



The Hogwarts Harmony Heist

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

Detective: _____ Date: _____

A sneaky spellcaster has cast a Silencing Squeak Hex on the Choir Director right before the big Hogwarts Singing Contest! Now the director can only make silly squeaking sounds, and the choir cannot start. We must find the Phantom Crooner who cast the hex before the audience leaves!

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 Phantom Crooner is _____

Possible suspects

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

NAME	SINGING STYLE	MAGICAL INSTRUMENT	MICROPHONE GRIP	WIG COLOR	STAGE FRIGHT TRIGGER
Severus Snape	Yodeling Charms	Howler Bagpipes	Right Hand Grip	Neon Green Wig	Giant Ear Muffs
Ron Weasley	Dragon Metal	Mandrake Drums	Right Hand Grip	Spiky Pink Wig	Sour Lemon Drops
Dean Thomas	Yodeling Charms	Frog Choir Keyboard	Right Hand Grip	Spiky Pink Wig	Out of Tune Flute
Draco Malfoy	Dragon Metal	Howler Bagpipes	Left Hand Grip	Spiky Pink Wig	Out of Tune Flute
Gilderoy Lockhart	Dragon Metal	Howler Bagpipes	Right Hand Grip	Spiky Pink Wig	Out of Tune Flute
Minerva McGonagall	Dragon Metal	Howler Bagpipes	Left Hand Grip	Neon Green Wig	Out of Tune Flute
Albus Dumbledore	Yodeling Charms	Mandrake Drums	Right Hand Grip	Neon Green Wig	Out of Tune Flute
Seamus Finnigan	Merfolk Ballads	Frog Choir Keyboard	Right Hand Grip	Sparkly Gold Wig	Out of Tune Flute
Hermione Granger	Merfolk Ballads	Mandrake Drums	Right Hand Grip	Spiky Pink Wig	Out of Tune Flute
Oliver Wood	Rap Incantations	Mandrake Drums	Right Hand Grip	Sparkly Gold Wig	Out of Tune Flute
Cedric Diggory	Opera Screaming	Howler Bagpipes	Left Hand Grip	Spiky Pink Wig	Giant Ear Muffs
Neville Longbottom	Dragon Metal	Pixie Flute	Right Hand Grip	Neon Green Wig	Out of Tune Flute
Percy Weasley	Rap Incantations	Golden Harp	Right Hand Grip	Spiky Pink Wig	Out of Tune Flute
Rubeus Hagrid	Yodeling Charms	Frog Choir Keyboard	Left Hand Grip	Spiky Pink Wig	Out of Tune Flute
Pansy Parkinson	Opera Screaming	Golden Harp	Right Hand Grip	Sparkly Gold Wig	Giant Ear Muffs
Fleur Delacour	Rap Incantations	Mandrake Drums	Right Hand Grip	Spiky Pink Wig	Giant Ear Muffs
Fred Weasley	Rap Incantations	Mandrake Drums	Right Hand Grip	Spiky Pink Wig	Out of Tune Flute
Ginny Weasley	Rap Incantations	Pixie Flute	Right Hand Grip	Sparkly Gold Wig	Giant Ear Muffs
Cho Chang	Opera Screaming	Golden Harp	Left Hand Grip	Spiky Pink Wig	Sour Lemon Drops
Harry Potter	Opera Screaming	Mandrake Drums	Left Hand Grip	Neon Green Wig	Giant Ear Muffs
George Weasley	Dragon Metal	Mandrake Drums	Right Hand Grip	Neon Green Wig	Sour Lemon Drops

CLUE 1

The magical sound meter on stage only shows rounded numbers. Round these decibel readings to find the first clue.

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

The diagram shows two rows of boxes representing a multiplication problem. The top row has 15 boxes, and the bottom row has 12 boxes. The boxes are arranged in groups of three, with some boxes containing numbers and others containing the letter 'T'.

Top row (15 boxes):

- Box 1: T
- Box 2: 30
- Box 3: 300
- Box 4: 5000
- Box 5: 700
- Box 6: 50
- Box 7: 2900
- Box 8: 2900
- Box 9: 2000
- Box 10: 5000
- Box 11: 50
- Box 12: 230
- Box 13: 2900
- Box 14: 5000
- Box 15: 70

Bottom row (12 boxes):

- Box 1: 90
- Box 2: 70
- Box 3: 5000
- Box 4: 3700
- Box 5: 370
- Box 6: 5000
- Box 7: 1700
- Box 8: 170
- Box 9: 2900
- Box 10: 3700
- Box 11: 50
- Box 12: 230

Round 27 to the nearest ten $\rightarrow$ **T**

Round 4,716 to the nearest thousand → **E**

Round 307 to the nearest hundred $\rightarrow$ **H**

Round 670 to the nearest hundred → **C**

Round 69 to the nearest ten $\rightarrow$ **S**

Round 3,684 to the nearest hundred $\rightarrow$ **A**

Round 174 to the nearest ten $\rightarrow$ **B**

Round 234 to the nearest ten $\rightarrow$ **D**

Round 46 to the nearest ten $\rightarrow$ **R**

Round 2,339 to the nearest thousand $\rightarrow$ **N**

Round 1,722 to the nearest hundred → **Y**

Round 2,864 to the nearest hundred $\rightarrow$

Round 368 to the nearest ten $\rightarrow$ **K**

Round 90 to the nearest ten $\rightarrow$ **U**

Scratch space:

CLUE 2 Addition

Let us add up the enchanted music notes left behind by the choir singers to uncover the next lead.

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

T 2890	2311	6871	8933	8203	6050	7763	6871	8949	7763	8949	8203	6740	6740	6871	5721	T 2890	2311	6871
5038	8203	9520	7658	8203	T 2890	2311	T 2890	2311	6871	8949	8203	7763	2311	T 2890	2311	4487	6050	5721

$1658 + 1232 = \square \rightarrow \text{T}$	$3718 + 2332 = \square \rightarrow \text{N}$	$1793 + 3928 = \square \rightarrow \text{D}$
$2742 + 3998 = \square \rightarrow \text{P}$	$3096 + 1942 = \square \rightarrow \text{M}$	$3524 + 5996 = \square \rightarrow \text{C}$
$4207 + 4742 = \square \rightarrow \text{R}$	$5608 + 2595 = \square \rightarrow \text{I}$	$3895 + 3868 = \square \rightarrow \text{G}$
$2456 + 4415 = \square \rightarrow \text{E}$	$5788 + 3145 = \square \rightarrow \text{S}$	$1702 + 2785 = \square \rightarrow \text{A}$
$977 + 1334 = \square \rightarrow \text{H}$	$5146 + 2512 = \square \rightarrow \text{W}$	

Scratch space:

CLUE 3

Subtraction

Subtract the broken harp strings from the total pile to see how many were ruined by the spell.

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

A															
8656	2274	4223	7602	5293	4223	7818	5293	7602	2274	5007	7818	8979	7602	5293	5007

	A										A		A		
8881	8656	6484	5007	7654	5293	8783	5007	8881	5244	7602	2274	8656	1349	8656	3779

$9904 - 1248 = \square \rightarrow \boxed{\text{A}}$

$8632 - 978 = \square \rightarrow \boxed{\text{S}}$

$12361 - 4543 = \square \rightarrow \boxed{\text{F}}$

$12048 - 3069 = \square \rightarrow \boxed{\text{L}}$

$5010 - 3661 = \square \rightarrow \boxed{\text{W}}$

$5944 - 2165 = \square \rightarrow \boxed{\text{Y}}$

$9596 - 3112 = \square \rightarrow \boxed{\text{K}}$

$8920 - 137 = \square \rightarrow \boxed{\text{H}}$

$8412 - 4189 = \square \rightarrow \boxed{\text{O}}$

$10978 - 2097 = \square \rightarrow \boxed{\text{M}}$

$8479 - 3235 = \square \rightarrow \boxed{\text{R}}$

$7621 - 2328 = \square \rightarrow \boxed{\text{T}}$

$7932 - 2925 = \square \rightarrow \boxed{\text{E}}$

$5431 - 3157 = \square \rightarrow \boxed{\text{N}}$

$7955 - 353 = \square \rightarrow \boxed{\text{U}}$

Scratch space:

CLUE 4
Multiplication facts (1-12)

The choir stands have equal rows of singing frogs. Multiply the rows to count the magical singers.

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

A														A	
72	21	99	3	40	66	99	3	108	40	132	3	20	132	72	21

11	22	49	8	3	108	8	35	22	33	32	22	21	21	3	108	20

32	42	42	28

$9 \times 8 = \square \rightarrow$ A	$12 \times 9 = \square \rightarrow$ N	$3 \times 1 = \square \rightarrow$ I
$1 \times 11 = \square \rightarrow$ L	$11 \times 2 = \square \rightarrow$ E	$8 \times 4 = \square \rightarrow$ R
$4 \times 5 = \square \rightarrow$ G	$7 \times 7 = \square \rightarrow$ F	$5 \times 8 = \square \rightarrow$ K
$12 \times 11 = \square \rightarrow$ W	$7 \times 6 = \square \rightarrow$ O	$7 \times 3 = \square \rightarrow$ S
$3 \times 11 = \square \rightarrow$ D	$8 \times 1 = \square \rightarrow$ T	$6 \times 11 = \square \rightarrow$ Y
$4 \times 7 = \square \rightarrow$ M	$7 \times 5 = \square \rightarrow$ H	$9 \times 11 = \square \rightarrow$ P

Scratch space:

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

We must divide the golden throat potions equally among the soloists to get 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:

$144 \div 12 = \boxed{}$

$16 \div 2 = \boxed{}$

$5 \div 5 = \boxed{}$

$80 \div 8 = \boxed{}$

$11 \div 1 = \boxed{}$

$36 \div 6 = \boxed{}$

$24 \div 6 = \boxed{}$

$9 \div 1 = \boxed{}$

$40 \div 8 = \boxed{}$

$6 \div 3 = \boxed{}$

$33 \div 11 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain rapped ancient incantations, then bashed the loud Mandrake Drums.
2. The villain rapped ancient incantations, then squeezed the Howler Bagpipes loudly.
3. The villain sang deep merfolk ballads, then plucked the Golden Harp to daze the crowd.
4. The villain rapped ancient incantations, then clattered keys on the Frog Choir Keyboard.
5. The villain yodeled magical charms, then blew a shrill Pixie Flute.
6. The villain rapped ancient incantations, then blew a shrill Pixie Flute.
7. The villain sang deep merfolk ballads, then bashed the loud Mandrake Drums.
8. The villain roared harsh dragon metal music, then squeezed the Howler Bagpipes loudly.
9. The villain roared harsh dragon metal music, then blew a shrill Pixie Flute.
10. The villain shrieked loud opera notes, then plucked the Golden Harp to daze the crowd.
11. The villain roared harsh dragon metal music, then clattered keys on the Frog Choir Keyboard.
12. The villain rapped ancient incantations, then plucked the Golden Harp to daze the crowd.

Answer Key

The Hogwarts Harmony Heist

Culprit: Hermione Granger

Merfolk Ballads · Mandrake Drums · Right Hand Grip · Spiky Pink Wig · Out of Tune Flute

Trail: Start 21 → Clue 1 18 → Clue 2 13 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE CROONER DOES NOT USE A KEYBOARD"

Round 27 to the nearest ten = 30 (T) · Round 4,716 to the nearest thousand = 5000 (E) · Round 307 to the nearest hundred = 300 (H) · Round 670 to the nearest hundred = 700 (C) · Round 69 to the nearest ten = 70 (S) · Round 3,684 to the nearest hundred = 3700 (A) · Round 174 to the nearest ten = 170 (B) · Round 234 to the nearest ten = 230 (D) · Round 46 to the nearest ten = 50 (R) · Round 2,339 to the nearest thousand = 2000 (N) · Round 1,722 to the nearest hundred = 1700 (Y) · Round 2,864 to the nearest hundred = 2900 (O) · Round 368 to the nearest ten = 370 (K) · Round 90 to the nearest ten = 90 (U)

Clue 2 (Addition): "THE SINGER GRIPPED THE MIC WITH THE RIGHT HAND"

$1658 + 1232 = 2890$ (T) · $3718 + 2332 = 6050$ (N) · $1793 + 3928 = 5721$ (D) · $2742 + 3998 = 6740$ (P) · $3096 + 1942 = 5038$ (M) · $3524 + 5996 = 9520$ (C) · $4207 + 4742 = 8949$ (R) · $5608 + 2595 = 8203$ (I) · $3895 + 3868 = 7763$ (G) · $2456 + 4415 = 6871$ (E) · $5788 + 3145 = 8933$ (S) · $1702 + 2785 = 4487$ (A) · $977 + 1334 = 2311$ (H) · $5146 + 2512 = 7658$ (W)

Clue 3 (Subtraction): "AN OUT OF TUNE FLUTE MAKES THEM RUN AWAY"

$9904 - 1248 = 8656$ (A) · $8632 - 978 = 7654$ (S) · $12361 - 4543 = 7818$ (F) · $12048 - 3069 = 8979$ (L) · $5010 - 3661 = 1349$ (W) · $5944 - 2165 = 3779$ (Y) · $9596 - 3112 = 6484$ (K) · $8920 - 137 = 8783$ (H) · $8412 - 4189 = 4223$ (O) · $10978 - 2097 = 8881$ (M) · $8479 - 3235 = 5244$ (R) · $7621 - 2328 = 5293$ (T) · $7932 - 2925 = 5007$ (E) · $5431 - 3157 = 2274$ (N) · $7955 - 353 = 7602$ (U)

Clue 4 (Multiplication facts (1-12)): "A SPIKY PINK WIG WAS LEFT IN THE DRESSING ROOM"

$9 \times 8 = 72$ (A) · $12 \times 9 = 108$ (N) · $3 \times 1 = 3$ (I) · $1 \times 11 = 11$ (L) · $11 \times 2 = 22$ (E) · $8 \times 4 = 32$ (R) · $4 \times 5 = 20$ (G) · $7 \times 7 = 49$ (F) · $5 \times 8 = 40$ (K) · $12 \times 11 = 132$ (W) · $7 \times 6 = 42$ (O) · $7 \times 3 = 21$ (S) · $3 \times 11 = 33$ (D) · $8 \times 1 = 8$ (T) · $6 \times 11 = 66$ (Y) · $4 \times 7 = 28$ (M) · $7 \times 5 = 35$ (H) · $9 \times 11 = 99$ (P)

Clue 5 (Division facts (1-12)): surviving statement is box 7 → Hermione Granger

$144 \div 12 = 12$ · $16 \div 2 = 8$ · $5 \div 5 = 1$ · $80 \div 8 = 10$ · $11 \div 1 = 11$ · $36 \div 6 = 6$ · $24 \div 6 = 4$ · $9 \div 1 = 9$ · $40 \div 8 = 5$ · $6 \div 3 = 2$ · $33 \div 11 = 3$