



The Grand Slam Mystery

Grade 8 math · Addition, Multiplication, Rounding, Word problems, Division · Reading level grades 7-9

Detective: _____ Date: _____

During the championship game at Grand Slam Park, someone swapped the official game balls with weighted synthetic replicas. The head groundskeeper needs your help to analyze the evidence, solve decoding clues, and find the real culprit.

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 diamond saboteur is _____

Possible suspects

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

NAME	SIGNATURE PITCH	GEAR CHOICE	THROWING STANCE	CAP HAIRSTYLE	PITCHING FLAW
Pedro Martinez	Fastball Drive	Grip Tape	Right-handed Thrower	Flowing Mullet	Siren Loudness
Roberto Clemente	Curveball Snap	Tinted Visor	Left-handed Thrower	Flowing Mullet	Infield Dust
Nolan Ryan	Curveball Snap	Pine Tar	Right-handed Thrower	Short Buzz	Bright Floodlights
Gerrit Cole	Slider Wipeout	Pine Tar	Left-handed Thrower	Curly Afro	Infield Dust
Mookie Betts	Slider Wipeout	Grip Tape	Left-handed Thrower	Flowing Mullet	Infield Dust
Hank Aaron	Slider Wipeout	Catcher Shin Guards	Right-handed Thrower	Short Buzz	Bright Floodlights
Shohei Ohtani	Curveball Snap	Elbow Guard	Left-handed Thrower	Curly Afro	Bright Floodlights
Jackie Robinson	Fastball Drive	Grip Tape	Right-handed Thrower	Curly Afro	Infield Dust
Derek Jeter	Curveball Snap	Grip Tape	Left-handed Thrower	Curly Afro	Infield Dust
Tom Glavine	Fastball Drive	Tinted Visor	Left-handed Thrower	Curly Afro	Siren Loudness
Aaron Judge	Changeup Float	Grip Tape	Left-handed Thrower	Curly Afro	Infield Dust
Willie Mays	Curveball Snap	Tinted Visor	Right-handed Thrower	Short Buzz	Siren Loudness
Ted Williams	Slider Wipeout	Catcher Shin Guards	Right-handed Thrower	Short Buzz	Siren Loudness
Justin Verlander	Curveball Snap	Elbow Guard	Left-handed Thrower	Curly Afro	Infield Dust
Lou Gehrig	Knuckleball Drift	Elbow Guard	Left-handed Thrower	Short Buzz	Infield Dust
Clayton Kershaw	Changeup Float	Pine Tar	Left-handed Thrower	Curly Afro	Bright Floodlights
Sandy Koufax	Fastball Drive	Pine Tar	Left-handed Thrower	Flowing Mullet	Siren Loudness
Bob Gibson	Knuckleball Drift	Grip Tape	Left-handed Thrower	Flowing Mullet	Bright Floodlights
Cal Ripken Jr	Fastball Drive	Catcher Shin Guards	Right-handed Thrower	Curly Afro	Bright Floodlights
Max Scherzer	Knuckleball Drift	Catcher Shin Guards	Left-handed Thrower	Curly Afro	Bright Floodlights
Mike Trout	Fastball Drive	Catcher Shin Guards	Left-handed Thrower	Curly Afro	Infield Dust

CLUE 1 Addition

You tally up the dugout inventory counts to decode the first clue about the gear used.

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

T								T								T
5476	3317	7776	9061	7138	9061	7513	7776	4422	5476	4217	4826	7776	9061	4241	4826	5476

					T		
7138	9061	7776	7513	7321	4241	7776	5476

3639 + 1837 = → T	4965 + 2173 = → U	4103 + 2879 = → A
4984 + 2792 = → E	1269 + 2948 = → D	1709 + 1608 = → H
2804 + 2022 = → O	1460 + 2962 = → C	1129 + 1120 = → R
4363 + 4698 = → S	2238 + 5083 = → I	2715 + 4798 = → P
2072 + 2169 = → N		

Scratch space:

Multiplication facts (1-12)

Next, you calculate total seats per stadium section by multiplying rows and aisles.

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

$12 \times 8 = \square \rightarrow \mathbf{A}$

$$2 \times 2 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$12 \times 10 = \boxed{} \rightarrow \boxed{\text{U}}$$

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

$5 \times 3 =$ $\rightarrow$ **T**

$9 \times 1 = \square \rightarrow \mathbf{S}$

$$3 \times 6 = \boxed{} \rightarrow \boxed{0}$$

$9 \times 9 = \square \rightarrow \boxed{\text{Y}}$

$1 \times 11 = \square \rightarrow \boxed{\mathbf{G}}$

$4 \times 5 = \square \rightarrow \boxed{\mathbf{M}}$

$10 \times 9 = \boxed{} \rightarrow \boxed{1}$

$6 \times 12 = \boxed{} \rightarrow \boxed{\text{R}}$

$9 \times 5 = \boxed{} \rightarrow \boxed{\text{F}}$

$1 \times 2 = \boxed{} \rightarrow \boxed{\text{K}}$

$11 \times 2 = \boxed{} \rightarrow \boxed{\text{L}}$

$8 \times 2 = \square \rightarrow \boxed{\mathbf{N}}$

$9 \times 12 = \square \rightarrow \boxed{\mathbf{D}}$

$1 \times 1 = \boxed{} \rightarrow \boxed{\mathbf{B}}$

$3 \times 9 = \square \rightarrow \boxed{W}$

Scratch space:

Rounding

The pitch-speed radar display only shows rounded numbers, which helps narrow down the speed reading.

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 for True, F for False):

Index	Value	Result (T/F)
1	9000	T
2	3700	F
3	170	F
4	5000	F
5	50	F
6	2000	F
7	2000	F
8	30	F
9	50	F
10	700	F
11	1700	F
12	170	F
13	200	F
14	170	F
15	1700	F
16	2900	F
17	30	F
18	9000	T
19	170	F
20	290	F
21	170	F
22	20	F
23	50	F
24	700	F
25	50	F
26	700	F
27	1300	F
28	50	F
29	170	F
30	2000	F
31	20	F
32	20	F
33	900	F
34	1700	F
35	9000	T

Round 9,430 to the nearest thousand → **T**

Round 173 to the nearest hundred $\rightarrow$ **Y**

Round 5,342 to the nearest thousand $\rightarrow$ **V**

Round 20 to the nearest ten → **D**

Round 1,651 to the nearest hundred $\rightarrow$ **S**

Round 2,128 to the nearest thousand $\rightarrow$ **L**

Round 54 to the nearest ten $\rightarrow$

Round 1,333 to the nearest hundred → **F**

Round 173 to the nearest ten $\rightarrow$ **E**

Round 3,743 to the nearest hundred → **H**

Round 723 to the nearest hundred $\rightarrow$ **N**

Round 287 to the nearest ten $\rightarrow$ **R**

Round 26 to the nearest ten $\rightarrow$ **A**

Round 856 to the nearest hundred $\rightarrow$ **U**

Round 2,869 to the nearest hundred $\rightarrow$ **W**

Scratch space:

CLUE 4

Word problems

The equipment manager brings you situational game logs that require solving word problems.

Solve each problem, then write its letter in the boxes to fill in the missing word.

A strand of C O hair turned up at the scene.

45 118 99 32 54 89 104 99

There were 62 batting helmets. 17 were used up. How many batting helmets are left?

Answer: → C

Equipment manager found 3 baseballs yesterday and 101 more today. How many baseballs in all?

Answer: → F

Equipment manager lined up 9 rows of 11 baseballs. How many baseballs in all?

Answer: → R

Equipment manager lined up 6 rows of 9 baseballs. How many baseballs in all?

Answer: → Y

Equipment manager found 7 baseballs yesterday and 82 more today. How many baseballs in all?

Answer: → A

Equipment manager lined up 4 rows of 8 leather gloves. How many leather gloves in all?

Answer: → L

There were 139 leather gloves. 21 were used up. How many leather gloves are left?

Answer: → U

Scratch space:

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

Finally, you divide the leftover game balls evenly among the bullpen buckets to reveal the final lead.

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:

$33 \div 11 = \boxed{}$

$20 \div 5 = \boxed{}$

$11 \div 1 = \boxed{}$

$108 \div 12 = \boxed{}$

$1 \div 1 = \boxed{}$

$36 \div 3 = \boxed{}$

$25 \div 5 = \boxed{}$

$6 \div 3 = \boxed{}$

$36 \div 6 = \boxed{}$

$20 \div 2 = \boxed{}$

$70 \div 10 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain floated a changeup, then buckled catcher shin guards.
2. The villain floated a changeup, then applied sticky pine tar.
3. The villain floated a changeup, then wrapped heavy grip tape.
4. The villain snapped a curveball, then strapped on an elbow guard.
5. The villain drifted a knuckleball, then buckled catcher shin guards.
6. The villain snapped a curveball, then applied sticky pine tar.
7. The villain drifted a knuckleball, then strapped on an elbow guard.
8. The villain hurled a fast drive, then buckled catcher shin guards.
9. The villain swept a sharp slider, then buckled catcher shin guards.
10. The villain swept a sharp slider, then wrapped heavy grip tape.
11. The villain snapped a curveball, then wrapped heavy grip tape.
12. The villain floated a changeup, then strapped on an elbow guard.

Answer Key

The Grand Slam Mystery

Culprit: Mike Trout

Fastball Drive · Catcher Shin Guards · Left-handed Thrower · Curly Afro · Infield Dust

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

Clue 1 (Addition): "THE SUSPECT DOES NOT USE PINE TAR"

$3639 + 1837 = 5476$ (T) · $4965 + 2173 = 7138$ (U) · $4103 + 2879 = 6982$ (A) · $4984 + 2792 = 7776$ (E) · $1269 + 2948 = 4217$ (D) · $1709 + 1608 = 3317$ (H) · $2804 + 2022 = 4826$ (O) · $1460 + 2962 = 4422$ (C) · $1129 + 1120 = 2249$ (R) · $4363 + 4698 = 9061$ (S) · $2238 + 5083 = 7321$ (I) · $2715 + 4798 = 7513$ (P) · $2072 + 2169 = 4241$ (N)

Clue 2 (Multiplication facts (1-12)): "A LEFTY THROWING MARK WAS FOUND ON BASE"

$12 \times 8 = 96$ (A) · $2 \times 2 = 4$ (H) · $12 \times 10 = 120$ (U) · $7 \times 6 = 42$ (E) · $5 \times 3 = 15$ (T) · $9 \times 1 = 9$ (S) · $3 \times 6 = 18$ (O) · $9 \times 9 = 81$ (Y) · $1 \times 11 = 11$ (G) · $4 \times 5 = 20$ (M) · $10 \times 9 = 90$ (I) · $6 \times 12 = 72$ (R) · $9 \times 5 = 45$ (F) · $1 \times 2 = 2$ (K) · $11 \times 2 = 22$ (L) · $8 \times 2 = 16$ (N) · $9 \times 12 = 108$ (D) · $1 \times 1 = 1$ (B) · $3 \times 9 = 27$ (W)

Clue 3 (Rounding): "THE VILLAINS EYES WATERED IN INFIELD DUST"

Round 9,430 to the nearest thousand = 9000 (T) · Round 173 to the nearest hundred = 200 (Y) · Round 5,342 to the nearest thousand = 5000 (V) · Round 20 to the nearest ten = 20 (D) · Round 1,651 to the nearest hundred = 1700 (S) · Round 2,128 to the nearest thousand = 2000 (L) · Round 54 to the nearest ten = 50 (I) · Round 1,333 to the nearest hundred = 1300 (F) · Round 173 to the nearest ten = 170 (E) · Round 3,743 to the nearest hundred = 3700 (H) · Round 723 to the nearest hundred = 700 (N) · Round 287 to the nearest ten = 290 (R) · Round 26 to the nearest ten = 30 (A) · Round 856 to the nearest hundred = 900 (U) · Round 2,869 to the nearest hundred = 2900 (W)

Clue 4 (Word problems): "CURLY AFRO"

There were 62 batting helmets. 17 were used up. How many batting helmets are left? = 45 (C) · Equipment manager found 3 baseballs yesterday and 101 more today. How many baseballs in all? = 104 (F) · Equipment manager lined up 9 rows of 11 baseballs. How many baseballs in all? = 99 (R) · Equipment manager lined up 6 rows of 9 baseballs. How many baseballs in all? = 54 (Y) · Equipment manager found 7 baseballs yesterday and 82 more today. How many baseballs in all? = 89 (A) · Equipment manager lined up 4 rows of 8 leather gloves. How many leather gloves in all? = 32 (L) · There were 139 leather gloves. 21 were used up. How many leather gloves are left? = 118 (U)

Clue 5 (Division facts (1-12)): surviving statement is box 8 → Mike Trout

$33 \div 11 = 3$ · $20 \div 5 = 4$ · $11 \div 1 = 11$ · $108 \div 12 = 9$ · $1 \div 1 = 1$ · $36 \div 3 = 12$ · $25 \div 5 = 5$ · $6 \div 3 = 2$ · $36 \div 6 = 6$ · $20 \div 2 = 10$ · $70 \div 10 = 7$