



The Mystery of the Missing Masterpiece

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

Detective: _____ Date: _____

The golden Hacker's Almanac has been stolen right before the annual Fairway Literary Open! The thief left a trail of torn pages and damaged golf tees all over the course.

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	GOLF SHOT STYLE	BOOKISH GEAR	SWING HAND	VISOR HAIRCUT	GOLF HAZARD WEAKNESS
Ernest Hemingway	bouncing hook shot	paper storm	left handed swing	slicked back pony	loud whispering
Jane Austen	bouncing hook shot	bookmark shield	left handed swing	spiky visor hair	rough grass
Tolkien	gravity golf slice	hover book	right handed swing	spiky visor hair	rough grass
Mark Twain	bouncing hook shot	hover book	left handed swing	slicked back pony	deep water hazard
Phil Mickelson	bouncing hook shot	hover book	right handed swing	spiky visor hair	loud whispering
Arnold Palmer	magnetic golf swing	ink sprayer	right handed swing	slicked back pony	loud whispering
Nancy Drew	gravity golf slice	glowing glasses	right handed swing	spiky visor hair	rough grass
Edgar Poe	gravity golf slice	bookmark shield	right handed swing	spiky visor hair	rough grass
Payne Stewart	magnetic golf swing	paper storm	right handed swing	spiky visor hair	rough grass
Huckleberry Finn	wind tunnel drive	ink sprayer	right handed swing	slicked back pony	deep water hazard
Gary Player	gravity golf slice	glowing glasses	right handed swing	spiky visor hair	deep water hazard
Ben Hogan	sonic putt	glowing glasses	left handed swing	slicked back pony	deep water hazard
Alice Liddell	gravity golf slice	glowing glasses	left handed swing	spiky visor hair	rough grass
Rory McIlroy	wind tunnel drive	paper storm	left handed swing	spiky visor hair	rough grass
Tiger Woods	wind tunnel drive	bookmark shield	right handed swing	messy curls	deep water hazard
Herman Melville	wind tunnel drive	bookmark shield	right handed swing	messy curls	rough grass
Charles Dickens	gravity golf slice	bookmark shield	right handed swing	messy curls	rough grass
George Orwell	magnetic golf swing	ink sprayer	right handed swing	spiky visor hair	rough grass
Sherlock Holmes	bouncing hook shot	ink sprayer	right handed swing	spiky visor hair	rough grass
Jack Nicklaus	wind tunnel drive	paper storm	right handed swing	slicked back pony	deep water hazard
Seve Ballesteros	sonic putt	hover book	left handed swing	messy curls	deep water hazard

CLUE 1

Fractions of a number

We search the wrecked archives. Only a fraction of the index cards are still in their drawers, which points us to our first clue.

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

35 15 37 8 15 30 4 35 5 39 18 5 37 33 4 5 35

2 33 37 30 4 21 4 23 33 8 29 30 7 37 29

$7/8$ of 40 = → T	$1/3$ of 21 = → Y	$5/6$ of 6 = → O
$1/6$ of 12 = → U	$4/8$ of 42 = → I	$5/10$ of 78 = → M
$2/3$ of 12 = → P	$1/4$ of 92 = → K	$2/8$ of 132 = → S
$2/5$ of 45 = → D	$1/6$ of 24 = → N	$1/6$ of 180 = → A
$3/6$ of 30 = → H	$2/6$ of 87 = → R	$2/4$ of 74 = → E

$$\frac{1}{6} \text{ of } 12 = \boxed{} \rightarrow \boxed{\text{U}} \qquad \frac{4}{8} \text{ of } 42 = \boxed{} \rightarrow \boxed{\text{I}} \qquad \frac{5}{10} \text{ of } 78 = \boxed{} \rightarrow \boxed{\text{M}}$$

$$\frac{2}{3} \text{ of } 12 = \boxed{} \rightarrow \boxed{\text{P}} \qquad \frac{1}{4} \text{ of } 92 = \boxed{} \rightarrow \boxed{\text{K}} \qquad \frac{2}{8} \text{ of } 132 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$\frac{2}{5} \text{ of } 45 = \boxed{} \rightarrow \boxed{\text{D}} \qquad \frac{1}{6} \text{ of } 24 = \boxed{} \rightarrow \boxed{\text{N}} \qquad \frac{1}{6} \text{ of } 180 = \boxed{} \rightarrow \boxed{\text{A}}$$

$$\frac{3}{6} \text{ of } 30 = \boxed{} \rightarrow \boxed{\text{H}} \quad \frac{2}{6} \text{ of } 87 = \boxed{} \rightarrow \boxed{\text{R}} \quad \frac{2}{4} \text{ of } 74 = \boxed{} \rightarrow \boxed{\text{E}}$$

Scratch space:

CLUE 2 Addition

We count the total number of neon golf tees left scattered across the fairways to reveal the thief's direction.

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

R																
6613	3065	9654	8705	9603	8705	6459	9630	9249	3709	9249	9249	3065	6437	5589	9603	4330

		R												R			
2895	3709	6613	3709	5728	5589	8008	9630	9249	5589	9630	9603	8705	3709	9654	6613	3709	9630

$$3356 + 3257 = \boxed{} \rightarrow \boxed{\text{R}}$$

$$1037 + 2028 = \boxed{} \rightarrow \boxed{\text{I}}$$

$$2622 + 3106 = \boxed{} \rightarrow \boxed{\text{F}}$$

$$4257 + 2202 = \boxed{} \rightarrow \boxed{\text{A}}$$

$$2175 + 2155 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$5514 + 2494 = \boxed{} \rightarrow \boxed{\text{U}}$$

$$4012 + 4693 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$5433 + 3816 = \boxed{} \rightarrow \boxed{\text{D}}$$

$$6432 + 3198 = \boxed{} \rightarrow \boxed{\text{N}}$$

$$1700 + 2009 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$2373 + 3216 = \boxed{} \rightarrow \boxed{\text{O}}$$

$$1779 + 1116 = \boxed{} \rightarrow \boxed{\text{W}}$$

$$2668 + 3769 = \boxed{} \rightarrow \boxed{\text{V}}$$

$$4326 + 5277 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$4035 + 5619 = \boxed{} \rightarrow \boxed{\text{G}}$$

Scratch space:

CLUE 3 Subtraction

The thief tore pages out of the encyclopedia. Subtracting the remaining pages from the total tells us how much they stole.

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

T							T			T									
3603	8857	6713	5762	8857	4250	5401	3603	8535	5013	3603	1954	2738	5762	5762	6713	8479	8535	5401	

T												
3603	8857	6713	1954	8535	6035	4419	8857	4419	1954	4250	8416	8416

6113 - 2510 = → T	6298 - 536 = → P	5464 - 451 = → M
11938 - 3403 = → O	8464 - 1751 = → E	9410 - 553 = → H
6737 - 3999 = → I	13333 - 4917 = → S	9271 - 3870 = → N
6682 - 2432 = → A	4592 - 2638 = → R	8379 - 2344 = → U
4904 - 485 = → G	9787 - 1308 = → D	

Scratch space:

CLUE 4

Order of operations

We find a coded golf scorecard. To solve the sequence, we must follow the strict rules of operations to find the hidden message.

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

S							S									S
38	29	73	35	63	77	73	38	34	60	24	69	73	60	45	69	38

S															
38	70	69	12	12	68	53	34	70	69	64	60	69	70	57	24

$13 + 5 \times 5 = \square \rightarrow \boxed{\text{S}}$

$19 + 3 \times 5 = \square \rightarrow \boxed{\text{O}}$

$9 \times 8 - 3 = \square \rightarrow \boxed{\text{A}}$

$55 + 2 \times 9 = \square \rightarrow \boxed{\text{I}}$

$10 \times 6 - 3 = \square \rightarrow \boxed{\text{C}}$

$47 + 2 \times 8 = \square \rightarrow \boxed{\text{Y}}$

$8 \times 11 - 18 = \square \rightarrow \boxed{\text{N}}$

$6 \times 12 - 12 = \square \rightarrow \boxed{\text{R}}$

$9 \times 11 - 22 = \square \rightarrow \boxed{\text{V}}$

$10 + 9 \times 6 = \square \rightarrow \boxed{\text{B}}$

$14 + 2 \times 5 = \square \rightarrow \boxed{\text{H}}$

$5 \times 11 - 26 = \square \rightarrow \boxed{\text{P}}$

$12 \times 2 - 12 = \square \rightarrow \boxed{\text{G}}$

$12 \times 8 - 28 = \square \rightarrow \boxed{\text{E}}$

$32 + 3 \times 7 = \square \rightarrow \boxed{\text{D}}$

$6 \times 7 - 7 = \square \rightarrow \boxed{\text{K}}$

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

Scratch space:

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

Confetti from shredded book pages covers a fraction of the putting green. Finding the exact portion leads us to 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:

$4/10 \text{ of } 5 = \boxed{}$

$1/5 \text{ of } 45 = \boxed{}$

$1/5 \text{ of } 50 = \boxed{}$

$2/4 \text{ of } 8 = \boxed{}$

$2/6 \text{ of } 9 = \boxed{}$

$5/10 \text{ of } 16 = \boxed{}$

$1/2 \text{ of } 10 = \boxed{}$

$1/3 \text{ of } 18 = \boxed{}$

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

$1/5 \text{ of } 35 = \boxed{}$

$3/10 \text{ of } 40 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain blasted a wind tunnel drive, then blocked the exit with a bookmark shield.
2. The villain launched a gravity golf slice, then scouted the room with glowing glasses.
3. The villain swung a magnetic golf club, then splattered the walls with an ink sprayer.
4. The villain blasted a wind tunnel drive, then scouted the room with glowing glasses.
5. The villain struck a loud sonic putt, then blinded the guards with a paper storm.
6. The villain curved a bouncing hook shot, then blocked the exit with a bookmark shield.
7. The villain curved a bouncing hook shot, then escaped the scene riding a hover book.
8. The villain struck a loud sonic putt, then splattered the walls with an ink sprayer.
9. The villain launched a gravity golf slice, then blocked the exit with a bookmark shield.
10. The villain swung a magnetic golf club, then blinded the guards with a paper storm.
11. The villain launched a gravity golf slice, then escaped the scene riding a hover book.
12. The villain launched a gravity golf slice, then splattered the walls with an ink sprayer.

Answer Key

The Mystery of the Missing Masterpiece

Culprit: Tolkien

gravity golf slice · hover book · right handed swing · spiky visor hair · rough grass

Trail: Start 21 → Clue 1 17 → Clue 2 10 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Fractions of a number): "THE PHANTOM DOES NOT USE AN INK SPRAYER"

$7/8$ of 40 = 35 (T) · $1/3$ of 21 = 7 (Y) · $5/6$ of 6 = 5 (O) · $1/6$ of 12 = 2 (U) · $4/8$ of 42 = 21 (I) · $5/10$ of 78 = 39 (M) · $2/3$ of 12 = 8 (P) · $1/4$ of 92 = 23 (K) · $2/8$ of 132 = 33 (S) · $2/5$ of 45 = 18 (D) · $1/6$ of 24 = 4 (N) · $1/6$ of 180 = 30 (A) · $3/6$ of 30 = 15 (H) · $2/6$ of 87 = 29 (R) · $2/4$ of 74 = 37 (E)

Clue 2 (Addition): "RIGHT HANDED DIVOTS WERE FOUND ON THE GREEN"

$3356 + 3257 = 6613$ (R) · $1037 + 2028 = 3065$ (I) · $2622 + 3106 = 5728$ (F) · $4257 + 2202 = 6459$ (A) · $2175 + 2155 = 4330$ (S) · $5514 + 2494 = 8008$ (U) · $4012 + 4693 = 8705$ (H) · $5433 + 3816 = 9249$ (D) · $6432 + 3198 = 9630$ (N) · $1700 + 2009 = 3709$ (E) · $2373 + 3216 = 5589$ (O) · $1779 + 1116 = 2895$ (W) · $2668 + 3769 = 6437$ (V) · $4326 + 5277 = 9603$ (T) · $4035 + 5619 = 9654$ (G)

Clue 3 (Subtraction): "THE PHANTOM TRIPPED ON THE ROUGH GRASS"

$6113 - 2510 = 3603$ (T) · $6298 - 536 = 5762$ (P) · $5464 - 451 = 5013$ (M) · $11938 - 3403 = 8535$ (O) · $8464 - 1751 = 6713$ (E) · $9410 - 553 = 8857$ (H) · $6737 - 3999 = 2738$ (I) · $13333 - 4917 = 8416$ (S) · $9271 - 3870 = 5401$ (N) · $6682 - 2432 = 4250$ (A) · $4592 - 2638 = 1954$ (R) · $8379 - 2344 = 6035$ (U) · $4904 - 485 = 4419$ (G) · $9787 - 1308 = 8479$ (D)

Clue 4 (Order of operations): "SPIKY VISOR HAIR WAS SNAGGED ON A BRANCH"

$13 + 5 \times 5 = 38$ (S) · $19 + 3 \times 5 = 34$ (O) · $9 \times 8 - 3 = 69$ (A) · $55 + 2 \times 9 = 73$ (I) · $10 \times 6 - 3 = 57$ (C) · $47 + 2 \times 8 = 63$ (Y) · $8 \times 11 - 18 = 70$ (N) · $6 \times 12 - 12 = 60$ (R) · $9 \times 11 - 22 = 77$ (V) · $10 + 9 \times 6 = 64$ (B) · $14 + 2 \times 5 = 24$ (H) · $5 \times 11 - 26 = 29$ (P) · $12 \times 2 - 12 = 12$ (G) · $12 \times 8 - 28 = 68$ (E) · $32 + 3 \times 7 = 53$ (D) · $6 \times 7 - 7 = 35$ (K) · $9 + 6 \times 6 = 45$ (W)

Clue 5 (Fractions of a number): surviving statement is box 11 → Tolkien

$4/10$ of 5 = 2 · $1/5$ of 45 = 9 · $1/5$ of 50 = 10 · $2/4$ of 8 = 4 · $2/6$ of 9 = 3 · $5/10$ of 16 = 8 · $1/2$ of 10 = 5 · $1/3$ of 18 = 6 · $1/3$ of 3 = 1 · $1/5$ of 35 = 7 · $3/10$ of 40 = 12