



The Missing Championship Trophy Mystery

Grade 10 math · Pythagorean theorem, Square roots, Exponents, Order of operations · Reading level grades 3-4

Detective: _____ Date: _____

Someone swiped the Golden Bat trophy right off home plate before the big championship game! Use your detective skills and baseball math to catch the 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 League Thief is _____

Possible suspects

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

NAME	PITCHING STYLE	BATTING STANCE	GLOVE HAND	CAP COLOR	FAVORITE SNACK
Ken Griffey	Slider	Open Stance	Right Handed	Gold Cap	Sunflowers
Shohei Ohtani	Knuckleball	Crouch Stance	Right Handed	Navy Cap	Sunflowers
Mike Trout	Slider	Open Stance	Left Handed	Navy Cap	Bubblegum
Kirby Puckett	Changeup	Switch Stance	Right Handed	Gold Cap	Sunflowers
Mookie Betts	Curveball	Crouch Stance	Right Handed	Gold Cap	Peanuts
Frank Thomas	Changeup	Tall Stance	Right Handed	Navy Cap	Sunflowers
Greg Maddux	Fastball	Open Stance	Right Handed	Gold Cap	Sunflowers
Justin Verlander	Fastball	Closed Stance	Left Handed	Navy Cap	Sunflowers
Roberto Clemente	Changeup	Open Stance	Right Handed	Gold Cap	Bubblegum
Clayton Kershaw	Changeup	Crouch Stance	Right Handed	Red Cap	Sunflowers
Aaron Judge	Fastball	Switch Stance	Left Handed	Red Cap	Sunflowers
Sandy Koufax	Fastball	Crouch Stance	Right Handed	Gold Cap	Peanuts
Babe Ruth	Slider	Crouch Stance	Left Handed	Red Cap	Sunflowers
Ernie Banks	Changeup	Tall Stance	Right Handed	Navy Cap	Peanuts
Bryce Harper	Curveball	Crouch Stance	Right Handed	Gold Cap	Bubblegum
Hank Aaron	Slider	Crouch Stance	Right Handed	Gold Cap	Sunflowers
Max Scherzer	Curveball	Tall Stance	Left Handed	Gold Cap	Sunflowers
Lou Gehrig	Changeup	Closed Stance	Left Handed	Red Cap	Bubblegum
Jackie Robinson	Slider	Closed Stance	Right Handed	Gold Cap	Sunflowers
Pedro Martinez	Changeup	Open Stance	Right Handed	Red Cap	Sunflowers
Ted Williams	Fastball	Tall Stance	Right Handed	Navy Cap	Sunflowers

CLUE 1
Pythagorean theorem

The field camera measured the straight-line distance across the infield base path using a right triangle formula.

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

T																	
75	65	50	30	125	50	116	26	74	75	65	82	50	37	20	39	50	30
		T							T					T			
125	39	75	25	30	50	30	58	82	75	111	65	30	75	116	125	111	50

legs 21 and 72, hypotenuse = → **T**

legs 18 and 24, hypotenuse = → **S**

legs 35 and 120, hypotenuse = → **N**

legs 80 and 84, hypotenuse = → **A**

legs 25 and 60, hypotenuse = → **H**

legs 10 and 24, hypotenuse = → **K**

legs 18 and 80, hypotenuse = → **I**

legs 40 and 42, hypotenuse = → **W**

legs 36 and 105, hypotenuse = → **C**

legs 24 and 70, hypotenuse = → **Y**

legs 30 and 40, hypotenuse = → **E**

legs 15 and 20, hypotenuse = → **U**

legs 12 and 35, hypotenuse = → **F**

legs 12 and 16, hypotenuse = → **D**

legs 15 and 36, hypotenuse = → **O**

Scratch space:

CLUE 2 Square roots

The stat screen calculated the exact side length of the square base area by taking a square root.

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

T										T											
18	19	20	17	25	20	22	8	3	18	19	7	20	6	24	17	20	17	22			

				T																
12	7	9	19	18	19	22	25	11	20	11	9	23	4	16	20					

$\sqrt{324} = \square \rightarrow$ T	$\sqrt{144} = \square \rightarrow$ R	$\sqrt{576} = \square \rightarrow$ U
$\sqrt{625} = \square \rightarrow$ N	$\sqrt{484} = \square \rightarrow$ A	$\sqrt{64} = \square \rightarrow$ K
$\sqrt{9} = \square \rightarrow$ Y	$\sqrt{49} = \square \rightarrow$ I	$\sqrt{121} = \square \rightarrow$ D
$\sqrt{16} = \square \rightarrow$ O	$\sqrt{529} = \square \rightarrow$ L	$\sqrt{289} = \square \rightarrow$ S
$\sqrt{400} = \square \rightarrow$ E	$\sqrt{256} = \square \rightarrow$ V	$\sqrt{36} = \square \rightarrow$ F
$\sqrt{81} = \square \rightarrow$ G	$\sqrt{361} = \square \rightarrow$ H	

Scratch space:

CLUE 3

Exponents

The bullpen radar array multiplied speed factors exponentially to track the ball flight path.

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

T										T								
121	100	27	144	128	27	49	196	8	121	100	343	27	225	32	49	144		
225	484	343	125	27	729	400	8	144	361	128	225	125	484	32	27	289	144	

$11^2 = \square \rightarrow \boxed{\text{T}}$

$7^2 = \square \rightarrow \boxed{\text{A}}$

$10^2 = \square \rightarrow \boxed{\text{H}}$

$14^2 = \square \rightarrow \boxed{\text{K}}$

$12^2 = \square \rightarrow \boxed{\text{S}}$

$3^3 = \square \rightarrow \boxed{\text{E}}$

$2^7 = \square \rightarrow \boxed{\text{N}}$

$15^2 = \square \rightarrow \boxed{\text{F}}$

$17^2 = \square \rightarrow \boxed{\text{R}}$

$22^2 = \square \rightarrow \boxed{\text{O}}$

$5^3 = \square \rightarrow \boxed{\text{L}}$

$19^2 = \square \rightarrow \boxed{\text{U}}$

$2^5 = \square \rightarrow \boxed{\text{W}}$

$7^3 = \square \rightarrow \boxed{\text{I}}$

$3^6 = \square \rightarrow \boxed{\text{D}}$

$2^3 = \square \rightarrow \boxed{\text{Y}}$

$20^2 = \square \rightarrow \boxed{\text{B}}$

Scratch space:

CLUE 4

Order of operations

The stadium scoreboard followed strict order of operations rules to evaluate the total score expression.

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

G																	
89	71	92	79	69	83	104	106	37	73	42	68	30	7	42	68	42	
92	42	106	119	83	119	119	10	42	92	71	69	52	42	68			

$74 + 3 \times 5 = \square \rightarrow \text{G}$

$12 \times 12 - 25 = \square \rightarrow \text{T}$

$10 \times 12 - 14 = \square \rightarrow \text{F}$

$49 + 5 \times 4 = \square \rightarrow \text{C}$

$92 + 2 \times 6 = \square \rightarrow \text{P}$

$49 + 6 \times 5 = \square \rightarrow \text{D}$

$7 \times 12 - 13 = \square \rightarrow \text{O}$

$34 + 9 \times 2 = \square \rightarrow \text{K}$

$9 \times 10 - 17 = \square \rightarrow \text{B}$

$5 + 8 \times 4 = \square \rightarrow \text{I}$

$9 \times 9 - 13 = \square \rightarrow \text{R}$

$12 \times 10 - 28 = \square \rightarrow \text{L}$

$4 + 2 \times 3 = \square \rightarrow \text{H}$

$22 + 4 \times 2 = \square \rightarrow \text{S}$

$6 \times 10 - 18 = \square \rightarrow \text{E}$

$12 \times 8 - 13 = \square \rightarrow \text{A}$

$7 \times 3 - 14 = \square \rightarrow \text{W}$

Scratch space:

CLUE 5**Square roots - the last clue**

The umpire checked the dimensions of the outfield scoreboard grid using a square root calculation.

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:

$\sqrt{64} = \boxed{}$

$\sqrt{25} = \boxed{}$

$\sqrt{144} = \boxed{}$

$\sqrt{9} = \boxed{}$

$\sqrt{36} = \boxed{}$

$\sqrt{4} = \boxed{}$

$\sqrt{100} = \boxed{}$

$\sqrt{16} = \boxed{}$

$\sqrt{49} = \boxed{}$

$\sqrt{121} = \boxed{}$

$\sqrt{1} = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain threw a blazing fastball, then dropped into a crouch stance.
2. The villain snuck in a slow changeup, then set up in a closed stance.
3. The villain swept a slick slider, then switched into a switch stance.
4. The villain floated a weird knuckleball, then stood high in a tall stance.
5. The villain swept a slick slider, then dropped into a crouch stance.
6. The villain floated a weird knuckleball, then set up in a closed stance.
7. The villain snuck in a slow changeup, then dropped into a crouch stance.
8. The villain swept a slick slider, then stepped into an open stance.
9. The villain swept a slick slider, then set up in a closed stance.
10. The villain threw a blazing fastball, then stood high in a tall stance.
11. The villain floated a weird knuckleball, then dropped into a crouch stance.
12. The villain threw a blazing fastball, then stepped into an open stance.

Answer Key

The Missing Championship Trophy Mystery

Culprit: Jackie Robinson

Slider · Closed Stance · Right Handed · Gold Cap · Sunflowers

Trail: Start 21 → Clue 1 19 → Clue 2 14 → Clue 3 9 → Clue 4 4 → Clue 5 1

Clue 1 (Pythagorean theorem): "THE SNEAKY THIEF DOES NOT USE SWITCH STANCE"

legs 21 and 72, hypotenuse = 75 (T) · legs 18 and 24, hypotenuse = 30 (S) · legs 35 and 120, hypotenuse = 125 (N) · legs 80 and 84, hypotenuse = 116 (A) · legs 25 and 60, hypotenuse = 65 (H) · legs 10 and 24, hypotenuse = 26 (K) · legs 18 and 80, hypotenuse = 82 (I) · legs 40 and 42, hypotenuse = 58 (W) · legs 36 and 105, hypotenuse = 111 (C) · legs 24 and 70, hypotenuse = 74 (Y) · legs 30 and 40, hypotenuse = 50 (E) · legs 15 and 20, hypotenuse = 25 (U) · legs 12 and 35, hypotenuse = 37 (F) · legs 12 and 16, hypotenuse = 20 (D) · legs 15 and 36, hypotenuse = 39 (O)

Clue 2 (Square roots): "THE SNEAKY THIEF USES A RIGHT HANDED GLOVE"

$\sqrt{324} = 18$ (T) · $\sqrt{144} = 12$ (R) · $\sqrt{576} = 24$ (U) · $\sqrt{625} = 25$ (N) · $\sqrt{484} = 22$ (A) · $\sqrt{64} = 8$ (K) · $\sqrt{9} = 3$ (Y) · $\sqrt{49} = 7$ (I) · $\sqrt{121} = 11$ (D) · $\sqrt{16} = 4$ (O) · $\sqrt{529} = 23$ (L) · $\sqrt{289} = 17$ (S) · $\sqrt{400} = 20$ (E) · $\sqrt{256} = 16$ (V) · $\sqrt{36} = 6$ (F) · $\sqrt{81} = 9$ (G) · $\sqrt{361} = 19$ (H)

Clue 3 (Exponents): "THE SNEAKY THIEF WAS FOILED BY SUNFLOWERS"

$11^2 = 121$ (T) · $7^2 = 49$ (A) · $10^2 = 100$ (H) · $14^2 = 196$ (K) · $12^2 = 144$ (S) · $3^3 = 27$ (E) · $2^7 = 128$ (N) · $15^2 = 225$ (F) · $17^2 = 289$ (R) · $22^2 = 484$ (O) · $5^3 = 125$ (L) · $19^2 = 361$ (U) · $2^5 = 32$ (W) · $7^3 = 343$ (I) · $3^6 = 729$ (D) · $2^3 = 8$ (Y) · $20^2 = 400$ (B)

Clue 4 (Order of operations): "GOLD CAP FIBERS WERE LEFT AT THE LOCKER"

$74 + 3 \times 5 = 89$ (G) · $12 \times 12 - 25 = 119$ (T) · $10 \times 12 - 14 = 106$ (F) · $49 + 5 \times 4 = 69$ (C) · $92 + 2 \times 6 = 104$ (P) · $49 + 6 \times 5 = 79$ (D) · $7 \times 12 - 13 = 71$ (O) · $34 + 9 \times 2 = 52$ (K) · $9 \times 10 - 17 = 73$ (B) · $5 + 8 \times 4 = 37$ (I) · $9 \times 9 - 13 = 68$ (R) · $12 \times 10 - 28 = 92$ (L) · $4 + 2 \times 3 = 10$ (H) · $22 + 4 \times 2 = 30$ (S) · $6 \times 10 - 18 = 42$ (E) · $12 \times 8 - 13 = 83$ (A) · $7 \times 3 - 14 = 7$ (W)

Clue 5 (Square roots): surviving statement is box 9 → Jackie Robinson

$\sqrt{64} = 8$ · $\sqrt{25} = 5$ · $\sqrt{144} = 12$ · $\sqrt{9} = 3$ · $\sqrt{36} = 6$ · $\sqrt{4} = 2$ · $\sqrt{100} = 10$ · $\sqrt{16} = 4$ · $\sqrt{49} = 7$ · $\sqrt{121} = 11$ · $\sqrt{1} = 1$