



The Wrigley Field Ivy Mystery

Grade 5 math · Fractions of a number, Order of operations, Multiplication, Rounding, Division · Reading level grades 5-6

Detective: _____ Date: _____

The legendary Lucky Ivy Bat has been swiped from the Wrigley Field clubhouse right before the big game! The head groundskeeper needs your junior detective skills to search the stadium, crack the codes, and find out which staff member or player took it.

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 thief is _____

Possible suspects

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

NAME	PITCH STYLE	LUCKY GEAR	THROWING ARM	CAP STYLE	SNACK WEAKNESS
Ernie Banks	Slider	Shiny Cleats	Right Handed	Curved Brim	Garlic Fries
Kerry Wood	Slider	Wrist Bands	Left Handed	Curved Brim	Chicago Dogs
Cody Bellinger	Fastball	Striped Socks	Left Handed	Flat Brim	Soft Pretzels
Anthony Rizzo	Fastball	Shiny Cleats	Right Handed	Flat Brim	Garlic Fries
Dansby Swanson	Curveball	Striped Socks	Right Handed	Flat Brim	Soft Pretzels
Trainer Cap	Knuckleball	Wrist Bands	Right Handed	Flat Brim	Soft Pretzels
Ron Santo	Fastball	Wrist Bands	Left Handed	Flat Brim	Soft Pretzels
Usher Pat	Changeup	Striped Socks	Left Handed	Curved Brim	Garlic Fries
Kyle Hendricks	Fastball	Blue Helmet	Right Handed	Flat Brim	Soft Pretzels
Saddled Sam	Curveball	Striped Socks	Left Handed	Flat Brim	Chicago Dogs
Ryne Sandberg	Slider	Shiny Cleats	Left Handed	Flat Brim	Soft Pretzels
Billy Williams	Curveball	Shiny Cleats	Right Handed	Flat Brim	Soft Pretzels
Organist Gary	Curveball	Wrist Bands	Right Handed	Curved Brim	Garlic Fries
Justin Steele	Slider	Blue Helmet	Right Handed	Curved Brim	Soft Pretzels
Javy Baez	Fastball	Red Glove	Right Handed	Flat Brim	Garlic Fries
Scout Lou	Curveball	Blue Helmet	Right Handed	Flat Brim	Chicago Dogs
Vendor Harry	Knuckleball	Shiny Cleats	Right Handed	Flat Brim	Soft Pretzels
Seiya Suzuki	Fastball	Red Glove	Right Handed	Curved Brim	Chicago Dogs
Sammy Sosa	Fastball	Blue Helmet	Left Handed	Flat Brim	Garlic Fries
Nico Hoerner	Knuckleball	Shiny Cleats	Left Handed	Backwards Cap	Soft Pretzels
Coach Clark	Fastball	Shiny Cleats	Right Handed	Curved Brim	Soft Pretzels

CLUE 1

Fractions of a number

The bullpen coach says only a fraction of the baseballs in the bin have clean fingerprints. Let us calculate the exact portion to narrow down our suspect list.

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

T																	T
15	36	3	11	18	28	28	34	18	20	6	35	3	13	20	35	15	
						T											
39	3	34	33	13	15	33	18	10	3	6	13	35	8	21	13		

$5/8 \text{ of } 24 = \square \rightarrow \boxed{\text{T}}$

$1/3 \text{ of } 117 = \square \rightarrow \boxed{\text{W}}$

$1/8 \text{ of } 144 = \square \rightarrow \boxed{\text{I}}$

$4/8 \text{ of } 68 = \square \rightarrow \boxed{\text{A}}$

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

$2/8 \text{ of } 112 = \square \rightarrow \boxed{\text{L}}$

$2/8 \text{ of } 32 = \square \rightarrow \boxed{\text{C}}$

$5/8 \text{ of } 32 = \square \rightarrow \boxed{\text{N}}$

$4/8 \text{ of } 22 = \square \rightarrow \boxed{\text{V}}$

$1/4 \text{ of } 52 = \square \rightarrow \boxed{\text{S}}$

$4/8 \text{ of } 42 = \square \rightarrow \boxed{\text{K}}$

$5/6 \text{ of } 12 = \square \rightarrow \boxed{\text{P}}$

$3/6 \text{ of } 12 = \square \rightarrow \boxed{\text{D}}$

$2/6 \text{ of } 108 = \square \rightarrow \boxed{\text{H}}$

$6/10 \text{ of } 55 = \square \rightarrow \boxed{\text{R}}$

$2/8 \text{ of } 140 = \square \rightarrow \boxed{\text{O}}$

Scratch space:

Order of operations

The scoreboard crew found a strange math code locked in the giant green scoreboard. Solve it in the correct order of operations to view the locker room camera feeds.

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

22 14 21 37 36 37 69 21 61 22 22 14 57 59 6 37 22 14 21

31 9 37 21 31 9 26 26 57 64 53 14 22 14 9 52 72 21 72

$$12 + 2 \times 5 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$5 \times 10^{-14} = \boxed{} \rightarrow \boxed{\text{U}}$$

$$54 + 5 \times 2 = \boxed{} \rightarrow \boxed{} \mid$$

$$9 \times 9 - 29 = \boxed{} \rightarrow \boxed{\mathbf{N}}$$

$$2 + 2 \times 2 = \boxed{} \rightarrow \boxed{\mathbf{W}}$$

$$4 + 5 \times 2 = \boxed{} \rightarrow \boxed{\text{H}}$$

$36 + 4 \times 9 = \boxed{} \rightarrow \mathbf{D}$

$7 + 8 \times 3 = \boxed{} \rightarrow \mathbf{B}$

$$8 \times 3 - 15 = \boxed{} \rightarrow \mathbf{A}$$

$$39 + 9 \times 2 = \boxed{} \rightarrow \boxed{\text{R}}$$

$$5 + 4 \times 4 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$7 \times 7 - 12 = \boxed{} \rightarrow \boxed{\mathbf{S}}$$

$$51 + 2 \times 5 = \boxed{} \rightarrow \boxed{\text{C}}$$

$$53 + 3 \times 2 = \boxed{} \rightarrow \boxed{0}$$

$$39 + 5 \times 6 = \boxed{} \rightarrow \boxed{\text{P}}$$

$$21 + 8 \times 4 = \boxed{} \rightarrow \mathbf{G}$$

$$10 + 8 \times 2 = \boxed{} \rightarrow \boxed{\text{L}}$$

Scratch space:

CLUE 3

Multiplication facts (1-12)

A concession worker counted stacks of souvenir boxes lined up in equal rows. Multiplying these rows will point us toward where the thief ran.

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

W														
27	44	48	1	21	9	50	63	24	4	56	48	11	1	96
63	1	48	56	121	11	44	56	80	44	4	9	44	24	11
64	24	56												

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

$3 \times 3 = \square \rightarrow \text{N}$

$11 \times 1 = \square \rightarrow \text{R}$

$10 \times 8 = \square \rightarrow \text{Z}$

$8 \times 6 = \square \rightarrow \text{F}$

$11 \times 11 = \square \rightarrow \text{P}$

$10 \times 5 = \square \rightarrow \text{D}$

$12 \times 8 = \square \rightarrow \text{M}$

$1 \times 1 = \square \rightarrow \text{O}$

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

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

$7 \times 3 = \square \rightarrow \text{U}$

$9 \times 7 = \square \rightarrow \text{S}$

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

$7 \times 8 = \square \rightarrow \text{T}$

$2 \times 3 = \square \rightarrow \text{H}$

$4 \times 11 = \square \rightarrow \text{E}$

Scratch space:

CLUE 4

The speed radar gun clocked a suspicious figure fleeing down the hallway, but the display only shows speed rounded to the nearest ten. Round this number to find the clue.

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 boxes. The boxes are arranged in two rows. The top row contains 18 boxes, and the bottom row contains 7 boxes. The numbers below the boxes are: 3000, 170, 3700, 30, 110, 30, 7000, 3700, 1100, 3000, 2900, 900, 4300, 3700, 230, 430, 20, 230, 3000, 2000, 4300, 370, 5000, 1100, 230, 7000. The boxes containing the numbers 3000, 3000, and 3000 are shaded orange and labeled 'T'.

Round 3,321 to the nearest thousand $\rightarrow$ **T**

Round 3,669 to the nearest hundred $\rightarrow$ **E**

Round 230 to the nearest ten → **A**

Round 31 to the nearest ten $\rightarrow$ **S**

Round 1,144 to the nearest hundred → **C**

Round 366 to the nearest ten $\rightarrow$

Round 110 to the nearest ten $\rightarrow$ **U**

Round 7,434 to the nearest thousand → **P**

Round 870 to the nearest hundred $\rightarrow$

Round 2,417 to the nearest thousand → **B**

Round 429 to the nearest ten $\rightarrow$ **F**

Round 2,894 to the nearest hundred $\rightarrow$ **W**

Round 4,335 to the nearest hundred → **R**

Round 5,244 to the nearest thousand $\rightarrow$ **M**

Round 171 to the nearest ten → **H**

Round 23 to the nearest ten → **L**

Scratch space:

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

The groundskeepers are dividing a big sack of sunflower seeds equally among the outfield crew so everyone stays awake to guard the ivy.

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:

$108 \div 9 = \boxed{}$

$72 \div 8 = \boxed{}$

$6 \div 1 = \boxed{}$

$48 \div 6 = \boxed{}$

$35 \div 5 = \boxed{}$

$7 \div 7 = \boxed{}$

$45 \div 9 = \boxed{}$

$24 \div 8 = \boxed{}$

$22 \div 11 = \boxed{}$

$16 \div 4 = \boxed{}$

$90 \div 9 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain slowed down the chase with a changeup throw, then wiped the evidence with wrist bands.
2. The villain slowed down the chase with a changeup throw, then snatched the bat using a blue helmet.
3. The villain slowed down the chase with a changeup throw, then ran across the dirt with shiny cleats.
4. The villain slipped past the gate with a tricky slider, then dashed away wearing striped socks.
5. The villain fooled the security guard with a curveball, then wiped the evidence with wrist bands.
6. The villain threw a wild fastball to distract everyone, then snatched the bat using a blue helmet.
7. The villain threw a wild fastball to distract everyone, then dashed away wearing striped socks.
8. The villain danced past the cameras like a knuckleball, then grabbed the prize with a red glove.
9. The villain danced past the cameras like a knuckleball, then wiped the evidence with wrist bands.
10. The villain slipped past the gate with a tricky slider, then grabbed the prize with a red glove.
11. The villain fooled the security guard with a curveball, then ran across the dirt with shiny cleats.
12. The villain danced past the cameras like a knuckleball, then ran across the dirt with shiny cleats.

Answer Key

The Wrigley Field Ivy Mystery

Culprit: Billy Williams

Curveball · Shiny Cleats · Right Handed · Flat Brim · Soft Pretzels

Trail: Start 21 → Clue 1 17 → Clue 2 12 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Fractions of a number): "THE VILLAIN DOES NOT WEAR STRIPED SOCKS"

$5/8$ of 24 = 15 (T) · $1/3$ of 117 = 39 (W) · $1/8$ of 144 = 18 (I) · $4/8$ of 68 = 34 (A) · $1/3$ of 9 = 3 (E) · $2/8$ of 112 = 28 (L) · $2/8$ of 32 = 8 (C) · $5/8$ of 32 = 20 (N) · $4/8$ of 22 = 11 (V) · $1/4$ of 52 = 13 (S) · $4/8$ of 42 = 21 (K) · $5/6$ of 12 = 10 (P) · $3/6$ of 12 = 6 (D) · $2/6$ of 108 = 36 (H) · $6/10$ of 55 = 33 (R) · $2/8$ of 140 = 35 (O)

Clue 2 (Order of operations): "THE SUSPECT THROWS THE BASEBALL RIGHT HANDED"

$12 + 2 \times 5 = 22$ (T) · $5 \times 10 - 14 = 36$ (U) · $54 + 5 \times 2 = 64$ (I) · $9 \times 9 - 29 = 52$ (N) · $2 + 2 \times 2 = 6$ (W) · $4 + 5 \times 2 = 14$ (H) · $36 + 4 \times 9 = 72$ (D) · $7 + 8 \times 3 = 31$ (B) · $8 \times 3 - 15 = 9$ (A) · $39 + 9 \times 2 = 57$ (R) · $5 + 4 \times 4 = 21$ (E) · $7 \times 7 - 12 = 37$ (S) · $51 + 2 \times 5 = 61$ (C) · $53 + 3 \times 2 = 59$ (O) · $39 + 5 \times 6 = 69$ (P) · $21 + 8 \times 4 = 53$ (G) · $10 + 8 \times 2 = 26$ (L)

Clue 3 (Multiplication facts (1-12)): "WE FOUND SALT FROM A SOFT PRETZEL NEAR THE BAT"

$9 \times 3 = 27$ (W) · $3 \times 3 = 9$ (N) · $11 \times 1 = 11$ (R) · $10 \times 8 = 80$ (Z) · $8 \times 6 = 48$ (F) · $11 \times 11 = 121$ (P) · $10 \times 5 = 50$ (D) · $12 \times 8 = 96$ (M) · $1 \times 1 = 1$ (O) · $4 \times 1 = 4$ (L) · $8 \times 8 = 64$ (B) · $7 \times 3 = 21$ (U) · $9 \times 7 = 63$ (S) · $12 \times 2 = 24$ (A) · $7 \times 8 = 56$ (T) · $2 \times 3 = 6$ (H) · $4 \times 11 = 44$ (E)

Clue 4 (Rounding): "THE SUSPECT WORE A FLAT BRIM CAP"

Round 3,321 to the nearest thousand = 3000 (T) · Round 3,669 to the nearest hundred = 3700 (E) · Round 230 to the nearest ten = 230 (A) · Round 31 to the nearest ten = 30 (S) · Round 1,144 to the nearest hundred = 1100 (C) · Round 366 to the nearest ten = 370 (I) · Round 110 to the nearest ten = 110 (U) · Round 7,434 to the nearest thousand = 7000 (P) · Round 870 to the nearest hundred = 900 (O) · Round 2,417 to the nearest thousand = 2000 (B) · Round 429 to the nearest ten = 430 (F) · Round 2,894 to the nearest hundred = 2900 (W) · Round 4,335 to the nearest hundred = 4300 (R) · Round 5,244 to the nearest thousand = 5000 (M) · Round 171 to the nearest ten = 170 (H) · Round 23 to the nearest ten = 20 (L)

Clue 5 (Division facts (1-12)): surviving statement is box 11 → Billy Williams

$108 \div 9 = 12$ · $72 \div 8 = 9$ · $6 \div 1 = 6$ · $48 \div 6 = 8$ · $35 \div 5 = 7$ · $7 \div 7 = 1$ · $45 \div 9 = 5$ · $24 \div 8 = 3$ · $22 \div 11 = 2$ · $16 \div 4 = 4$ · $90 \div 9 = 10$