The Mystery of the Missing Microphone

Grade 3 math · Rounding, Addition, Subtraction, Multiplication, Division · Reading level grades 1-2

Detective: _____ **Date:** _____

The Golden Microphone is gone! The star soloist cannot sing tonight. We must find the mic stealer before the big concert starts!

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 mic stealer is _____

Possible suspects

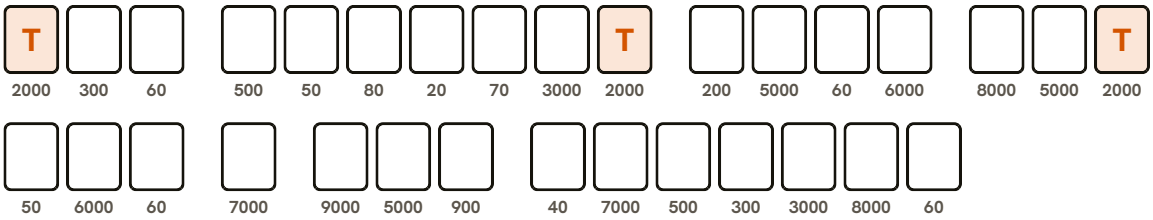
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	SINGING STYLE	STAGE PROP	MIC HAND	HAIR STYLE	WEAKNESS
Bruno	opera blast	laser glove	holds mic right handed	blue mohawk	seeing a loud fan clap
Freddie	rap rhyme	sparkler wand	holds mic right handed	neon pink hair	seeing a loud fan clap
Beyonce	jazz hum	disco ball	holds mic right handed	neon pink hair	hearing a squeaky violin
Pink	pop whistle	disco ball	holds mic left handed	blue mohawk	cold water throat lozenge
Usher	jazz hum	sparkler wand	holds mic right handed	glitter curls	seeing a loud fan clap
Harry	jazz hum	laser glove	holds mic left handed	neon pink hair	cold water throat lozenge
Kelly	rock scream	laser glove	holds mic left handed	neon pink hair	cold water throat lozenge
Ariana	opera blast	bubble blaster	holds mic left handed	neon pink hair	cold water throat lozenge
Elvis	rock scream	laser glove	holds mic right handed	glitter curls	cold water throat lozenge
Zayn	rap rhyme	fog machine	holds mic left handed	blue mohawk	cold water throat lozenge
Lizzo	jazz hum	sparkler wand	holds mic left handed	blue mohawk	cold water throat lozenge
Dolly	rap rhyme	fog machine	holds mic left handed	neon pink hair	cold water throat lozenge
Shakira	rock scream	disco ball	holds mic left handed	blue mohawk	cold water throat lozenge
Adele	rap rhyme	laser glove	holds mic left handed	neon pink hair	cold water throat lozenge
Billie	rap rhyme	laser glove	holds mic left handed	neon pink hair	seeing a loud fan clap
Miley	rap rhyme	fog machine	holds mic right handed	blue mohawk	seeing a loud fan clap
Selena	rap rhyme	bubble blaster	holds mic left handed	glitter curls	hearing a squeaky violin
Ed	opera blast	disco ball	holds mic right handed	neon pink hair	seeing a loud fan clap
Katy	opera blast	laser glove	holds mic right handed	neon pink hair	cold water throat lozenge
Olivia	jazz hum	fog machine	holds mic left handed	glitter curls	hearing a squeaky violin
Shawn	pop whistle	disco ball	holds mic left handed	neon pink hair	seeing a loud fan clap

CLUE 1 Rounding

A digital tuner shows the sound wave level. It only shows rounded numbers. Round the song levels to the nearest ten to boot up the machine.

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



Round 2,103 to the nearest thousand ☐ → T

Round 267 to the nearest hundred ☐ → H

Round 5,298 to the nearest thousand ☐ → O

Round 7,483 to the nearest thousand ☐ → A

Round 51 to the nearest ten ☐ → U

Round 64 to the nearest ten ☐ → E

Round 5,724 to the nearest thousand ☐ → S

Round 946 to the nearest hundred ☐ → G

Round 72 to the nearest ten ☐ → R

Round 2,720 to the nearest thousand ☐ → I

Round 162 to the nearest hundred ☐ → D

Round 36 to the nearest ten ☐ → M

Round 17 to the nearest ten ☐ → P

Round 9,477 to the nearest thousand ☐ → F

Round 82 to the nearest ten ☐ → L

Round 536 to the nearest hundred ☐ → C

Round 8,398 to the nearest thousand ☐ → N

Scratch space:

CLUE 2 Addition

We need to count the music sheets. Add the stacks of sheets together to see who practiced today.

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

420 + 447 = ☐ → T

429 + 238 = ☐ → V

302 + 564 = ☐ → I

207 + 288 = ☐ → A

76 + 171 = ☐ → L

169 + 143 = ☐ → D

160 + 93 = ☐ → G

224 + 181 = ☐ → F

262 + 200 = ☐ → O

142 + 159 = ☐ → N

131 + 247 = ☐ → S

101 + 105 = ☐ → H

237 + 367 = ☐ → R

158 + 76 = ☐ → E

Scratch space:

CLUE 3 Subtraction

Some guitar picks are missing from the case. Subtract the broken picks to find how many we can use.

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

733 - 304 = ☐ → T

656 - 130 = ☐ → W

615 - 284 = ☐ → E

263 - 32 = ☐ → N

1029 - 172 = ☐ → H

579 - 71 = ☐ → R

437 - 152 = ☐ → Z

1022 - 213 = ☐ → S

1084 - 363 = ☐ → Y

809 - 390 = ☐ → A

1002 - 148 = ☐ → L

632 - 160 = ☐ → O

897 - 89 = ☐ → G

834 - 7 = ☐ → D

606 - 247 = ☐ → I

816 - 347 = ☐ → C

Scratch space:

CLUE 4 Multiplication facts (1-12)

The stage lights are set up in equal rows. Multiply the rows of lights to turn them on and light up the floor.

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

W																			
40	90	55	1	9	96	45	96	90	1	96	24	33	96	48	7	121	33	110	

1	96	6	7	90	99	6	121	20	90

5 × 8 = ☐ → W

8 × 6 = ☐ → K

10 × 2 = ☐ → G

5 × 11 = ☐ → F

3 × 11 = ☐ → I

10 × 11 = ☐ → R

9 × 10 = ☐ → E

6 × 4 = ☐ → P

7 × 1 = ☐ → H

11 × 9 = ☐ → S

3 × 2 = ☐ → T

5 × 9 = ☐ → D

11 × 11 = ☐ → A

12 × 8 = ☐ → N

9 × 1 = ☐ → U

1 × 1 = ☐ → O

Scratch space:

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

> We have many microphones to share. Divide the mics among the singers so everyone gets an equal share.

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:

16 ÷ 2 = ☐	108 ÷ 12 = ☐	8 ÷ 4 = ☐	7 ÷ 1 = ☐	20 ÷ 4 = ☐
90 ÷ 9 = ☐	11 ÷ 11 = ☐	15 ÷ 5 = ☐	6 ÷ 1 = ☐	72 ÷ 6 = ☐
24 ÷ 6 = ☐				

Step 2 - cross out the sentence with each answer:

1. The villain sings a smooth jazz hum, then shoots a wet bubble blaster.
2. The villain sings a smooth jazz hum, then shines a bright laser glove.
3. The villain lets out a loud opera blast, then turns on a thick fog machine.
4. The villain lets out a loud opera blast, then shines a bright laser glove.
5. The villain makes a high pop whistle sound, then shines a bright laser glove.
6. The villain gives a loud rock scream, then shoots a wet bubble blaster.
7. The villain makes a high pop whistle sound, then waves a glowing sparkler wand.
8. The villain spits a fast rap rhyme, then shines a bright laser glove.
9. The villain lets out a loud opera blast, then shoots a wet bubble blaster.
10. The villain sings a smooth jazz hum, then drops a shiny disco ball.
11. The villain gives a loud rock scream, then shines a bright laser glove.
12. The villain spits a fast rap rhyme, then waves a glowing sparkler wand.

TEACHER / PARENT

Answer Key

The Mystery of the Missing Microphone

Culprit: Kelly

rock scream · laser glove · holds mic left handed · neon pink hair · cold water throat lozenge

Trail: Start 21 → Clue 1 17 → Clue 2 10 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE CULPRIT DOES NOT USE A FOG MACHINE"

Round 2,103 to the nearest thousand = 2000 (T) · Round 267 to the nearest hundred = 300 (H) · Round 5,298 to the nearest thousand = 5000 (O) · Round 7,483 to the nearest thousand = 7000 (A) · Round 51 to the nearest ten = 50 (U) · Round 64 to the nearest ten = 60 (E) · Round 5,724 to the nearest thousand = 6000 (S) · Round 946 to the nearest hundred = 900 (G) · Round 72 to the nearest ten = 70 (R) · Round 2,720 to the nearest thousand = 3000 (I) · Round 162 to the nearest hundred = 200 (D) · Round 36 to the nearest ten = 40 (M) · Round 17 to the nearest ten = 20 (P) · Round 9,477 to the nearest thousand = 9000 (F) · Round 82 to the nearest ten = 80 (L) · Round 536 to the nearest hundred = 500 (C) · Round 8,398 to the nearest thousand = 8000 (N)

Clue 2 (Addition): "THE SINGER LEFT A LEFT HANDED GLOVE"

420 + 447 = 867 (T) · 429 + 238 = 667 (V) · 302 + 564 = 866 (I) · 207 + 288 = 495 (A) · 76 + 171 = 247 (L) · 169 + 143 = 312 (D) · 160 + 93 = 253 (G) · 224 + 181 = 405 (F) · 262 + 200 = 462 (O) · 142 + 159 = 301 (N) · 131 + 247 = 378 (S) · 101 + 105 = 206 (H) · 237 + 367 = 604 (R) · 158 + 76 = 234 (E)

Clue 3 (Subtraction): "THEY NEED A COLD WATER LOZENGE TO SING"

733 - 304 = 429 (T) · 656 - 130 = 526 (W) · 615 - 284 = 331 (E) · 263 - 32 = 231 (N) · 1029 - 172 = 857 (H) · 579 - 71 = 508 (R) · 437 - 152 = 285 (Z) · 1022 - 213 = 809 (S) · 1084 - 363 = 721 (Y) · 809 - 390 = 419 (A) · 1002 - 148 = 854 (L) · 632 - 160 = 472 (O) · 897 - 89 = 808 (G) · 834 - 7 = 827 (D) · 606 - 247 = 359 (I) · 816 - 347 = 469 (C)

Clue 4 (Multiplication facts (1-12)): "WE FOUND NEON PINK HAIR ON THE STAGE"

5 × 8 = 40 (W) · 8 × 6 = 48 (K) · 10 × 2 = 20 (G) · 5 × 11 = 55 (F) · 3 × 11 = 33 (I) · 10 × 11 = 110 (R) · 9 × 10 = 90 (E) · 6 × 4 = 24 (P) · 7 × 1 = 7 (H) · 11 × 9 = 99 (S) · 3 × 2 = 6 (T) · 5 × 9 = 45 (D) · 11 × 11 = 121 (A) · 12 × 8 = 96 (N) · 9 × 1 = 9 (U) · 1 × 1 = 1 (O)

Clue 5 (Division facts (1-12)): surviving statement is box 11 → Kelly

16 ÷ 2 = 8 · 108 ÷ 12 = 9 · 8 ÷ 4 = 2 · 7 ÷ 1 = 7 · 20 ÷ 4 = 5 · 90 ÷ 9 = 10 · 11 ÷ 11 = 1 · 15 ÷ 5 = 3 · 6 ÷ 1 = 6 · 72 ÷ 6 = 12 · 24 ÷ 6 = 4