



The Mystery of the Missing Masterpiece

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

Detective: _____ Date: _____

A rare, gold-leafed golf novel has been stolen from the club's private collection! The suspect left behind a trail of golf tees, bookmarks, and scuffed turf. Help the junior detectives solve the clues and find 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 Rogue Reader is _____

Possible suspects

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

NAME	GOLF SHOT SIGNATURE	FAVORITE GENRE	GLOVE HAND	VISOR HAIR COLOR	GREATEST DISTRACTION
Lucy Li	lofted bunker shot	mystery fiction	left handed glove	sandy blonde	lost golf balls
Roald Dahl	trick chip	science fiction	left handed glove	sandy blonde	lost golf balls
Arnold Palmer	power drive	mystery fiction	right handed glove	ink black	noisy lawnmowers
Ben Hogan	power drive	historical adventure	right handed glove	sandy blonde	noisy lawnmowers
Jack Nicklaus	trick chip	sports biography	right handed glove	sandy blonde	noisy lawnmowers
Arthur Doyle	lofted bunker shot	mystery fiction	right handed glove	rusty red	overdue library fines
Jordan Spieth	laser wedge	science fiction	right handed glove	sandy blonde	noisy lawnmowers
Jules Verne	perfect putt	mystery fiction	left handed glove	ink black	lost golf balls
Annika Sorenstam	power drive	sports biography	right handed glove	ink black	overdue library fines
Virginia Woolf	trick chip	fantasy lore	right handed glove	sandy blonde	noisy lawnmowers
Rory McIlroy	perfect putt	historical adventure	left handed glove	ink black	lost golf balls
Nelly Korda	lofted bunker shot	historical adventure	right handed glove	sandy blonde	noisy lawnmowers
Lewis Carroll	trick chip	mystery fiction	left handed glove	ink black	overdue library fines
Babe Zaharias	power drive	science fiction	left handed glove	sandy blonde	lost golf balls
Mark Twain	trick chip	science fiction	right handed glove	sandy blonde	lost golf balls
Phil Mickelson	trick chip	fantasy lore	left handed glove	sandy blonde	overdue library fines
Walter Hagen	lofted bunker shot	science fiction	left handed glove	sandy blonde	overdue library fines
Edgar Poe	laser wedge	science fiction	right handed glove	ink black	overdue library fines
Mary Shelley	trick chip	mystery fiction	right handed glove	ink black	lost golf balls
Tiger Woods	lofted bunker shot	science fiction	left handed glove	rusty red	noisy lawnmowers
Jane Austen	lofted bunker shot	science fiction	left handed glove	sandy blonde	noisy lawnmowers

CLUE 1

The club librarian notices that a specific fraction of the golf books are missing. Solve this fraction puzzle to reveal the first clue.

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

20 16 39 20 16 13 39 17 18 2 39 15 10 2 20 25 39 5 18

$\frac{1}{8}$ of 160 = $\rightarrow$ **T**

$3/6$ of $32 = \square \rightarrow \boxed{\text{H}}$

6/10 of 30 = → **D**

$\frac{1}{6}$ of 12 = $\rightarrow$ ☒

2/6 of 75 = → **R**

$1/2$ of 26 = $\rightarrow$

2/8 of 68 = → **F**

$4/8$ of 30 = $\rightarrow$ **S**

5/10 of 78 = → **E**

2/10 of 45 = →

1/3 of 66 = → **L**

$\frac{1}{6}$ of 60 = $\rightarrow$ **N**

$\frac{1}{10}$ of 50 = $\rightarrow$ **A**

Scratch space:

CLUE 2

Order of operations

To unlock the library digital security log we must calculate a multi step math score from a scorecard. Follow the order of operations to solve it.

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

T			T												
49	41	45	49	41	60	45	46	75	30	68	40	40	45	75	6
				T											
30	60	14	41	49	41	6	52	75	45	75	14	69	68	29	45

$13 + 4 \times 9 = \square \rightarrow \boxed{\text{T}}$

$9 \times 5 - 15 = \square \rightarrow \boxed{\text{R}}$

$12 \times 5 - 14 = \square \rightarrow \boxed{\text{F}}$

$17 + 6 \times 2 = \square \rightarrow \boxed{\text{V}}$

$24 + 9 \times 4 = \square \rightarrow \boxed{\text{I}}$

$39 + 2 \times 3 = \square \rightarrow \boxed{\text{E}}$

$8 + 8 \times 4 = \square \rightarrow \boxed{\text{P}}$

$44 + 4 \times 2 = \square \rightarrow \boxed{\text{N}}$

$2 + 2 \times 2 = \square \rightarrow \boxed{\text{A}}$

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

$5 \times 10 - 9 = \square \rightarrow \boxed{\text{H}}$

$59 + 8 \times 2 = \square \rightarrow \boxed{\text{D}}$

$57 + 4 \times 3 = \square \rightarrow \boxed{\text{L}}$

$7 \times 11 - 9 = \square \rightarrow \boxed{\text{O}}$

Scratch space:

Multiplication facts (1-12)

The suspect left behind several organized crates of brand new golf balls. Multiply the rows of boxes to count the total balls and find the next clue.

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

T									T									T
90	25	108	70	22	70	3	108	20	90	20	15	48	108	81	108	24	12	90
50	15	100	70	7	27	12	48	50	88	15	48	108	81	70				

$10 \times 9 = \boxed{} \rightarrow \boxed{\text{T}}$

$$7 \times 10 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$2 \times 11 = \boxed{} \rightarrow \boxed{\text{U}}$$

$1 \times 7 =$ $\rightarrow$ **Y**

$12 \times 2 = \boxed{} \rightarrow \boxed{\text{D}}$

$5 \times 5 =$ $\rightarrow$ **H**

$$8 \times 11 = \boxed{} \rightarrow \boxed{\mathbf{M}}$$

$9 \times 9 = \boxed{} \rightarrow \boxed{\mathbf{R}}$

$8 \times 6 = \boxed{} \rightarrow \boxed{\mathbf{W}}$

$3 \times 4 = \square \rightarrow \mathbf{A}$

$10 \times 5 =$ $\rightarrow$ **N**

$10 \times 10 = \boxed{} \rightarrow \boxed{}$

$12 \times 9 = \boxed{} \rightarrow \boxed{\text{E}}$

$5 \times 4 =$ $\rightarrow$ **C**

$$3 \times 1 = \boxed{} \rightarrow \boxed{\text{P}}$$

$9 \times 3 = \square \rightarrow \boxed{\text{L}}$

$3 \times 5 = \square \rightarrow \boxed{0}$

Scratch space:

CLUE 4 Rounding

A laser rangefinder dropped on the fairway displays a yardage that we need to round to the nearest ten to pinpoint the escape route.

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

W															
290	300	90	70	500	130	230	900	9000	110	50	130	230	900	70	90
900	50	130	230	20	3700	1300	70	130	230	300	4300	50	2000	110	

Round 288 to the nearest ten → **W**

Round 518 to the nearest hundred → **U**

Round 52 to the nearest ten → **A**

Round 112 to the nearest ten → **R**

Round 234 to the nearest ten → **D**

Round 9,122 to the nearest thousand → **T**

Round 87 to the nearest ten → **F**

Round 259 to the nearest hundred → **E**

Round 3,742 to the nearest hundred → **B**

Round 891 to the nearest hundred → **S**

Round 1,649 to the nearest thousand → **I**

Round 19 to the nearest ten → **Y**

Round 70 to the nearest ten → **O**

Round 4,303 to the nearest hundred → **H**

Round 130 to the nearest ten → **N**

Round 1,342 to the nearest hundred → **L**

Scratch space:

CLUE 5**Fractions of a number - the last clue**

Our junior detective team needs to divide a stack of bookmark clues. Figure out the fraction of bookmarks assigned to each investigator to crack the final 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:

$1/3 \text{ of } 12 = \boxed{}$

$1/10 \text{ of } 80 = \boxed{}$

$5/10 \text{ of } 22 = \boxed{}$

$2/3 \text{ of } 15 = \boxed{}$

$3/6 \text{ of } 4 = \boxed{}$

$3/5 \text{ of } 5 = \boxed{}$

$2/4 \text{ of } 14 = \boxed{}$

$5/10 \text{ of } 10 = \boxed{}$

$3/4 \text{ of } 12 = \boxed{}$

$1/2 \text{ of } 2 = \boxed{}$

$4/6 \text{ of } 9 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain chipped a golf ball into the keyhole, then fled in a golf cart.
2. The villain swiped the rare book from the shelf, then dashed out the club entrance.
3. The villain distracted the librarian with a trick shot, then hid behind the book cart.
4. The villain chipped a golf ball into the keyhole, then dashed out the club entrance.
5. The villain swiped the rare book from the shelf, then fled in a golf cart.
6. The villain swiped the rare book from the shelf, then hid behind the book cart.
7. The villain snuck through the back library window, then dashed out the club entrance.
8. The villain snuck through the back library window, then bolted into the rough grass.
9. The villain snuck through the back library window, then hid behind the book cart.
10. The villain smashed a golf ball through the glass, then bolted into the rough grass.
11. The villain distracted the librarian with a trick shot, then bolted into the rough grass.
12. The villain smashed a golf ball through the glass, then hid behind the book cart.

Answer Key

The Mystery of the Missing Masterpiece

Culprit: Jordan Spieth

laser wedge · science fiction · right handed glove · sandy blonde · noisy lawnmowers

Trail: Start 21 → Clue 1 19 → Clue 2 10 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Fractions of a number): "THE THIEF DOES NOT READ FANTASY LORE"

$\frac{1}{8}$ of 160 = 20 (T) · $\frac{3}{6}$ of 32 = 16 (H) · $\frac{6}{10}$ of 30 = 18 (D) · $\frac{1}{6}$ of 12 = 2 (O) · $\frac{2}{6}$ of 75 = 25 (R) · $\frac{1}{2}$ of 26 = 13 (I) · $\frac{2}{8}$ of 68 = 17 (F) · $\frac{4}{8}$ of 30 = 15 (S) · $\frac{5}{10}$ of 78 = 39 (E) · $\frac{2}{10}$ of 45 = 9 (Y) · $\frac{1}{3}$ of 66 = 22 (L) · $\frac{1}{6}$ of 60 = 10 (N) · $\frac{1}{10}$ of 50 = 5 (A)

Clue 2 (Order of operations): "THE THIEF DROPPED A RIGHT HANDED GLOVE"

$13 + 4 \times 9 = 49$ (T) · $9 \times 5 - 15 = 30$ (R) · $12 \times 5 - 14 = 46$ (F) · $17 + 6 \times 2 = 29$ (V) · $24 + 9 \times 4 = 60$ (I) · $39 + 2 \times 3 = 45$ (E) · $8 + 8 \times 4 = 40$ (P) · $44 + 4 \times 2 = 52$ (N) · $2 + 2 \times 2 = 6$ (A) · $2 + 4 \times 3 = 14$ (G) · $5 \times 10 - 9 = 41$ (H) · $59 + 8 \times 2 = 75$ (D) · $57 + 4 \times 3 = 69$ (L) · $7 \times 11 - 9 = 68$ (O)

Clue 3 (Multiplication facts (1-12)): "THE SUSPECT COWERED AT NOISY LAWNMOWERS"

$10 \times 9 = 90$ (T) · $7 \times 10 = 70$ (S) · $2 \times 11 = 22$ (U) · $1 \times 7 = 7$ (Y) · $12 \times 2 = 24$ (D) · $5 \times 5 = 25$ (H) · $8 \times 11 = 88$ (M) · $9 \times 9 = 81$ (R) · $8 \times 6 = 48$ (W) · $3 \times 4 = 12$ (A) · $10 \times 5 = 50$ (N) · $10 \times 10 = 100$ (I) · $12 \times 9 = 108$ (E) · $5 \times 4 = 20$ (C) · $3 \times 1 = 3$ (P) · $9 \times 3 = 27$ (L) · $3 \times 5 = 15$ (O)

Clue 4 (Rounding): "WE FOUND STRANDS OF SANDY BLONDE HAIR"

Round 288 to the nearest ten = 290 (W) · Round 518 to the nearest hundred = 500 (U) · Round 52 to the nearest ten = 50 (A) · Round 112 to the nearest ten = 110 (R) · Round 234 to the nearest ten = 230 (D) · Round 9,122 to the nearest thousand = 9000 (T) · Round 87 to the nearest ten = 90 (F) · Round 259 to the nearest hundred = 300 (E) · Round 3,742 to the nearest hundred = 3700 (B) · Round 891 to the nearest hundred = 900 (S) · Round 1,649 to the nearest thousand = 2000 (I) · Round 19 to the nearest ten = 20 (Y) · Round 70 to the nearest ten = 70 (O) · Round 4,303 to the nearest hundred = 4300 (H) · Round 130 to the nearest ten = 130 (N) · Round 1,342 to the nearest hundred = 1300 (L)

Clue 5 (Fractions of a number): surviving statement is box 12 → Jordan Spieth

$\frac{1}{3}$ of 12 = 4 · $\frac{1}{10}$ of 80 = 8 · $\frac{5}{10}$ of 22 = 11 · $\frac{2}{3}$ of 15 = 10 · $\frac{3}{6}$ of 4 = 2 · $\frac{3}{5}$ of 5 = 3 · $\frac{2}{4}$ of 14 = 7 · $\frac{5}{10}$ of 10 = 5 · $\frac{3}{4}$ of 12 = 9 · $\frac{1}{2}$ of 2 = 1 · $\frac{4}{6}$ of 9 = 6