



The Case of the Missing Championship Bat

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

Detective: _____ **Date:** _____

Before the big championship game at Grand Diamond Stadium, someone broke into the equipment vault and stole the legendary gold-plated bat! The detective team must analyze clues left around the ballpark to identify the thief before first pitch.

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 Thief is _____

Possible suspects

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

NAME	BATTING STYLE	FAVORITE PITCH	BATTING GLOVE	CAP STYLE	DISTRACTION
Pedro Martinez	Switch Hitter	Knuckleball	Left Handed	Backward Cap	Loud Whistle
Sammy Sosa	Power Hitter	Fastball	Left Handed	Backward Cap	Flash Photography
Lou Gehrig	Power Hitter	Fastball	Right Handed	Forward Cap	Screaming Fans
Barry Bonds	Slap Hitter	Curveball	Right Handed	Visor	Screaming Fans
Willie Mays	Bunter	Fastball	Right Handed	Forward Cap	Flash Photography
Stan Musial	Power Hitter	Curveball	Right Handed	Backward Cap	Screaming Fans
Jackie Robinson	Power Hitter	Changeup	Right Handed	Backward Cap	Screaming Fans
Mike Trout	Contact Hitter	Knuckleball	Right Handed	Forward Cap	Screaming Fans
Cy Young	Bunter	Fastball	Right Handed	Backward Cap	Loud Whistle
Hank Aaron	Slap Hitter	Curveball	Left Handed	Forward Cap	Screaming Fans
Nolan Ryan	Contact Hitter	Fastball	Left Handed	Visor	Loud Whistle
Cal Ripken Jr	Power Hitter	Knuckleball	Right Handed	Forward Cap	Flash Photography
Mookie Betts	Contact Hitter	Changeup	Left Handed	Visor	Screaming Fans
Ted Williams	Slap Hitter	Slider	Right Handed	Forward Cap	Screaming Fans
Shohei Ohtani	Slap Hitter	Changeup	Right Handed	Forward Cap	Screaming Fans
Ichiro Suzuki	Slap Hitter	Curveball	Left Handed	Visor	Screaming Fans
Ty Cobb	Bunter	Slider	Right Handed	Visor	Loud Whistle
Randy Johnson	Bunter	Curveball	Right Handed	Backward Cap	Flash Photography
Honus Wagner	Power Hitter	Changeup	Right Handed	Forward Cap	Screaming Fans
Greg Maddux	Power Hitter	Changeup	Left Handed	Backward Cap	Loud Whistle
Roberto Clemente	Bunter	Curveball	Right Handed	Visor	Loud Whistle

CLUE 1 Addition

The stadium security team tallied the total number of missing baseballs across both dugouts to unlock the first vault log.

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

T																			
8570	3916	2439	5627	3573	5627	2109	2439	5900	8570	4086	9295	2439	5627	2672	9295	8570			
4749	5185	8853	9295	9493	8570	3916	2439	5627	7471	8075	4086	2439	9493						

$4524 + 4046 = \square \rightarrow \text{[T]}$

$757 + 1352 = \square \rightarrow \text{[P]}$

$2093 + 3534 = \square \rightarrow \text{[S]}$

$2963 + 1786 = \square \rightarrow \text{[F]}$

$4824 + 2647 = \square \rightarrow \text{[L]}$

$5234 + 4061 = \square \rightarrow \text{[O]}$

$1114 + 1325 = \square \rightarrow \text{[E]}$

$1416 + 2157 = \square \rightarrow \text{[U]}$

$2424 + 2761 = \square \rightarrow \text{[A]}$

$1333 + 1339 = \square \rightarrow \text{[N]}$

$3764 + 4311 = \square \rightarrow \text{[I]}$

$6222 + 3271 = \square \rightarrow \text{[R]}$

$2706 + 1210 = \square \rightarrow \text{[H]}$

$1952 + 2134 = \square \rightarrow \text{[D]}$

$4126 + 1774 = \square \rightarrow \text{[C]}$

$3071 + 5782 = \square \rightarrow \text{[V]}$

Scratch space:

CLUE 2
Multiplication facts (1-12)

The equipment manager multiplied the rows of bat racks by the items per rack to calculate the inventory code.

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

W											W						
9	55	60	14	24	81	81	24	81	81	15	9	15	3	55	2	108	60
108	15	14	64	24	64	22	15	60	60	24	3	144	35	24	24		

$9 \times 1 = \square \rightarrow \text{W}$

$12 \times 9 = \square \rightarrow \text{H}$

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

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

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

$5 \times 12 = \square \rightarrow \text{T}$

$7 \times 2 = \square \rightarrow \text{N}$

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

$11 \times 5 = \square \rightarrow \text{I}$

$12 \times 12 = \square \rightarrow \text{F}$

$2 \times 12 = \square \rightarrow \text{E}$

$1 \times 2 = \square \rightarrow \text{G}$

$9 \times 9 = \square \rightarrow \text{S}$

$8 \times 8 = \square \rightarrow \text{D}$

Scratch space:

CLUE 3 Rounding

The radar gun display on the stadium scoreboard only displays pitch speed rounded to the nearest ten miles per hour.

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

S													S
1700	700	9000	130	30	1300	50	2300	230	110	30	2300	1700	

					S												
700	5000	2300	110	900	1700	130	2900	430	1100	130	9000	900	2300	2300	50	2300	230

430	1100	50	130	110

Round 1,673 to the nearest hundred → **S**

Round 2,913 to the nearest hundred → **D**

Round 131 to the nearest ten → **E**

Round 108 to the nearest ten → **F**

Round 34 to the nearest ten → **A**

Round 739 to the nearest hundred → **C**

Round 54 to the nearest ten → **I**

Round 1,116 to the nearest hundred → **H**

Round 1,325 to the nearest hundred → **M**

Round 233 to the nearest ten → **G**

Round 427 to the nearest ten → **T**

Round 9,118 to the nearest thousand → **R**

Round 868 to the nearest hundred → **U**

Round 2,334 to the nearest hundred → **N**

Round 5,161 to the nearest thousand → **O**

Scratch space:

CLUE 4

Word problems

The head groundskeeper sorted out the stats from yesterday practice sheet to clear up conflicting player reports.

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

A strand of F P hair turned up at the scene.

73 82 101 106 61 101 104 15 61

Stadium umpire found 28 helmets yesterday and 45 more today. How many helmets in all?

Answer: → F

Stadium umpire found 96 caps yesterday and 5 more today. How many caps in all?

Answer: → R

Stadium umpire found 6 pennants yesterday and 76 more today. How many pennants in all?

Answer: → O

Stadium umpire lined up 5 rows of 3 pennants. How many pennants in all?

Answer: → C

There were 144 cleats. 40 were used up. How many cleats are left?

Answer: → D

There were 117 baseballs. 11 were used up. How many baseballs are left?

Answer: → W

Stadium umpire found 56 caps yesterday and 5 more today. How many caps in all?

Answer: → A

Scratch space:

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

The coaching staff divided the remaining bucket of practice balls equally among the warm-up stations to reveal the 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:

$30 \div 10 = \square$

$9 \div 1 = \square$

$32 \div 4 = \square$

$72 \div 12 = \square$

$14 \div 7 = \square$

$8 \div 8 = \square$

$90 \div 9 = \square$

$120 \div 10 = \square$

$121 \div 11 = \square$

$77 \div 11 = \square$

$44 \div 11 = \square$

Step 2 - cross out the sentence with each answer:

1. The villain lay down a surprise bunt, then cranked a fast fastball.
2. The villain slapped a hit down the line, then cranked a fast fastball.
3. The villain slapped a hit down the line, then floated a slow changeup.
4. The villain switched batter boxes, then hooked a sharp curveball.
5. The villain singled to shallow outfield, then danced a tricky knuckleball.
6. The villain switched batter boxes, then cranked a fast fastball.
7. The villain singled to shallow outfield, then floated a slow changeup.
8. The villain swung for the fences, then cranked a fast fastball.
9. The villain swung for the fences, then floated a slow changeup.
10. The villain singled to shallow outfield, then hooked a sharp curveball.
11. The villain switched batter boxes, then snapped a breaking slider.
12. The villain lay down a surprise bunt, then hooked a sharp curveball.

Answer Key

The Case of the Missing Championship Bat

Culprit: Mike Trout

Contact Hitter · Knuckleball · Right Handed · Forward Cap · Screaming Fans

Trail: Start 21 → Clue 1 19 → Clue 2 12 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE SUSPECT DOES NOT FAVOR THE SLIDER"

$4524 + 4046 = 8570$ (T) · $757 + 1352 = 2109$ (P) · $2093 + 3534 = 5627$ (S) · $2963 + 1786 = 4749$ (F) · $4824 + 2647 = 7471$ (L) · $5234 + 4061 = 9295$ (O) · $1114 + 1325 = 2439$ (E) · $1416 + 2157 = 3573$ (U) · $2424 + 2761 = 5185$ (A) · $1333 + 1339 = 2672$ (N) · $3764 + 4311 = 8075$ (I) · $6222 + 3271 = 9493$ (R) · $2706 + 1210 = 3916$ (H) · $1952 + 2134 = 4086$ (D) · $4126 + 1774 = 5900$ (C) · $3071 + 5782 = 8853$ (V)

Clue 2 (Multiplication facts (1-12)): "WITNESSES SAW A RIGHT HANDED BATTER FLEE"

$9 \times 1 = 9$ (W) · $12 \times 9 = 108$ (H) · $3 \times 1 = 3$ (R) · $2 \times 11 = 22$ (B) · $5 \times 7 = 35$ (L) · $5 \times 12 = 60$ (T) · $7 \times 2 = 14$ (N) · $3 \times 5 = 15$ (A) · $11 \times 5 = 55$ (I) · $12 \times 12 = 144$ (F) · $2 \times 12 = 24$ (E) · $1 \times 2 = 2$ (G) · $9 \times 9 = 81$ (S) · $8 \times 8 = 64$ (D)

Clue 3 (Rounding): "SCREAMING FANS CONFUSED THE RUNNING THIEF"

Round 1,673 to the nearest hundred = 1700 (S) · Round 2,913 to the nearest hundred = 2900 (D) · Round 131 to the nearest ten = 130 (E) · Round 108 to the nearest ten = 110 (F) · Round 34 to the nearest ten = 30 (A) · Round 739 to the nearest hundred = 700 (C) · Round 54 to the nearest ten = 50 (I) · Round 1,116 to the nearest hundred = 1100 (H) · Round 1,325 to the nearest hundred = 1300 (M) · Round 233 to the nearest ten = 230 (G) · Round 427 to the nearest ten = 430 (T) · Round 9,118 to the nearest thousand = 9000 (R) · Round 868 to the nearest hundred = 900 (U) · Round 2,334 to the nearest hundred = 2300 (N) · Round 5,161 to the nearest thousand = 5000 (O)

Clue 4 (Word problems): "FORWARD CAP"

Stadium umpire found 28 helmets yesterday and 45 more today. How many helmets in all? = 73 (F) · Stadium umpire found 96 caps yesterday and 5 more today. How many caps in all? = 101 (R) · Stadium umpire found 6 pennants yesterday and 76 more today. How many pennants in all? = 82 (O) · Stadium umpire lined up 5 rows of 3 pennants. How many pennants in all? = 15 (C) · There were 144 cleats. 40 were used up. How many cleats are left? = 104 (D) · There were 117 baseballs. 11 were used up. How many baseballs are left? = 106 (W) · Stadium umpire found 56 caps yesterday and 5 more today. How many caps in all? = 61 (A)

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

$30 \div 10 = 3$ · $9 \div 1 = 9$ · $32 \div 4 = 8$ · $72 \div 12 = 6$ · $14 \div 7 = 2$ · $8 \div 8 = 1$ · $90 \div 9 = 10$ · $120 \div 10 = 12$ · $121 \div 11 = 11$ · $77 \div 11 = 7$ · $44 \div 11 = 4$