



The Eras Tour Mystery

Grade 2 math · Place value, Addition, Subtraction, Skip counting, Missing addends · Reading level grades 3-4

Detective: _____ Date: _____

Someone switched the setlist right before showtime at the Midnight Pop Arena! Use your math detective skills to gather clues, track down the sneaky concert crasher, and save the biggest night of the tour.

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 concert crasher is _____

Possible suspects

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

NAME	INSTRUMENT	STAGE ACCESSORY	MICROPHONE HAND	HAIRSTYLE	STAGE HAZARD
Gigi	Grand Piano	Snake Ring	Left Handed	Blonde Bangs	Mic Feedback
Andrea	Acoustic Guitar	Silver Microphone	Left Handed	Red Ponytail	Cat Nibbles
Harry	Keytar	Silver Microphone	Left Handed	Blonde Bangs	Mic Feedback
Este	Acoustic Guitar	Feather Boa	Left Handed	Blonde Bangs	Mic Feedback
Blake	Grand Piano	Silver Microphone	Right Handed	Red Ponytail	Cat Nibbles
Austin	Keytar	Snake Ring	Left Handed	Red Ponytail	Cat Nibbles
Aaron	Sequined Jacket	Snake Ring	Right Handed	Red Ponytail	Cat Nibbles
Lana	Golden Megaphone	Snake Ring	Right Handed	Brunette Curls	Cat Nibbles
Selena	Keytar	Snake Ring	Right Handed	Blonde Bangs	Mic Feedback
Max	Keytar	Feather Boa	Right Handed	Red Ponytail	Mic Feedback
Alana	Acoustic Guitar	Snake Ring	Left Handed	Blonde Bangs	Mic Feedback
Karlie	Keytar	Feather Boa	Right Handed	Brunette Curls	Mic Feedback
Taylor	Acoustic Guitar	Feather Boa	Right Handed	Brunette Curls	Mic Feedback
Jack	Grand Piano	Sparkly Boots	Right Handed	Red Ponytail	Cat Nibbles
Abigail	Sequined Jacket	Silver Microphone	Right Handed	Red Ponytail	Mic Feedback
Ryan	Keytar	Snake Ring	Left Handed	Red Ponytail	Camera Flash
Paul	Grand Piano	Snake Ring	Left Handed	Blonde Bangs	Camera Flash
Gracie	Golden Megaphone	Heart Sunglasses	Right Handed	Red Ponytail	Cat Nibbles
Amos	Grand Piano	Sparkly Boots	Right Handed	Brunette Curls	Mic Feedback
Danielle	Acoustic Guitar	Silver Microphone	Right Handed	Red Ponytail	Cat Nibbles
Phoebe	Acoustic Guitar	Snake Ring	Right Handed	Blonde Bangs	Mic Feedback

CLUE 1

Place value

We found a VIP ticket stub left on stage, but only the digit in the tens place is clearly visible.

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

T														
13	35	76	43	84	47	47	41	84	87	35	41	26	87	70
										T				
26	49	41	56	97	47	71	62	70	70	13	26			

What number has 1 ten and 3 ones?

→

T

What number has 7 tens and 0 ones?

→

O

What number has 6 tens and 2 ones?

→

B

What number has 5 tens and 6 ones?

→

R

What number has 4 tens and 7 ones?

→

L

What number has 4 tens and 3 ones?

→

V

What number has 9 tens and 7 ones?

→

K

What number has 7 tens and 6 ones?

→

E

What number has 8 tens and 4 ones?

→

I

What number has 7 tens and 1 one?

→

Y

What number has 4 tens and 9 ones?

→

P

What number has 4 tens and 1 one?

→

A

What number has 2 tens and 6 ones?

→

S

What number has 3 tens and 5 ones?

→

H

What number has 8 tens and 7 ones?

→

N

Scratch space:

CLUE 2 **Addition**

The backstage crew gathered up all the extra tour t-shirts and added them together.

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

S		S						S											
68	31	68	36	94	66	87	46	68	60	46	77	76	87	76	57	81	34	94	34

$29 + 39 = \square \rightarrow \boxed{\text{S}}$

$18 + 18 = \square \rightarrow \boxed{\text{P}}$

$21 + 10 = \square \rightarrow \boxed{\text{U}}$

$19 + 41 = \square \rightarrow \boxed{\text{R}}$

$13 + 33 = \square \rightarrow \boxed{\text{I}}$

$43 + 33 = \square \rightarrow \boxed{\text{H}}$

$21 + 13 = \square \rightarrow \boxed{\text{D}}$

$36 + 41 = \square \rightarrow \boxed{\text{G}}$

$33 + 54 = \square \rightarrow \boxed{\text{T}}$

$38 + 28 = \square \rightarrow \boxed{\text{C}}$

$34 + 60 = \square \rightarrow \boxed{\text{E}}$

$17 + 40 = \square \rightarrow \boxed{\text{A}}$

$37 + 44 = \square \rightarrow \boxed{\text{N}}$

Scratch space:

CLUE 3

Subtraction

A box of sparkly guitar picks was opened and several went missing before showtime.

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

S		S								S									
81	88	81	39	45	12	14	40	88	89	81	66	40	18	44	12	78	14		

						S
89	50	60	60	83	45	81

$83 - 2 = \square \rightarrow \boxed{\text{S}}$

$57 - 17 = \square \rightarrow \boxed{\text{R}}$

$105 - 16 = \square \rightarrow \boxed{\text{N}}$

$57 - 18 = \square \rightarrow \boxed{\text{P}}$

$66 - 21 = \square \rightarrow \boxed{\text{E}}$

$64 - 4 = \square \rightarrow \boxed{\text{B}}$

$42 - 28 = \square \rightarrow \boxed{\text{T}}$

$46 - 28 = \square \rightarrow \boxed{\text{O}}$

$36 - 24 = \square \rightarrow \boxed{\text{C}}$

$54 - 10 = \square \rightarrow \boxed{\text{M}}$

$100 - 22 = \square \rightarrow \boxed{\text{A}}$

$56 - 6 = \square \rightarrow \boxed{\text{I}}$

$71 - 5 = \square \rightarrow \boxed{\text{F}}$

$111 - 23 = \square \rightarrow \boxed{\text{U}}$

$100 - 17 = \square \rightarrow \boxed{\text{L}}$

Scratch space:

CLUE 4 Skip counting

The stage manager counted up the colorful lights lining the walkway in equal groups.

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

F																	
60	30	24	10	16	9	20	16	120	30	10	36	90	40	15	22	40	90

90	26	20	33	90	40	6	20

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, __, 70, 80 → **F**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, __, 33, 36 → **O**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, __, 39, 42 → **Y**

Skip-count by 3s. Fill the blank: 3, 6, __, 12, 15 → **R**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, __, 26, 28 → **U**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, __, 18, 20 → **D**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, __, 45, 50 → **A**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, __, 24, 26 → **L**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, __, 22, 24 → **E**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, __, 28, 30 → **H**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, __, 130, 140 → **P**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, __, 18, 21 → **I**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, __, 36, 39 → **S**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, __, 100, 110 → **T**

Skip-count by 2s. Fill the blank: 2, 4, __, 8, 10 → **G**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, __, 12, 14 → **N**

Scratch space:

CLUE 5**Missing addends - the last clue**

The band needed a full rack of microphone stands, but some spots were empty.

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:

$5 + \underline{\quad} = 14$

$2 + \underline{\quad} = 12$

$1 + \underline{\quad} = 13$

$9 + \underline{\quad} = 17$

$2 + \underline{\quad} = 8$

$4 + \underline{\quad} = 11$

$10 + \underline{\quad} = 13$

$4 + \underline{\quad} = 5$

$1 + \underline{\quad} = 12$

$5 + \underline{\quad} = 10$

$5 + \underline{\quad} = 9$

Step 2 - cross out the sentence with each answer:

1. The villain jammed out on a synth keytar, then flashed heart sunglasses.
2. The villain danced around in a sequined jacket, then showed off a snake ring.
3. The villain played a melody on grand piano, then twirled a purple feather boa.
4. The villain jammed out on a synth keytar, then strutted in sparkly boots.
5. The villain jammed out on a synth keytar, then showed off a snake ring.
6. The villain played a melody on grand piano, then flashed heart sunglasses.
7. The villain jammed out on a synth keytar, then twirled a purple feather boa.
8. The villain strummed an acoustic guitar, then flashed heart sunglasses.
9. The villain played a melody on grand piano, then sang into a silver microphone.
10. The villain strummed an acoustic guitar, then sang into a silver microphone.
11. The villain danced around in a sequined jacket, then sang into a silver microphone.
12. The villain shouted through a golden megaphone, then flashed heart sunglasses.

Answer Key

The Eras Tour Mystery

Culprit: Aaron

Sequined Jacket · Snake Ring · Right Handed · Red Ponytail · Cat Nibbles

Trail: Start 21 → Clue 1 19 → Clue 2 11 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE VILLAIN HAS NO SPARKLY BOOTS"

What number has 1 ten and 3 ones? = 13 (T) · What number has 7 tens and 0 ones? = 70 (O) · What number has 6 tens and 2 ones? = 62 (B) · What number has 5 tens and 6 ones? = 56 (R) · What number has 4 tens and 7 ones? = 47 (L) · What number has 4 tens and 3 ones? = 43 (V) · What number has 9 tens and 7 ones? = 97 (K) · What number has 7 tens and 6 ones? = 76 (E) · What number has 8 tens and 4 ones? = 84 (I) · What number has 7 tens and 1 one? = 71 (Y) · What number has 4 tens and 9 ones? = 49 (P) · What number has 4 tens and 1 one? = 41 (A) · What number has 2 tens and 6 ones? = 26 (S) · What number has 3 tens and 5 ones? = 35 (H) · What number has 8 tens and 7 ones? = 87 (N)

Clue 2 (Addition): "SUSPECT IS RIGHT HANDED"

$29 + 39 = 68$ (S) · $18 + 18 = 36$ (P) · $21 + 10 = 31$ (U) · $19 + 41 = 60$ (R) · $13 + 33 = 46$ (I) · $43 + 33 = 76$ (H) · $21 + 13 = 34$ (D) · $36 + 41 = 77$ (G) · $33 + 54 = 87$ (T) · $38 + 28 = 66$ (C) · $34 + 60 = 94$ (E) · $17 + 40 = 57$ (A) · $37 + 44 = 81$ (N)

Clue 3 (Subtraction): "SUSPECT RUNS FROM CAT NIBBLES"

$83 - 2 = 81$ (S) · $57 - 17 = 40$ (R) · $105 - 16 = 89$ (N) · $57 - 18 = 39$ (P) · $66 - 21 = 45$ (E) · $64 - 4 = 60$ (B) · $42 - 28 = 14$ (T) · $46 - 28 = 18$ (O) · $36 - 24 = 12$ (C) · $54 - 10 = 44$ (M) · $100 - 22 = 78$ (A) · $56 - 6 = 50$ (I) · $71 - 5 = 66$ (F) · $111 - 23 = 88$ (U) · $100 - 17 = 83$ (L)

Clue 4 (Skip counting): "FOUND RED PONYTAIL AT THE STAGE"

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, __, 70, 80 = 60 (F) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, __, 33, 36 = 30 (O) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, __, 39, 42 = 36 (Y) · Skip-count by 3s. Fill the blank: 3, 6, __, 12, 15 = 9 (R) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, __, 26, 28 = 24 (U) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, __, 18, 20 = 16 (D) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, __, 45, 50 = 40 (A) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, __, 24, 26 = 22 (L) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, __, 22, 24 = 20 (E) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, __, 28, 30 = 26 (H) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, __, 130, 140 = 120 (P) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, __, 18, 21 = 15 (I) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, __, 36, 39 = 33 (S) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, __, 100, 110 = 90 (T) · Skip-count by 2s. Fill the blank: 2, 4, __, 8, 10 = 6 (G) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, __, 12, 14 = 10 (N)

Clue 5 (Missing addends): surviving statement is box 2 → Aaron

$5 + \underline{\quad} = 14 = 9$ · $2 + \underline{\quad} = 12 = 10$ · $1 + \underline{\quad} = 13 = 12$ · $9 + \underline{\quad} = 17 = 8$ · $2 + \underline{\quad} = 8 = 6$ · $4 + \underline{\quad} = 11 = 7$ · $10 + \underline{\quad} = 13 = 3$ · $4 + \underline{\quad} = 5 = 1$ · $1 + \underline{\quad} = 12 = 11$ · $5 + \underline{\quad} = 10 = 5$ · $5 + \underline{\quad} = 9 = 4$