



# The Case of the Grand Slam Phantom

Grade 5 math · Place value, Addition, Subtraction, Multiplication, Division · Reading level grades 5-6

**Detective:** \_\_\_\_\_ **Date:** \_\_\_\_\_

During the championship series at Grand Slam Stadium, someone swapped the official game ball with a heavy brass replica and fled into the dugouts! The head groundskeeper needs your detective skills to decode clues, analyze suspects, and catch the thief before tonight's big game.

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 stadium phantom is** \_\_\_\_\_

## Possible suspects

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

| NAME             | SIGNATURE PLAY | SECRET TACTIC  | THROWING HAND | HAIRSTYLE     | MAJOR WEAKNESS |
|------------------|----------------|----------------|---------------|---------------|----------------|
| Pedro Martinez   | monster slug   | bat corking    | right handed  | curly afro    | slippery gum   |
| Sandy Koufax     | knuckleball    | cleat spiking  | right handed  | buzz cut      | loud airhorns  |
| Cal Ripken       | sneaky bunt    | pine tar stick | left handed   | curly afro    | loud airhorns  |
| Clayton Kershaw  | fastball pitch | sign stealing  | left handed   | buzz cut      | loud airhorns  |
| Lou Gehrig       | fastball pitch | cleat spiking  | right handed  | curly afro    | slippery gum   |
| Jackie Robinson  | sneaky bunt    | pine tar stick | right handed  | curly afro    | wet grass      |
| Aaron Judge      | monster slug   | bat corking    | right handed  | buzz cut      | loud airhorns  |
| Honus Wagner     | knuckleball    | bat corking    | left handed   | long ponytail | loud airhorns  |
| Cy Young         | fastball pitch | bat corking    | left handed   | long ponytail | loud airhorns  |
| Hank Aaron       | golden glove   | cleat spiking  | left handed   | long ponytail | slippery gum   |
| Ty Cobb          | golden glove   | pine tar stick | right handed  | curly afro    | wet grass      |
| Babe Ruth        | sneaky bunt    | bat corking    | right handed  | long ponytail | loud airhorns  |
| Albert Pujols    | sneaky bunt    | pine tar stick | right handed  | buzz cut      | slippery gum   |
| Willie Mays      | monster slug   | rosin dusting  | left handed   | buzz cut      | wet grass      |
| Ichiro Suzuki    | fastball pitch | pine tar stick | right handed  | long ponytail | slippery gum   |
| Ted Williams     | knuckleball    | cleat spiking  | left handed   | curly afro    | slippery gum   |
| Mike Trout       | golden glove   | bat corking    | left handed   | long ponytail | loud airhorns  |
| Mookie Betts     | golden glove   | sign stealing  | right handed  | buzz cut      | wet grass      |
| Shohei Ohtani    | fastball pitch | cleat spiking  | left handed   | long ponytail | loud airhorns  |
| Roberto Clemente | golden glove   | pine tar stick | left handed   | long ponytail | slippery gum   |
| Ken Griffey      | knuckleball    | rosin dusting  | left handed   | long ponytail | loud airhorns  |

### CLUE 1

You inspect the stadium digital scoreboard where digits in the hundred thousands column reveal a hidden cipher.

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

20 1000 2000 6000 500 700 700 600 500 10 70 100 2000 900 10 100 20

7000 900 2000 9000 100 900 500 10 70 7000 900 20 500 10 5000

What is the value of the 2 in 906,327?  → **T**

What is the value of the 7 in 28,579?  → **D**

What is the value of the 7 in 914,708?  → **L**

What is the value of the 1 in 31,567?  → **H**

What is the value of the 5 in 85,282?  → **G**

What is the value of the 7 in 997,460?  → **U**

What is the value of the 5 in 77,537?  →

What is the value of the 6 in 405,649?  → **A**

What is the value of the 1 in 493,182?  → ☐

What is the value of the 9 in 576,926?  → **S**

What is the value of the 6 in 76,399?  → **V**

What is the value of the 9 in 49,334?  → **R**

What is the value of the 2 in 72,595?  → **E**

What is the value of the 1 in 73,919?  → **N**

Scratch space:

## CLUE 2 Addition

Next you sum up the stray baseballs collected from the outfield bullpen to find the next clue fragment.

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

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |   |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---|
| T    |      |      |      |      | T    |      |      |      |      |      |      |      |      |      |      |      |      | T |
| 3766 | 3117 | 5250 | 5718 | 6569 | 3766 | 7738 | 5250 | 5935 | 5935 | 5935 | 5721 | 5718 | 5721 | 6174 | 5250 | 6201 | 3766 |   |

  

|      |      |      |      |      |      |      |      |      |      |      |      |      |  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
|      |      |      |      |      |      | T    |      |      |      |      |      |      |  |
| 3117 | 5721 | 7738 | 4922 | 5250 | 4922 | 3766 | 3117 | 2277 | 2998 | 5718 | 5250 | 2277 |  |

$1202 + 2564 = \boxed{\phantom{000}} \rightarrow \boxed{\text{T}}$

$1898 + 3823 = \boxed{\phantom{000}} \rightarrow \boxed{\text{A}}$

$5171 + 2567 = \boxed{\phantom{000}} \rightarrow \boxed{\text{N}}$

$3964 + 1754 = \boxed{\phantom{000}} \rightarrow \boxed{\text{W}}$

$1077 + 1200 = \boxed{\phantom{000}} \rightarrow \boxed{\text{R}}$

$1056 + 1942 = \boxed{\phantom{000}} \rightarrow \boxed{\text{O}}$

$3514 + 3055 = \boxed{\phantom{000}} \rightarrow \boxed{\text{I}}$

$2925 + 3249 = \boxed{\phantom{000}} \rightarrow \boxed{\text{L}}$

$1748 + 3174 = \boxed{\phantom{000}} \rightarrow \boxed{\text{D}}$

$1037 + 2080 = \boxed{\phantom{000}} \rightarrow \boxed{\text{H}}$

$3805 + 2396 = \boxed{\phantom{000}} \rightarrow \boxed{\text{F}}$

$3834 + 2101 = \boxed{\phantom{000}} \rightarrow \boxed{\text{S}}$

$3138 + 2112 = \boxed{\phantom{000}} \rightarrow \boxed{\text{E}}$

Scratch space:

## CLUE 3

## Subtraction

You compare the original ticket count with the current gate total to subtract the discrepancy and crack the code.

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

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| T    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 1680 | 3651 | 5179 | 5114 | 6964 | 6501 | 6501 | 6807 | 6964 | 5946 | 1489 | 2392 | 7170 | 6964 | 6501 | 8144 | 6807 | 1489 |

  

|      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|
|      |      |      |      |      |      |      |      |      |      |      |      |
| 6501 | 7170 | 8315 | 4696 | 6807 | 6964 | 6144 | 3651 | 7170 | 6144 | 5946 | 1489 |

$4984 - 3304 = \square \rightarrow \boxed{\text{T}}$

$7051 - 4659 = \square \rightarrow \boxed{\text{F}}$

$9830 - 1686 = \square \rightarrow \boxed{\text{W}}$

$7635 - 671 = \square \rightarrow \boxed{\text{I}}$

$9803 - 4689 = \square \rightarrow \boxed{\text{V}}$

$10199 - 4253 = \square \rightarrow \boxed{\text{N}}$

$7457 - 650 = \square \rightarrow \boxed{\text{A}}$

$6802 - 658 = \square \rightarrow \boxed{\text{R}}$

$3687 - 36 = \square \rightarrow \boxed{\text{H}}$

$5860 - 681 = \square \rightarrow \boxed{\text{E}}$

$5694 - 4205 = \square \rightarrow \boxed{\text{S}}$

$6043 - 1347 = \square \rightarrow \boxed{\text{D}}$

$7938 - 1437 = \square \rightarrow \boxed{\text{L}}$

$12027 - 4857 = \square \rightarrow \boxed{\text{O}}$

$8695 - 380 = \square \rightarrow \boxed{\text{U}}$

Scratch space:

### CLUE 4

56 4 21 88 15 90 21 88 9 60 56 8 4 12 60 121 56 88 45

28 56 12 21 88 45 80 15 21 80 60

$8 \times 7 = \square \rightarrow \boxed{\text{A}}$

$$11 \times 11 = \boxed{\phantom{000}} \rightarrow \boxed{\mathbf{R}}$$

$1 \times 9 = \square \rightarrow \boxed{\text{Y}}$

$12 \times 1 = \boxed{\phantom{000}} \rightarrow \boxed{\text{S}}$

$11 \times 8 = \boxed{\phantom{00}} \rightarrow \boxed{\text{N}}$

$7 \times 3 = \square \rightarrow \boxed{0}$

$8 \times 10 = \boxed{\phantom{00}} \rightarrow \boxed{\text{U}}$

$5 \times 12 = \boxed{\phantom{00}} \rightarrow \boxed{\text{T}}$

$9 \times 5 = \square \rightarrow \boxed{\text{D}}$

$9 \times 10 = \boxed{\phantom{00}} \rightarrow \boxed{\text{P}}$

$4 \times 7 = \boxed{\phantom{00}} \rightarrow \boxed{\text{W}}$

$2 \times 4 = \square \rightarrow \boxed{\text{I}}$

$3 \times 5 = \square \rightarrow \boxed{\mathbf{G}}$

$1 \times 4 = \square \rightarrow \boxed{\text{L}}$

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

Finally you divide the total box seats equally among the stadium gates to unlock the terminal containing the final piece.

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:**

$24 \div 3 = \boxed{\phantom{00}}$

$22 \div 2 = \boxed{\phantom{00}}$

$18 \div 6 = \boxed{\phantom{00}}$

$30 \div 3 = \boxed{\phantom{00}}$

$55 \div 11 = \boxed{\phantom{00}}$

$16 \div 8 = \boxed{\phantom{00}}$

$7 \div 1 = \boxed{\phantom{00}}$

$48 \div 8 = \boxed{\phantom{00}}$

$3 \div 3 = \boxed{\phantom{00}}$

$84 \div 7 = \boxed{\phantom{00}}$

$72 \div 8 = \boxed{\phantom{00}}$

**Step 2 - cross out the sentence with each answer:**

1. The villain flashed a golden glove, then spiked the dirt with cleats.
2. The villain flashed a golden glove, then applied sticky pine tar.
3. The villain threw a blazing fastball, then swapped in a corked bat.
4. The villain threw a blazing fastball, then spiked the dirt with cleats.
5. The villain spun a tricky knuckleball, then applied sticky pine tar.
6. The villain blasted a monster slug, then stole the catcher signs.
7. The villain spun a tricky knuckleball, then dusted the mound with rosin.
8. The villain flashed a golden glove, then swapped in a corked bat.
9. The villain blasted a monster slug, then spiked the dirt with cleats.
10. The villain laid down a sneaky bunt, then stole the catcher signs.
11. The villain spun a tricky knuckleball, then swapped in a corked bat.
12. The villain laid down a sneaky bunt, then swapped in a corked bat.

# Answer Key

## The Case of the Grand Slam Phantom

### Culprit: Shohei Ohtani

fastball pitch · cleat spiking · left handed · long ponytail · loud airhorns

Trail: Start 21 → Clue 1 19 → Clue 2 9 → Clue 3 6 → Clue 4 4 → Clue 5 1

#### Clue 1 (Place value): "THE VILLAIN DOES NOT USE ROSIN DUSTING"

What is the value of the 2 in 906,327? = 20 (T) · What is the value of the 7 in 28,579? = 70 (D) · What is the value of the 7 in 914,708? = 700 (L) · What is the value of the 1 in 31,567? = 1000 (H) · What is the value of the 5 in 85,282? = 5000 (G) · What is the value of the 7 in 997,460? = 7000 (U) · What is the value of the 5 in 77,537? = 500 (I) · What is the value of the 6 in 405,649? = 600 (A) · What is the value of the 1 in 493,182? = 100 (O) · What is the value of the 9 in 576,926? = 900 (S) · What is the value of the 6 in 76,399? = 6000 (V) · What is the value of the 9 in 49,334? = 9000 (R) · What is the value of the 2 in 72,595? = 2000 (E) · What is the value of the 1 in 73,919? = 10 (N)

#### Clue 2 (Addition): "THE WITNESS SAW A LEFT HANDED THROWER"

1202 + 2564 = 3766 (T) · 1898 + 3823 = 5721 (A) · 5171 + 2567 = 7738 (N) · 3964 + 1754 = 5718 (W) · 1077 + 1200 = 2277 (R) · 1056 + 1942 = 2998 (O) · 3514 + 3055 = 6569 (I) · 2925 + 3249 = 6174 (L) · 1748 + 3174 = 4922 (D) · 1037 + 2080 = 3117 (H) · 3805 + 2396 = 6201 (F) · 3834 + 2101 = 5935 (S) · 3138 + 2112 = 5250 (E)

#### Clue 3 (Subtraction): "THE VILLAINS FOIL WAS LOUD AIRHORNS"

4984 - 3304 = 1680 (T) · 7051 - 4659 = 2392 (F) · 9830 - 1686 = 8144 (W) · 7635 - 671 = 6964 (I) · 9803 - 4689 = 5114 (V) · 10199 - 4253 = 5946 (N) · 7457 - 650 = 6807 (A) · 6802 - 658 = 6144 (R) · 3687 - 36 = 3651 (H) · 5860 - 681 = 5179 (E) · 5694 - 4205 = 1489 (S) · 6043 - 1347 = 4696 (D) · 7938 - 1437 = 6501 (L) · 12027 - 4857 = 7170 (O) · 8695 - 380 = 8315 (U)

#### Clue 4 (Multiplication facts (1-12)): "A LONG PONYTAIL STRAND WAS ON DUGOUT"

8 × 7 = 56 (A) · 11 × 11 = 121 (R) · 1 × 9 = 9 (Y) · 12 × 1 = 12 (S) · 11 × 8 = 88 (N) · 7 × 3 = 21 (O) · 8 × 10 = 80 (U) · 5 × 12 = 60 (T) · 9 × 5 = 45 (D) · 9 × 10 = 90 (P) · 4 × 7 = 28 (W) · 2 × 4 = 8 (I) · 3 × 5 = 15 (G) · 1 × 4 = 4 (L)

#### Clue 5 (Division facts (1-12)): surviving statement is box 4 → Shohei Ohtani

24 ÷ 3 = 8 · 22 ÷ 2 = 11 · 18 ÷ 6 = 3 · 30 ÷ 3 = 10 · 55 ÷ 11 = 5 · 16 ÷ 8 = 2 · 7 ÷ 1 = 7 · 48 ÷ 8 = 6 · 3 ÷ 3 = 1 · 84 ÷ 7 = 12 · 72 ÷ 8 = 9