



The Literary Links Heist

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

Detective: _____ **Date:** _____

The Golden Bookmark Trophy has vanished right before the final round of the Katseye Invitational Literary Golf Classic! A mysterious note says the trophy will only be returned if we can solve the math riddles scattered across the eighteen holes. Grab your putter and your favorite chapter book, detective, because we have a mystery to solve!

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 The Fairway 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 GOLF SWING	SPECIAL ACCESSORY	STANCE TELL	HAIR LOOK	KNOWN WEAKNESS
Nelly Korda	vocal sonic boom	confetti blaster	right handed grip	neon pink visor hair	heavy dust allergies
Lexi Thompson	iron wedge swinging	shadow step walk	right handed grip	neon pink visor hair	heavy dust allergies
Sophia	iron wedge swinging	laser pointer sight	left handed grip	ink stained braids	shiny gold trophies
Ruoning Yin	golf ball teleportation	shadow step walk	right handed grip	golden ponytail	heavy dust allergies
Patty Tavatanakit	super speed reading	page turning wind	right handed grip	golden ponytail	heavy dust allergies
Brooke Henderson	golf ball teleportation	hover golf shoes	right handed grip	neon pink visor hair	shiny gold trophies
Celine Boutier	iron wedge swinging	shadow step walk	left handed grip	neon pink visor hair	loud pop music
Megan	iron wedge swinging	hover golf shoes	right handed grip	golden ponytail	shiny gold trophies
Daniela	super speed reading	hover golf shoes	left handed grip	golden ponytail	heavy dust allergies
Lydia Ko	golf ball teleportation	laser pointer sight	left handed grip	neon pink visor hair	loud pop music
Jin Young Ko	golf ball teleportation	hover golf shoes	left handed grip	neon pink visor hair	heavy dust allergies
Linn Grant	book spine climbing	confetti blaster	left handed grip	ink stained braids	loud pop music
Lara	vocal sonic boom	laser pointer sight	left handed grip	ink stained braids	shiny gold trophies
Maja Stark	golf ball teleportation	laser pointer sight	right handed grip	ink stained braids	shiny gold trophies
Lilia Vu	golf ball teleportation	hover golf shoes	right handed grip	golden ponytail	heavy dust allergies
Yuka Saso	super speed reading	laser pointer sight	right handed grip	neon pink visor hair	shiny gold trophies
Georgia Hall	vocal sonic boom	laser pointer sight	left handed grip	golden ponytail	heavy dust allergies
Minjee Lee	vocal sonic boom	laser pointer sight	right handed grip	golden ponytail	heavy dust allergies
Charley Hull	golf ball teleportation	page turning wind	right handed grip	ink stained braids	heavy dust allergies
Gaby Lopez	book spine climbing	shadow step walk	right handed grip	golden ponytail	heavy dust allergies
Yoonchae	golf ball teleportation	page turning wind	left handed grip	golden ponytail	loud pop music

CLUE 1

The suspect left behind a ripped scorecard in the bunker. We have to calculate what fraction of the holes they played to find our first clue.

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

Diagram illustrating the memory bank structure and data flow. The memory bank is divided into two rows of 16 slots each. The top row shows a sequence of values: 14, 5, 32, 17, 2, 30, 30, 29, 2, 27, 9, 13, 32, 7, 27, 13, 14. The bottom row shows a sequence of values: 5, 29, 17, 32, 20, 29, 36, 32, 14, 18, 19, 27, 2, 27, 36, 22, 2, 27, 9. The 9th slot (index 8) in both rows is highlighted with an orange background and contains a red 'T'.

$1/10$ of 140 = → **T**

$2/4$ of 26 = $\rightarrow$

$6/10$ of $60 = \square \rightarrow \boxed{\text{G}}$

$\frac{1}{4}$ of 8 = $\rightarrow$

$\frac{1}{4}$ of 72 = $\rightarrow$

$2/8$ of 68 = $\rightarrow$

$\frac{1}{3}$ of 15 = $\rightarrow$ **H**

$\frac{1}{4}$ of 80 = $\rightarrow$ **P**

$3/6$ of $58 = \square \rightarrow \boxed{\mathbf{A}}$

$\frac{1}{8}$ of 56 = $\rightarrow$ **S**

2/4 of 60 = → **L**

$6/10$ of $15 = \square \rightarrow \boxed{\text{D}}$

$2/4$ of $54 = \square \rightarrow \boxed{\text{N}}$

$4/8$ of $38 = \square \rightarrow \boxed{\mathbf{R}}$

$1/5$ of 110 = $\rightarrow$ **W**

$$\frac{1}{5} \text{ of } 160 = \boxed{} \rightarrow \boxed{\text{E}}$$

Scratch space:

CLUE 2
Order of operations

At the practice range, the golf ball retriever machine got completely scrambled. Solve this multi-step equation to unlock the machine log for our next clue.

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

T									T										T	
72	47	42	26	69	26	53	42	21	72	26	51	59	46	74	26	51	59	72	47	
					T															
80	38	59	74	47	72	47	80	46	40	42	40	74	38	59	53					

$7 \times 12 - 12 = \square \rightarrow \text{[T]}$

$11 + 5 \times 2 = \square \rightarrow \text{[C]}$

$10 \times 8 - 27 = \square \rightarrow \text{[P]}$

$7 \times 8 - 30 = \square \rightarrow \text{[S]}$

$4 + 6 \times 6 = \square \rightarrow \text{[D]}$

$6 \times 10 - 22 = \square \rightarrow \text{[R]}$

$5 \times 10 - 4 = \square \rightarrow \text{[N]}$

$23 + 4 \times 7 = \square \rightarrow \text{[W]}$

$8 \times 8 - 5 = \square \rightarrow \text{[I]}$

$33 + 2 \times 7 = \square \rightarrow \text{[H]}$

$10 \times 9 - 16 = \square \rightarrow \text{[G]}$

$18 + 6 \times 4 = \square \rightarrow \text{[E]}$

$59 + 7 \times 3 = \square \rightarrow \text{[A]}$

$55 + 2 \times 7 = \square \rightarrow \text{[U]}$

Scratch space:

CLUE 3

Multiplication facts (1-12)

A stack of Katseye albums was found stacked in neat rows near the locker room. Let us multiply the rows to find out which weakness the suspect has.

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

O					O	O													
35	18	60	40	35	35	88	60	30	55	120	5	12	60	33	120	66	33	5	
55	54	33	33	4	33	12	54	60	121	30	54								

$7 \times 5 = \square \rightarrow \boxed{\text{O}}$

$12 \times 10 = \square \rightarrow \boxed{\text{T}}$

$2 \times 9 = \square \rightarrow \boxed{\text{L}}$

$6 \times 10 = \square \rightarrow \boxed{\text{D}}$

$5 \times 1 = \square \rightarrow \boxed{\text{M}}$

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

$9 \times 6 = \square \rightarrow \boxed{\text{N}}$

$11 \times 6 = \square \rightarrow \boxed{\text{H}}$

$2 \times 2 = \square \rightarrow \boxed{\text{Z}}$

$11 \times 8 = \square \rightarrow \boxed{\text{K}}$

$5 \times 8 = \square \rightarrow \boxed{\text{B}}$

$4 \times 3 = \square \rightarrow \boxed{\text{A}}$

$5 \times 6 = \square \rightarrow \boxed{\text{U}}$

$11 \times 3 = \square \rightarrow \boxed{\text{E}}$

$11 \times 5 = \square \rightarrow \boxed{\text{S}}$

Scratch space:

CLUE 4 Rounding

The high-tech yardage finder on the fairway is giving fuzzy numbers. We must round the yardage to the nearest ten to clear up the screen and see the suspect's hair color.

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

A				A					A						
3000	700	1300	20	3000	7000	2300	200	70	3000	170	200	130	2300	4300	7000
				A				A							
30	200	7000	1100	1300	3000	110	130	430	3000	700	130	4300	70	1300	

Round 3,398 to the nearest thousand → **A**

Round 1,275 to the nearest hundred → **T**

Round 26 to the nearest ten → **P**

Round 74 to the nearest ten → **F**

Round 106 to the nearest ten → **I**

Round 4,273 to the nearest hundred → **E**

Round 430 to the nearest ten → **W**

Round 7,257 to the nearest thousand → **N**

Round 1,080 to the nearest hundred → **Y**

Round 195 to the nearest hundred → **O**

Round 2,332 to the nearest hundred → **D**

Round 173 to the nearest ten → **G**

Round 129 to the nearest ten → **L**

Round 21 to the nearest ten → **R**

Round 730 to the nearest hundred → **S**

Scratch space:

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

We found a pile of mystery bookmarks dropped on the putting green. If we divide them equally among the players, we can uncover the secret swing style.

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:

$21 \div 3 = \boxed{}$

$3 \div 1 = \boxed{}$

$10 \div 1 = \boxed{}$

$24 \div 2 = \boxed{}$

$8 \div 4 = \boxed{}$

$30 \div 5 = \boxed{}$

$66 \div 6 = \boxed{}$

$1 \div 1 = \boxed{}$

$16 \div 4 = \boxed{}$

$15 \div 3 = \boxed{}$

$96 \div 12 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain teleports using a golf ball, then fires a colorful confetti blaster.
2. The villain scales the book spines to the roof, then zooms away on hover golf shoes.
3. The villain teleports using a golf ball, then disappears with a shadow step walk.
4. The villain swings an iron wedge like a pro, then disappears with a shadow step walk.
5. The villain swings an iron wedge like a pro, then blasts a mighty page turning wind.
6. The villain lets loose a vocal sonic boom, then blasts a mighty page turning wind.
7. The villain lets loose a vocal sonic boom, then aims a glowing laser pointer sight.
8. The villain teleports using a golf ball, then blasts a mighty page turning wind.
9. The villain teleports using a golf ball, then zooms away on hover golf shoes.
10. The villain scales the book spines to the roof, then disappears with a shadow step walk.
11. The villain speeds through books at lightspeed, then zooms away on hover golf shoes.
12. The villain swings an iron wedge like a pro, then fires a colorful confetti blaster.

Answer Key

The Literary Links Heist

Culprit: Lilia Vu

golf ball teleportation · hover golf shoes · right handed grip · golden ponytail · heavy dust allergies

Trail: Start 21 → Clue 1 18 → Clue 2 10 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Fractions of a number): "THE VILLAIN DOES NOT HAVE PAGE TURNING WIND"

$1/10$ of 140 = 14 (T) · $2/4$ of 26 = 13 (O) · $6/10$ of 60 = 36 (G) · $1/4$ of 8 = 2 (I) · $1/4$ of 72 = 18 (U) · $2/8$ of 68 = 17 (V) · $1/3$ of 15 = 5 (H) · $1/4$ of 80 = 20 (P) · $3/6$ of 58 = 29 (A) · $1/8$ of 56 = 7 (S) · $2/4$ of 60 = 30 (L) · $6/10$ of 15 = 9 (D) · $2/4$ of 54 = 27 (N) · $4/8$ of 38 = 19 (R) · $1/5$ of 110 = 22 (W) · $1/5$ of 160 = 32 (E)

Clue 2 (Order of operations): "THE SUSPECT SWINGS WITH A RIGHT HANDED GRIP"

$7 \times 12 - 12 = 72$ (T) · $11 + 5 \times 2 = 21$ (C) · $10 \times 8 - 27 = 53$ (P) · $7 \times 8 - 30 = 26$ (S) · $4 + 6 \times 6 = 40$ (D) · $6 \times 10 - 22 = 38$ (R) · $5 \times 10 - 4 = 46$ (N) · $23 + 4 \times 7 = 51$ (W) · $8 \times 8 - 5 = 59$ (I) · $33 + 2 \times 7 = 47$ (H) · $10 \times 9 - 16 = 74$ (G) · $18 + 6 \times 4 = 42$ (E) · $59 + 7 \times 3 = 80$ (A) · $55 + 2 \times 7 = 69$ (U)

Clue 3 (Multiplication facts (1-12)): "OLD BOOK DUST MADE THEM SNEEZE AND RUN"

$7 \times 5 = 35$ (O) · $12 \times 10 = 120$ (T) · $2 \times 9 = 18$ (L) · $6 \times 10 = 60$ (D) · $5 \times 1 = 5$ (M) · $11 \times 11 = 121$ (R) · $9 \times 6 = 54$ (N) · $11 \times 6 = 66$ (H) · $2 \times 2 = 4$ (Z) · $11 \times 8 = 88$ (K) · $5 \times 8 = 40$ (B) · $4 \times 3 = 12$ (A) · $5 \times 6 = 30$ (U) · $11 \times 3 = 33$ (E) · $11 \times 5 = 55$ (S)

Clue 4 (Rounding): "A STRAND OF A GOLDEN PONYTAIL WAS LEFT"

Round 3,398 to the nearest thousand = 3000 (A) · Round 1,275 to the nearest hundred = 1300 (T) · Round 26 to the nearest ten = 30 (P) · Round 74 to the nearest ten = 70 (F) · Round 106 to the nearest ten = 110 (I) · Round 4,273 to the nearest hundred = 4300 (E) · Round 430 to the nearest ten = 430 (W) · Round 7,257 to the nearest thousand = 7000 (N) · Round 1,080 to the nearest hundred = 1100 (Y) · Round 195 to the nearest hundred = 200 (O) · Round 2,332 to the nearest hundred = 2300 (D) · Round 173 to the nearest ten = 170 (G) · Round 129 to the nearest ten = 130 (L) · Round 21 to the nearest ten = 20 (R) · Round 730 to the nearest hundred = 700 (S)

Clue 5 (Division facts (1-12)): surviving statement is box 9 → Lilia Vu

$21 \div 3 = 7$ · $3 \div 1 = 3$ · $10 \div 1 = 10$ · $24 \div 2 = 12$ · $8 \div 4 = 2$ · $30 \div 5 = 6$ · $66 \div 6 = 11$ · $1 \div 1 = 1$ · $16 \div 4 = 4$ · $15 \div 3 = 5$ · $96 \div 12 = 8$