The Phantom of Blackwood Manor

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

Detective: _____ **Date:** _____

A creepy shadow creature has raided the Whispering Archives of Blackwood Manor, locking away the town's oldest histories. Detective, examine the eerie evidence left behind to unmask the culprit before midnight!

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 Shadow Phantom is _____

Possible suspects

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

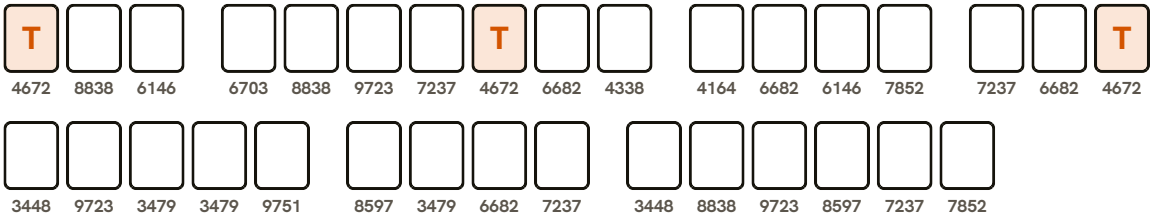
NAME	GHOSTLY POWER	HAUNTED ARTIFACT	GLOVE HABIT	HAIR EVIDENCE	SPECTRAL WEAKNESS
Peter Straub	Shadow Melter	Cursed Compass	Wears Right Glove	Silver Strands	Bright Sunlight
Dean Koontz	Ghostly Flight	Iron Chains	Wears Left Glove	Raven Black	Salt Powder
Anne Rice	Mind Echo	Bone Whistle	Wears Left Glove	Ashen Grey	Bright Sunlight
Neil Gaiman	Gloom Shroud	Phantom Lantern	Wears Left Glove	Raven Black	Salt Powder
Mary Shelley	Frost Chill	Phantom Lantern	Wears Left Glove	Raven Black	Salt Powder
Bram Stoker	Mind Echo	Bone Whistle	Wears Left Glove	Raven Black	Silver Bell
Ira Levin	Shadow Melter	Cursed Compass	Wears Left Glove	Ashen Grey	Salt Powder
Richard Matheson	Frost Chill	Cursed Compass	Wears Right Glove	Silver Strands	Silver Bell
Ray Bradbury	Ghostly Flight	Spectral Mirror	Wears Right Glove	Raven Black	Silver Bell
Victor Frankenstein	Shadow Melter	Cursed Compass	Wears Right Glove	Raven Black	Silver Bell
Ambrose Bierce	Mind Echo	Phantom Lantern	Wears Left Glove	Ashen Grey	Silver Bell
Robert Bloch	Gloom Shroud	Bone Whistle	Wears Right Glove	Raven Black	Salt Powder
Clive Barker	Frost Chill	Iron Chains	Wears Right Glove	Ashen Grey	Bright Sunlight
M R James	Frost Chill	Iron Chains	Wears Right Glove	Raven Black	Silver Bell
Arthur Doyle	Gloom Shroud	Bone Whistle	Wears Left Glove	Ashen Grey	Bright Sunlight
Wilkie Collins	Shadow Melter	Bone Whistle	Wears Left Glove	Raven Black	Bright Sunlight
R L Stine	Mind Echo	Cursed Compass	Wears Left Glove	Raven Black	Bright Sunlight
H P Lovecraft	Ghostly Flight	Cursed Compass	Wears Left Glove	Ashen Grey	Salt Powder
Shirley Jackson	Gloom Shroud	Bone Whistle	Wears Left Glove	Raven Black	Salt Powder
Stephen King	Frost Chill	Bone Whistle	Wears Left Glove	Ashen Grey	Silver Bell
Edgar Poe	Mind Echo	Bone Whistle	Wears Left Glove	Raven Black	Salt Powder

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CLUE 1 Addition

> The night curator tallied up all the ancient spellbooks recovered from dusty shelves to unlock the first clue.

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



1449 + 3223 = ☐ → T	2891 + 5947 = ☐ → H	4436 + 4161 = ☐ → I
4137 + 5586 = ☐ → A	1101 + 2378 = ☐ → R	3604 + 4248 = ☐ → S
1497 + 1951 = ☐ → C	2513 + 1825 = ☐ → M	2713 + 3969 = ☐ → O
1737 + 2427 = ☐ → D	4083 + 2620 = ☐ → P	3469 + 3768 = ☐ → N
2606 + 3540 = ☐ → E	5466 + 4285 = ☐ → Y	

Scratch space:

CLUE 2 Subtraction

Subtracting the extinguished candles from the total stock revealed a hidden encrypted note behind the altar.

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



7350 - 1719 = ☐ → T

9490 - 1583 = ☐ → O

11961 - 4181 = ☐ → R

4622 - 28 = ☐ → L

4923 - 315 = ☐ → M

10590 - 1777 = ☐ → P

8826 - 3973 = ☐ → V

8902 - 3978 = ☐ → G

10753 - 3303 = ☐ → D

10250 - 4469 = ☐ → F

4225 - 1326 = ☐ → H

9622 - 2220 = ☐ → W

5074 - 3628 = ☐ → A

6633 - 2866 = ☐ → E

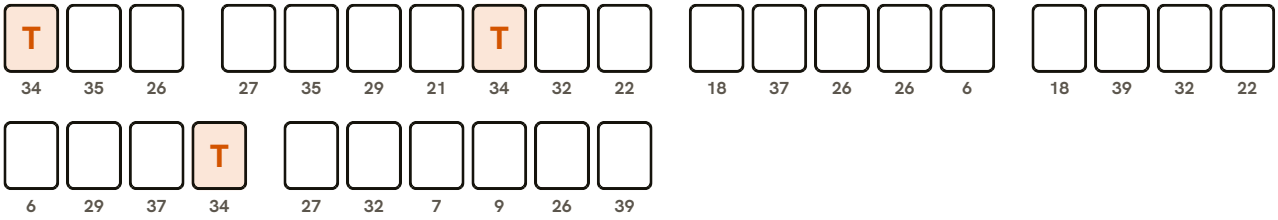
12085 - 4025 = ☐ → N

Scratch space:

CLUE 3 Fractions of a number

> The detective calculated a fractional portion of gargoyle statues pointing toward the phantom's secret hideout.

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



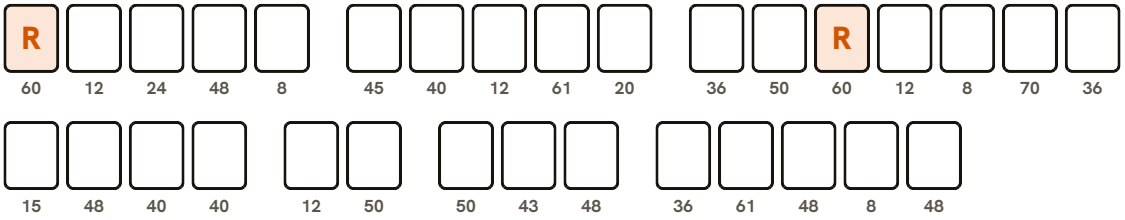
2/5 of 85 = ☐ → T	3/10 of 70 = ☐ → N	3/6 of 44 = ☐ → M
4/8 of 18 = ☐ → D	1/10 of 60 = ☐ → S	7/10 of 50 = ☐ → H
4/8 of 74 = ☐ → L	5/10 of 52 = ☐ → E	4/8 of 78 = ☐ → R
1/4 of 28 = ☐ → W	6/8 of 36 = ☐ → P	4/10 of 80 = ☐ → O
1/8 of 144 = ☐ → F	3/6 of 58 = ☐ → A	

Scratch space:

CLUE 4 Order of operations

Following the strict order of multi-step steps to unlatch the iron vault lock produced the key evidence.

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



48 + 3 × 4 = ☐ → R

8 + 2 × 2 = ☐ → A

12 × 5 - 10 = ☐ → T

7 × 6 - 6 = ☐ → S

7 × 3 - 1 = ☐ → K

7 × 7 - 4 = ☐ → B

6 × 6 - 28 = ☐ → N

7 × 10 - 22 = ☐ → E

9 × 10 - 20 = ☐ → D

8 × 8 - 21 = ☐ → H

29 + 4 × 8 = ☐ → C

7 × 6 - 18 = ☐ → V

7 × 7 - 9 = ☐ → L

7 × 6 - 27 = ☐ → F

Scratch space:

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

> Dividing the protective charms equally among search teams uncovered the final whisper 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:

6 ÷ 1 = ☐	24 ÷ 2 = ☐	32 ÷ 8 = ☐	35 ÷ 5 = ☐	88 ÷ 8 = ☐
40 ÷ 4 = ☐	1 ÷ 1 = ☐	36 ÷ 4 = ☐	3 ÷ 1 = ☐	48 ÷ 6 = ☐
10 ÷ 5 = ☐				

Step 2 - cross out the sentence with each answer:

1. The villain whispered echoes through the dark hall, then snapped the cursed compass shut.
2. The villain melted into the cold shadows, then snapped the cursed compass shut.
3. The villain chilled the room with a sudden frost, then blew a sharp tune on the bone whistle.
4. The villain shrouded the corridor in heavy gloom, then blew a sharp tune on the bone whistle.
5. The villain shrouded the corridor in heavy gloom, then swung the glowing phantom lantern.
6. The villain whispered echoes through the dark hall, then blew a sharp tune on the bone whistle.
7. The villain flew silently through the haunted attic, then blew a sharp tune on the bone whistle.
8. The villain whispered echoes through the dark hall, then gazed into a spooky spectral mirror.
9. The villain melted into the cold shadows, then swung the glowing phantom lantern.
10. The villain shrouded the corridor in heavy gloom, then rattled heavy iron chains.
11. The villain chilled the room with a sudden frost, then rattled heavy iron chains.
12. The villain chilled the room with a sudden frost, then swung the glowing phantom lantern.

TEACHER / PARENT

Answer Key

The Phantom of Blackwood Manor

Culprit: Neil Gaiman

Gloom Shroud · Phantom Lantern · Wears Left Glove · Raven Black · Salt Powder

Trail: Start 21 → Clue 1 18 → Clue 2 13 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE PHANTOM DOES NOT CARRY IRON CHAINS"

1449 + 3223 = 4672 (T) · 2891 + 5947 = 8838 (H) · 4436 + 4161 = 8597 (I) · 4137 + 5586 = 9723 (A) · 1101 + 2378 = 3479 (R) · 3604 + 4248 = 7852 (S) · 1497 + 1951 = 3448 (C) · 2513 + 1825 = 4338 (M) · 2713 + 3969 = 6682 (O) · 1737 + 2427 = 4164 (D) · 4083 + 2620 = 6703 (P) · 3469 + 3768 = 7237 (N) · 2606 + 3540 = 6146 (E) · 5466 + 4285 = 9751 (Y)

Clue 2 (Subtraction): "THE PHANTOM WORE A GLOVE ON THE LEFT HAND"

7350 - 1719 = 5631 (T) · 9490 - 1583 = 7907 (O) · 11961 - 4181 = 7780 (R) · 4622 - 28 = 4594 (L) · 4923 - 315 = 4608 (M) · 10590 - 1777 = 8813 (P) · 8826 - 3973 = 4853 (V) · 8902 - 3978 = 4924 (G) · 10753 - 3303 = 7450 (D) · 10250 - 4469 = 5781 (F) · 4225 - 1326 = 2899 (H) · 9622 - 2220 = 7402 (W) · 5074 - 3628 = 1446 (A) · 6633 - 2866 = 3767 (E) · 12085 - 4025 = 8060 (N)

Clue 3 (Fractions of a number): "THE PHANTOM FLEES FROM SALT POWDER"

2/5 of 85 = 34 (T) · 3/10 of 70 = 21 (N) · 3/6 of 44 = 22 (M) · 4/8 of 18 = 9 (D) · 1/10 of 60 = 6 (S) · 7/10 of 50 = 35 (H) · 4/8 of 74 = 37 (L) · 5/10 of 52 = 26 (E) · 4/8 of 78 = 39 (R) · 1/4 of 28 = 7 (W) · 6/8 of 36 = 27 (P) · 4/10 of 80 = 32 (O) · 1/8 of 144 = 18 (F) · 3/6 of 58 = 29 (A)

Clue 4 (Order of operations): "RAVEN BLACK STRANDS FELL AT THE SCENE"

48 + 3 × 4 = 60 (R) · 8 + 2 × 2 = 12 (A) · 12 × 5 - 10 = 50 (T) · 7 × 6 - 6 = 36 (S) · 7 × 3 - 1 = 20 (K) · 7 × 7 - 4 = 45 (B) · 6 × 6 - 28 = 8 (N) · 7 × 10 - 22 = 48 (E) · 9 × 10 - 20 = 70 (D) · 8 × 8 - 21 = 43 (H) · 29 + 4 × 8 = 61 (C) · 7 × 6 - 18 = 24 (V) · 7 × 7 - 9 = 40 (L) · 7 × 6 - 27 = 15 (F)

Clue 5 (Division facts (1-12)): surviving statement is box 5 → Neil Gaiman

6 ÷ 1 = 6 · 24 ÷ 2 = 12 · 32 ÷ 8 = 4 · 35 ÷ 5 = 7 · 88 ÷ 8 = 11 · 40 ÷ 4 = 10 · 1 ÷ 1 = 1 · 36 ÷ 4 = 9 · 3 ÷ 1 = 3 · 48 ÷ 6 = 8 · 10 ÷ 5 = 2