



The Mystery of the Gym Saboteur

Grade 2 math · Addition, Subtraction, Skip counting, Word problems, Missing addends · Reading level grades 5-6

Detective: _____ Date: _____

Someone snuck into Apex Athletics during evening practice, turned off the treadmill power grids, and hid the championship trophy! Work through the gym clues to catch 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 Fitness Saboteur is _____

Possible suspects

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

NAME	WORKOUT SPECIALTY	EQUIPMENT USED	GRIP STYLE	HEADBAND COLOR	ENERGY SNACK
Coco Gauff	Speed Jump Rope	Medicine Ball	Left Handed Grip	Bright Orange Headband	Peanut Butter Bar
Suni Lee	Speed Jump Rope	Barbell	Left Handed Grip	Cobalt Blue Headband	Trail Mix
Usain Bolt	Rowing Laps	Barbell	Right Handed Grip	Bright Orange Headband	Trail Mix
Katie Ledecky	Rowing Laps	Kettlebell	Right Handed Grip	Neon Green Headband	Banana Smoothie
Serena Williams	Speed Jump Rope	Medicine Ball	Left Handed Grip	Cobalt Blue Headband	Peanut Butter Bar
Sha'Carri Richardson	Spin Cycling	Battle Ropes	Left Handed Grip	Bright Orange Headband	Peanut Butter Bar
Tiger Woods	Spin Cycling	Resistance Band	Right Handed Grip	Neon Green Headband	Trail Mix
Mikaela Shiffrin	Calisthenics	Resistance Band	Right Handed Grip	Bright Orange Headband	Peanut Butter Bar
LeBron James	Rowing Laps	Battle Ropes	Left Handed Grip	Bright Orange Headband	Peanut Butter Bar
Simone Biles	Speed Jump Rope	Barbell	Left Handed Grip	Bright Orange Headband	Peanut Butter Bar
Stephen Curry	Spin Cycling	Battle Ropes	Left Handed Grip	Neon Green Headband	Banana Smoothie
Michael Phelps	Calisthenics	Battle Ropes	Left Handed Grip	Cobalt Blue Headband	Trail Mix
Chloe Kim	Spin Cycling	Medicine Ball	Right Handed Grip	Cobalt Blue Headband	Banana Smoothie
Sydney McLaughlin	Calisthenics	Battle Ropes	Left Handed Grip	Cobalt Blue Headband	Peanut Butter Bar
Cristiano Ronaldo	Calisthenics	Medicine Ball	Right Handed Grip	Bright Orange Headband	Peanut Butter Bar
Eliud Kipchoge	Calisthenics	Medicine Ball	Right Handed Grip	Bright Orange Headband	Trail Mix
Alex Morgan	Calisthenics	Kettlebell	Left Handed Grip	Bright Orange Headband	Trail Mix
Venus Williams	Rowing Laps	Kettlebell	Left Handed Grip	Bright Orange Headband	Peanut Butter Bar
Naomi Osaka	Powerlifting	Kettlebell	Left Handed Grip	Neon Green Headband	Peanut Butter Bar
Giannis Antetokounmpo	Calisthenics	Barbell	Left Handed Grip	Neon Green Headband	Banana Smoothie
Tom Brady	Powerlifting	Barbell	Right Handed Grip	Cobalt Blue Headband	Trail Mix

CLUE 1

You add up the weights on two rack stands to unlock the first digital locker code.

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

The diagram shows two rows of boxes, each containing a number. The top row has 18 boxes, and the bottom row has 14 boxes. Some boxes are shaded orange and contain the letter 'T'.

Row	Box Index	Number	Contains 'T'
Top Row	1	52	Yes
	2	68	No
	3	58	No
	4	21	No
	5	80	No
	6	77	No
	7	77	No
	8	55	No
	9	80	No
	10	48	No
	11	41	No
	12	80	No
	13	41	No
	14	48	No
	15	94	No
	16	52	Yes
	17	91	No
	Bottom Row	1	55
2		23	No
3		58	No
4		41	No
5		80	No
6		56	No
7		80	No
8		48	No
9		58	No
10		50	No
11		55	No
12		77	No
13		77	No

$$31 + 21 = \boxed{} \rightarrow \boxed{\text{T}}$$

$32 + 24 = \boxed{} \rightarrow \boxed{\text{C}}$

$27 + 41 = \boxed{} \rightarrow \boxed{\text{H}}$

$$48 + 32 = \boxed{} \rightarrow \boxed{I}$$

$29 + 19 = \boxed{} \rightarrow \boxed{\text{N}}$

$$11 + 10 = \boxed{} \rightarrow \boxed{\mathbf{V}}$$

$38 + 20 = \boxed{} \rightarrow \boxed{\text{E}}$

$26 + 15 = \boxed{} \rightarrow \boxed{\mathbf{D}}$

$16 + 34 = \boxed{} \rightarrow \boxed{\mathbf{B}}$

$$64 + 27 = \boxed{} \rightarrow \boxed{\text{U}}$$

$$30 + 56 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$6 + 17 = \boxed{} \rightarrow \boxed{\text{M}}$$

$19 + 36 = \boxed{} \rightarrow \boxed{\mathbf{A}}$

$40 + 37 = \boxed{} \rightarrow \boxed{\text{L}}$

$54 + 40 = \boxed{} \rightarrow \boxed{\text{O}}$

Scratch space:

CLUE 2

Next, you subtract the missing foam rollers from the equipment total to find a hidden note.

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

[illegible]

$$86 - 1 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$67 - 37 = \boxed{} \rightarrow \boxed{\text{R}}$$

$78 - 26 = \boxed{} \rightarrow \boxed{\mathbf{B}}$

$113 - 38 = \boxed{} \rightarrow \boxed{\text{A}}$

$$55 - 33 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$98 - 18 = \boxed{} \rightarrow \boxed{0}$$

$67 - 34 = \boxed{} \rightarrow \boxed{\text{F}}$

$89 - 1 = \boxed{} \rightarrow \boxed{\text{E}}$

$85 - 11 = \boxed{} \rightarrow \boxed{\text{U}}$

$38 - 22 = \boxed{} \rightarrow \boxed{\text{N}}$

$88 - 30 = \boxed{} \rightarrow \boxed{\text{H}}$

$60 - 15 = \boxed{} \rightarrow \boxed{\text{K}}$

$72 - 13 = \boxed{} \rightarrow \boxed{\mathbf{W}}$

$80 - 32 = \boxed{} \rightarrow \boxed{\text{C}}$

$$58 - 16 = \boxed{} \rightarrow \boxed{\text{L}}$$

$$55 - 20 = \boxed{} \rightarrow \boxed{\text{D}}$$

$95 - 24 = \boxed{} \rightarrow \boxed{\text{M}}$

Scratch space:

CLUE 3 Skip counting

You skip count along the floor markers by fives to reach the hidden security vault.

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

T						T			T							
39	21	90	30	12	80	39	12	120	39	60	36	36	90	100	22	
					T			T	T						T	
16	90	22	8	26	39	33	26	39	39	90	35	33	22	35	22	39
T																
39	21	90	120													

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, __, 42, 45 → **T**

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

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, __, 40, 45 → **R**

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

Skip-count by 2s. Fill the blank: 2, 4, 6, __, 10, 12 → **N**

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

Skip-count by 10s. Fill the blank: 10, 20, __, 40, 50 → **V**

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

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

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, __, 90, 100 → **C**

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

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

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, __, 14, 16 → **I**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, __, 110, 120 → **D**

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

Scratch space:

CLUE 4

Word problems

Coach Miller gives you a quick word problem about gym gear to reveal another detail.

Solve each problem, then write its letter in the boxes to fill in the missing word.

A strand of

B **A** **N** **E** **E** **A** **D** **B** **A** **N** **D** hair

28 16 7 22 21 36 18 16 22 21 28

turned up at the scene.

Gym trainer lined up 4 rows of 7 jump ropes. How many jump ropes in all?

Answer: → **B**

Gym trainer found 7 water bottles yesterday and 14 more today. How many water bottles in all?

Answer: → **H**

Gym trainer lined up 11 rows of 2 sweat towels. How many sweat towels in all?

Answer: → **G**

Gym trainer lined up 2 rows of 8 dumbbells. How many dumbbells in all?

Answer: → **R**

Gym trainer lined up 6 rows of 3 gym mats. How many gym mats in all?

Answer: → **O**

Gym trainer found 5 sweat towels yesterday and 2 more today. How many sweat towels in all?

Answer: → **I**

Gym trainer lined up 4 rows of 9 sweat towels. How many sweat towels in all?

Answer: → **T**

Scratch space:

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

You complete the missing rep counts on a clipboard to unlock the final piece of evidence.

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:

$1 + \underline{\quad} = 9$

$4 + \underline{\quad} = 7$

$5 + \underline{\quad} = 17$

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

$2 + \underline{\quad} = 13$

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

$6 + \underline{\quad} = 11$

$3 + \underline{\quad} = 5$

$7 + \underline{\quad} = 13$

$4 + \underline{\quad} = 8$

$3 + \underline{\quad} = 13$

Step 2 - cross out the sentence with each answer:

1. The villain pulled hard during rowing laps, then swung a heavy kettlebell.
2. The villain dashed through speed jump rope, then swung a heavy kettlebell.
3. The villain pulled hard during rowing laps, then whipped the long battle ropes.
4. The villain pedaled wildly during spin cycling, then swung a heavy kettlebell.
5. The villain dashed through speed jump rope, then whipped the long battle ropes.
6. The villain pedaled wildly during spin cycling, then hoisted a massive barbell.
7. The villain swung through calisthenics, then whipped the long battle ropes.
8. The villain dashed through speed jump rope, then hoisted a massive barbell.
9. The villain lifted heavy during powerlifting, then whipped the long battle ropes.
10. The villain lifted heavy during powerlifting, then stretched a resistance band.
11. The villain dashed through speed jump rope, then stretched a resistance band.
12. The villain pedaled wildly during spin cycling, then whipped the long battle ropes.

Answer Key

The Mystery of the Gym Saboteur

Culprit: Venus Williams

Rowing Laps · Kettlebell · Left Handed Grip · Bright Orange Headband · Peanut Butter Bar

Trail: Start 21 → Clue 1 16 → Clue 2 11 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE VILLAIN DID NOT USE A MEDICINE BALL"

$31 + 21 = 52$ (T) · $32 + 24 = 56$ (C) · $27 + 41 = 68$ (H) · $48 + 32 = 80$ (I) · $29 + 19 = 48$ (N) · $11 + 10 = 21$ (V) · $38 + 20 = 58$ (E) · $26 + 15 = 41$ (D) · $16 + 34 = 50$ (B) · $64 + 27 = 91$ (U) · $30 + 56 = 86$ (S) · $6 + 17 = 23$ (M) · $19 + 36 = 55$ (A) · $40 + 37 = 77$ (L) · $54 + 40 = 94$ (O)

Clue 2 (Subtraction): "THE CHALK MARK ON THE DUMBBELL WAS LEFT HANDED"

$86 - 1 = 85$ (T) · $67 - 37 = 30$ (R) · $78 - 26 = 52$ (B) · $113 - 38 = 75$ (A) · $55 - 33 = 22$ (S) · $98 - 18 = 80$ (O) · $67 - 34 = 33$ (F) · $89 - 1 = 88$ (E) · $85 - 11 = 74$ (U) · $38 - 22 = 16$ (N) · $88 - 30 = 58$ (H) · $60 - 15 = 45$ (K) · $72 - 13 = 59$ (W) · $80 - 32 = 48$ (C) · $58 - 16 = 42$ (L) · $55 - 20 = 35$ (D) · $95 - 24 = 71$ (M)

Clue 3 (Skip counting): "THE VICTIM TOSSED A PEANUT BUTTER BAR AT THEM"

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

Clue 4 (Word problems): "BRIGHT ORANGE HEADBAND"

Gym trainer lined up 4 rows of 7 jump ropes. How many jump ropes in all? = 28 (B) · Gym trainer found 7 water bottles yesterday and 14 more today. How many water bottles in all? = 21 (H) · Gym trainer lined up 11 rows of 2 sweat towels. How many sweat towels in all? = 22 (G) · Gym trainer lined up 2 rows of 8 dumbbells. How many dumbbells in all? = 16 (R) · Gym trainer lined up 6 rows of 3 gym mats. How many gym mats in all? = 18 (O) · Gym trainer found 5 sweat towels yesterday and 2 more today. How many sweat towels in all? = 7 (I) · Gym trainer lined up 4 rows of 9 sweat towels. How many sweat towels in all? = 36 (T)

Clue 5 (Missing addends): surviving statement is box 1 → Venus Williams

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