



The Haunted Chess Championship

Grade 4 math · Multiplication, Rounding, Addition, Subtraction, Division · Reading level grades 3-4

Detective: _____ **Date:** _____

At Spooky Rook Manor, the annual Halloween Chess Tournament was disrupted when a sneaky Ghost Grandmaster swiped the Golden King Trophy from the Trophy Keeper! Work through the clues to uncover 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 Ghost Grandmaster is _____

Possible suspects

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

NAME	CHESS MOVE	SPOOKY MAGIC	PLAYING HAND	WIG COLOR	SECRET WEAPON
Magnus	Pawn Rush	Cobweb Trap	Right Handed	Orange Hair	Flashlight Beam
Gukesh	Bishop Diagonal	Ghost Float	Right Handed	Green Hair	Flashlight Beam
Vidit	Rook Slide	Cobweb Trap	Left Handed	Green Hair	Silver Bell
Garry	Pawn Rush	Candy Shield	Left Handed	Green Hair	Garlic Spray
Nodirbek	Queen Sweep	Cobweb Trap	Right Handed	Green Hair	Silver Bell
Alireza	Rook Slide	Ghost Float	Right Handed	Purple Hair	Flashlight Beam
Wesley	Pawn Rush	Pumpkin Blast	Right Handed	Green Hair	Silver Bell
Jeffery	Queen Sweep	Pumpkin Blast	Left Handed	Orange Hair	Flashlight Beam
Sam	Bishop Diagonal	Pumpkin Blast	Right Handed	Orange Hair	Flashlight Beam
Ray	Pawn Rush	Cobweb Trap	Right Handed	Green Hair	Silver Bell
Ding	Pawn Rush	Cobweb Trap	Right Handed	Purple Hair	Silver Bell
Ian	Pawn Rush	Candy Shield	Right Handed	Purple Hair	Garlic Spray
Judit	Bishop Diagonal	Candy Shield	Right Handed	Orange Hair	Silver Bell
Fabiano	Rook Slide	Pumpkin Blast	Left Handed	Green Hair	Silver Bell
Beth	Queen Sweep	Cobweb Trap	Right Handed	Purple Hair	Silver Bell
Vishy	Pawn Rush	Candy Shield	Left Handed	Orange Hair	Silver Bell
Hans	Bishop Diagonal	Pumpkin Blast	Right Handed	Green Hair	Garlic Spray
Levon	Pawn Rush	Bat Swarm	Left Handed	Green Hair	Silver Bell
Hikaru	Rook Slide	Candy Shield	Left Handed	Orange Hair	Flashlight Beam
Leinier	Bishop Diagonal	Candy Shield	Right Handed	Green Hair	Silver Bell
Bobby	Rook Slide	Bat Swarm	Right Handed	Green Hair	Silver Bell

CLUE 1

Multiplication facts (1-12)

You inspect five equal rows of spooky wooden chess pawns lined up on the table.

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

T																T
4	81	56	110	5	28	28	2	5	96	66	21	56	44	96	21	4

						T						
99	44	56	2	9	2	4	44	12	2	121	30	

$1 \times 4 = \square \rightarrow \boxed{\text{T}}$

$3 \times 10 = \square \rightarrow \boxed{\text{M}}$

$9 \times 1 = \square \rightarrow \boxed{\text{B}}$

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

$2 \times 6 = \square \rightarrow \boxed{\text{W}}$

$7 \times 4 = \square \rightarrow \boxed{\text{L}}$

$1 \times 2 = \square \rightarrow \boxed{\text{A}}$

$8 \times 7 = \square \rightarrow \boxed{\text{E}}$

$11 \times 9 = \square \rightarrow \boxed{\text{U}}$

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

$11 \times 4 = \square \rightarrow \boxed{\text{S}}$

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

$3 \times 7 = \square \rightarrow \boxed{\text{O}}$

$10 \times 11 = \square \rightarrow \boxed{\text{V}}$

$8 \times 12 = \square \rightarrow \boxed{\text{N}}$

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

Scratch space:

CLUE 2
Rounding

The glowing phantom radar gives a fuzzy reading of magical energy that rounds to the nearest hundred.

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

W									W									
4300	300	3000	1700	30	200	200	200	9000	4300	3000	1100	30	430	430	700	170	30	

W													
4300	300	3000	1100	2000	300	370	1100	3000	1100	9000	1700	290	

Round 4,339 to the nearest hundred → **W**

Round 247 to the nearest hundred → **S**

Round 430 to the nearest ten → **M**

Round 1,749 to the nearest hundred → **N**

Round 9,440 to the nearest thousand → **A**

Round 2,280 to the nearest thousand → **R**

Round 287 to the nearest ten → **D**

Round 368 to the nearest ten → **G**

Round 284 to the nearest hundred → **I**

Round 3,428 to the nearest thousand → **T**

Round 692 to the nearest hundred → **O**

Round 168 to the nearest ten → **V**

Round 28 to the nearest ten → **E**

Round 1,105 to the nearest hundred → **H**

Scratch space:

CLUE 3 Addition

You gather the total count of plastic spider rings and candy corn dropped near the scene.

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

A																	
5431	5234	3268	5644	2048	2978	4435	4477	2978	5644	5644	5234	2262	9396	8077	8077	2978	2638

						A			
2262	7057	2978	2048	3268	5644	5644	5431	3268	2118

$1930 + 3501 = \square \rightarrow \boxed{\text{A}}$

$1159 + 1819 = \square \rightarrow \boxed{\text{E}}$

$1272 + 1996 = \square \rightarrow \boxed{\text{I}}$

$2953 + 2691 = \square \rightarrow \boxed{\text{L}}$

$1084 + 1178 = \square \rightarrow \boxed{\text{T}}$

$1247 + 871 = \square \rightarrow \boxed{\text{N}}$

$2985 + 1492 = \square \rightarrow \boxed{\text{B}}$

$3192 + 3865 = \square \rightarrow \boxed{\text{H}}$

$1650 + 3584 = \square \rightarrow \boxed{\text{S}}$

$5493 + 3903 = \square \rightarrow \boxed{\text{O}}$

$4151 + 3926 = \square \rightarrow \boxed{\text{P}}$

$2748 + 1687 = \square \rightarrow \boxed{\text{R}}$

$768 + 1280 = \square \rightarrow \boxed{\text{V}}$

$1605 + 1033 = \square \rightarrow \boxed{\text{D}}$

Scratch space:

CLUE 4

Subtraction

You calculate how many black rooks remain on the board after the phantom attacked.

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

F																		
1492	4651	2018	7575	3421	3404	2505	5394	5394	7575	3505	4207	6915	2505	4651	7575	8446	3505	5394
8392	7575	6915	3404	3505	8446	6530	6915	5394	3561	5394								

$4092 - 2600 = \square \rightarrow \boxed{\text{F}}$

$6502 - 3081 = \square \rightarrow \boxed{\text{D}}$

$8578 - 1003 = \square \rightarrow \boxed{\text{N}}$

$9033 - 3639 = \square \rightarrow \boxed{\text{E}}$

$10325 - 3795 = \square \rightarrow \boxed{\text{P}}$

$5026 - 1521 = \square \rightarrow \boxed{\text{H}}$

$4712 - 2207 = \square \rightarrow \boxed{\text{R}}$

$9875 - 1429 = \square \rightarrow \boxed{\text{T}}$

$6293 - 2889 = \square \rightarrow \boxed{\text{G}}$

$8776 - 384 = \square \rightarrow \boxed{\text{K}}$

$7488 - 2837 = \square \rightarrow \boxed{\text{O}}$

$5762 - 3744 = \square \rightarrow \boxed{\text{U}}$

$7537 - 622 = \square \rightarrow \boxed{\text{I}}$

$8422 - 4215 = \square \rightarrow \boxed{\text{A}}$

$5676 - 2115 = \square \rightarrow \boxed{\text{C}}$

Scratch space:

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

You split the captured pumpkin trophies equally among the remaining detective squads.

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:

$88 \div 8 = \boxed{}$

$4 \div 1 = \boxed{}$

$6 \div 3 = \boxed{}$

$27 \div 9 = \boxed{}$

$36 \div 3 = \boxed{}$

$90 \div 10 = \boxed{}$

$30 \div 3 = \boxed{}$

$42 \div 7 = \boxed{}$

$14 \div 2 = \boxed{}$

$80 \div 10 = \boxed{}$

$7 \div 7 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain hopped like a knight, then floated through walls.
2. The villain zipped on diagonals, then raised a candy shield.
3. The villain slid like a rook, then blasted glowing pumpkins.
4. The villain marched like a pawn, then trapped the board in webs.
5. The villain marched like a pawn, then blasted glowing pumpkins.
6. The villain swept across the board, then raised a candy shield.
7. The villain marched like a pawn, then floated through walls.
8. The villain swept across the board, then floated through walls.
9. The villain slid like a rook, then trapped the board in webs.
10. The villain hopped like a knight, then summoned spooky bats.
11. The villain swept across the board, then trapped the board in webs.
12. The villain marched like a pawn, then raised a candy shield.

Answer Key

The Haunted Chess Championship

Culprit: Wesley

Pawn Rush · Pumpkin Blast · Right Handed · Green Hair · Silver Bell

Trail: Start 21 → Clue 1 19 → Clue 2 13 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE VILLAIN DOES NOT USE A BAT SWARM"

$1 \times 4 = 4$ (T) · $3 \times 10 = 30$ (M) · $9 \times 1 = 9$ (B) · $9 \times 9 = 81$ (H) · $2 \times 6 = 12$ (W) · $7 \times 4 = 28$ (L) · $1 \times 2 = 2$ (A) · $8 \times 7 = 56$ (E) · $11 \times 9 = 99$ (U) · $1 \times 5 = 5$ (I) · $11 \times 4 = 44$ (S) · $6 \times 11 = 66$ (D) · $3 \times 7 = 21$ (O) · $10 \times 11 = 110$ (V) · $8 \times 12 = 96$ (N) · $11 \times 11 = 121$ (R)

Clue 2 (Rounding): "WITNESS SAW THEM MOVE WITH RIGHT HAND"

Round 4,339 to the nearest hundred = 4300 (W) · Round 247 to the nearest hundred = 200 (S) · Round 430 to the nearest ten = 430 (M) · Round 1,749 to the nearest hundred = 1700 (N) · Round 9,440 to the nearest thousand = 9000 (A) · Round 2,280 to the nearest thousand = 2000 (R) · Round 287 to the nearest ten = 290 (D) · Round 368 to the nearest ten = 370 (G) · Round 284 to the nearest hundred = 300 (I) · Round 3,428 to the nearest thousand = 3000 (T) · Round 692 to the nearest hundred = 700 (O) · Round 168 to the nearest ten = 170 (V) · Round 28 to the nearest ten = 30 (E) · Round 1,105 to the nearest hundred = 1100 (H)

Clue 3 (Addition): "A SILVER BELL STOPPED THE VILLAIN"

$1930 + 3501 = 5431$ (A) · $1159 + 1819 = 2978$ (E) · $1272 + 1996 = 3268$ (I) · $2953 + 2691 = 5644$ (L) · $1084 + 1178 = 2262$ (T) · $1247 + 871 = 2118$ (N) · $2985 + 1492 = 4477$ (B) · $3192 + 3865 = 7057$ (H) · $1650 + 3584 = 5234$ (S) · $5493 + 3903 = 9396$ (O) · $4151 + 3926 = 8077$ (P) · $2748 + 1687 = 4435$ (R) · $768 + 1280 = 2048$ (V) · $1605 + 1033 = 2638$ (D)

Clue 4 (Subtraction): "FOUND GREEN HAIR ON THE KNIGHT PIECE"

$4092 - 2600 = 1492$ (F) · $6502 - 3081 = 3421$ (D) · $8578 - 1003 = 7575$ (N) · $9033 - 3639 = 5394$ (E) · $10325 - 3795 = 6530$ (P) · $5026 - 1521 = 3505$ (H) · $4712 - 2207 = 2505$ (R) · $9875 - 1429 = 8446$ (T) · $6293 - 2889 = 3404$ (G) · $8776 - 384 = 8392$ (K) · $7488 - 2837 = 4651$ (O) · $5762 - 3744 = 2018$ (U) · $7537 - 622 = 6915$ (I) · $8422 - 4215 = 4207$ (A) · $5676 - 2115 = 3561$ (C)

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

$88 \div 8 = 11$ · $4 \div 1 = 4$ · $6 \div 3 = 2$ · $27 \div 9 = 3$ · $36 \div 3 = 12$ · $90 \div 10 = 9$ · $30 \div 3 = 10$ · $42 \div 7 = 6$ · $14 \div 2 = 7$ · $80 \div 10 = 8$ · $7 \div 7 = 1$