. The villain leaps over the steeplechase pit, then leaves deep scratches with spikes.
5. The villain leaps over the steeplechase pit, then slips on some dark running shades.
6. The villain jumps high hurdles in a single bound, then checks their fast smart watch.
7. The villain runs a record breaking marathon loop, then adjusts a sweaty terry headband.
8. The villain sprints past the timing gates, then checks their fast smart watch.
9. The villain runs a record breaking marathon loop, then slips on some dark running shades.
10. The villain leaps over the steeplechase pit, then drops a leaky water bottle.
11. The villain sprints past the timing gates, then adjusts a sweaty terry headband.
12. The villain runs a record breaking marathon loop, then checks their fast smart watch.

Answer Key

The Golden Baton Heist

Culprit: Mo

Trail Running · Running Shades · Left Shoelace Knot · Blue Hairband · Orange Slices

Trail: Start 21 → Clue 1 15 → Clue 2 10 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE RUNNER DOES NOT WEAR METAL SPIKES"

$4 \times 2 = 8$ (T) · $10 \times 11 = 110$ (A) · $4 \times 4 = 16$ (E) · $5 \times 3 = 15$ (N) · $12 \times 8 = 96$ (O) · $1 \times 10 = 10$ (I) · $1 \times 11 = 11$ (H) · $4 \times 11 = 44$ (D) · $5 \times 1 = 5$ (S) · $12 \times 10 = 120$ (K) · $5 \times 11 = 55$ (W) · $5 \times 5 = 25$ (M) · $1 \times 1 = 1$ (U) · $3 \times 9 = 27$ (R) · $2 \times 1 = 2$ (L) · $1 \times 7 = 7$ (P)

Clue 2 (Fractions of a number): "THE SUSPECT TIES THEIR LEFT SHOELACE FIRST"

$\frac{1}{6}$ of 12 = 2 (T) · $\frac{4}{8}$ of 10 = 5 (U) · $\frac{1}{10}$ of 190 = 19 (P) · $\frac{8}{10}$ of 20 = 16 (A) · $\frac{2}{4}$ of 26 = 13 (R) · $\frac{4}{6}$ of 51 = 34 (L) · $\frac{3}{6}$ of 80 = 40 (O) · $\frac{1}{4}$ of 112 = 28 (S) · $\frac{4}{6}$ of 45 = 30 (E) · $\frac{2}{10}$ of 50 = 10 (F) · $\frac{5}{10}$ of 46 = 23 (I) · $\frac{2}{6}$ of 81 = 27 (H) · $\frac{1}{2}$ of 44 = 22 (C)

Clue 3 (Order of operations): "THEY PAUSE FOR JUICY ORANGE SLICES"

$31 + 4 \times 9 = 67$ (T) · $12 + 7 \times 3 = 33$ (L) · $6 \times 12 - 11 = 61$ (H) · $25 + 2 \times 3 = 31$ (Y) · $4 \times 4 - 8 = 8$ (A) · $6 \times 9 - 1 = 53$ (F) · $6 \times 8 - 11 = 37$ (G) · $9 \times 7 - 5 = 58$ (C) · $51 + 2 \times 3 = 57$ (I) · $58 + 5 \times 4 = 78$ (J) · $5 \times 6 - 3 = 27$ (P) · $6 \times 7 - 2 = 40$ (E) · $50 + 7 \times 2 = 64$ (S) · $2 + 6 \times 5 = 32$ (N) · $11 \times 6 - 24 = 42$ (R) · $11 \times 5 - 8 = 47$ (U) · $9 \times 9 - 12 = 69$ (O)

Clue 4 (Rounding): "WE FOUND A STRETCHY BLUE HAIRBAND"

Round 4,322 to the nearest hundred = 4300 (W) · Round 9,364 to the nearest thousand = 9000 (L) · Round 430 to the nearest ten = 430 (O) · Round 92 to the nearest ten = 90 (Y) · Round 6,571 to the nearest thousand = 7000 (C) · Round 243 to the nearest hundred = 200 (A) · Round 1,906 to the nearest thousand = 2000 (H) · Round 328 to the nearest hundred = 300 (S) · Round 1,285 to the nearest hundred = 1300 (D) · Round 24 to the nearest ten = 20 (R) · Round 3,493 to the nearest thousand = 3000 (T) · Round 113 to the nearest ten = 110 (N) · Round 34 to the nearest ten = 30 (I) · Round 130 to the nearest ten = 130 (F) · Round 46 to the nearest ten = 50 (U) · Round 2,307 to the nearest hundred = 2300 (B) · Round 173 to the nearest ten = 170 (E)

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

$8 \div 8 = 1$ · $48 \div 6 = 8$ · $27 \div 3 = 9$ · $40 \div 4 = 10$ · $30 \div 5 = 6$ · $88 \div 8 = 11$ · $10 \div 5 = 2$ · $36 \div 12 = 3$ · $32 \div 8 = 4$ · $144 \div 12 = 12$ · $7 \div 1 = 7$