



The Great Stadium Yarn Swap

Grade 1 math · Place value, Skip counting, Addition, Subtraction, Missing addends · Reading level grades 7-9

Detective: _____ **Date:** _____

Right before the final showdown between the Feline Strikers and the Alley Dunkers, someone snuck into the arena locker room and swapped all the official match balls with oversized balls of yarn! Head Referee Scratch called in your detective agency to analyze the clues and catch the culprit before game time.

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 stadium prowler is _____

Possible suspects

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

NAME	SIGNATURE MOVE	SPECIAL GEAR	DOMINANT PAW	FUR PATTERN	DISTRACTION
Cristiano Ronaldo	Bicycle Kick	Tail Ribbon	Right Pawed	Tabby Stripes	Fish Treats
Shohei Ohtani	Laser Pass	Tail Ribbon	Left Pawed	Tuxedo Coat	Laser Pointer
Diana Taurasi	Paw Dribble	Catnip Boots	Right Pawed	Calico Fur	Laser Pointer
Lionel Messi	Alley Oop Leap	Tail Ribbon	Right Pawed	Tabby Stripes	Fish Treats
Steph Curry	Paw Dribble	Whiskered Goggles	Right Pawed	Tuxedo Coat	Fish Treats
Sabrina Ionescu	Paw Dribble	Tail Ribbon	Left Pawed	Calico Fur	Squeaky Mouse Toy
Sue Bird	Paw Dribble	Pounce Cleats	Left Pawed	Tabby Stripes	Laser Pointer
Coco Gauff	Paw Dribble	Catnip Boots	Left Pawed	Tuxedo Coat	Squeaky Mouse Toy
Megan Rapinoe	Header Strike	Whiskered Goggles	Right Pawed	Tabby Stripes	Fish Treats
Mia Hamm	Alley Oop Leap	Tail Ribbon	Left Pawed	Tabby Stripes	Fish Treats
Alex Morgan	Bicycle Kick	Pounce Cleats	Right Pawed	Tabby Stripes	Fish Treats
Caitlin Clark	Bicycle Kick	Neon Jersey	Right Pawed	Tuxedo Coat	Squeaky Mouse Toy
Thierry Henry	Header Strike	Neon Jersey	Left Pawed	Tabby Stripes	Fish Treats
Simone Biles	Laser Pass	Neon Jersey	Right Pawed	Tabby Stripes	Fish Treats
Patrick Mahomes	Laser Pass	Neon Jersey	Right Pawed	Calico Fur	Fish Treats
Kylian Mbappé	Paw Dribble	Tail Ribbon	Right Pawed	Tuxedo Coat	Squeaky Mouse Toy
Sunisa Lee	Alley Oop Leap	Tail Ribbon	Left Pawed	Calico Fur	Fish Treats
LeBron James	Alley Oop Leap	Catnip Boots	Right Pawed	Tuxedo Coat	Squeaky Mouse Toy
Giannis Antetokounmpo	Laser Pass	Neon Jersey	Left Pawed	Calico Fur	Fish Treats
Luka Doncic	Bicycle Kick	Whiskered Goggles	Right Pawed	Tabby Stripes	Squeaky Mouse Toy
A'ja Wilson	Alley Oop Leap	Tail Ribbon	Right Pawed	Calico Fur	Laser Pointer

CLUE 1

To decipher the security keypad near the locker, you examine the tens and ones digits on the referee's digital clipboard.

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

A 2x10 grid of boxes. The top row contains the following sequence: an orange box with 'T', three empty boxes, an orange box with 'T', and six empty boxes. The bottom row contains: two empty boxes, an orange box with 'T', three empty boxes, an orange box with 'T', and six empty boxes. Below each box is a number. The top row numbers are: 83, 49, 32, 71, 44, 32, 26, 41, 19, 55, 43, 86, 39, 68, 72, 83, 47, 35, 32, 71. The bottom row numbers are: 44, 35, 83, 43, 71, 32, 39, 35, 43, 44, 55, 32, 55, 86, 32, 26, 83, 71.

What number has 8 tens and 3 ones? → **T**

What number has 4 tens and 7 ones? → **D**

What number has 3 tens and 2 ones? → **E**

What number has 2 tens and 6 ones? → **A**

What number has 4 tens and 9 ones? → **H**

What number has 4 tens and 4 ones? → **N**

What number has 6 tens and 8 ones? → **R**

What number has 5 tens and 5 ones? → **C**

What number has 7 tens and 1 one? → **S**

What number has 8 tens and 6 ones? → **L**

What number has 3 tens and 5 ones? → **O**

What number has 7 tens and 2 ones? →

What number has 3 tens and 9 ones? → **P**

What number has 4 tens and 1 one? → **K**

What number has 4 tens and 3 ones? → **U**

What number has 1 ten and 9 ones? → **Y**

Scratch space:

CLUE 2 Skip counting

To trace the prowler's footsteps down the sideline bleachers, you count the bench seat numbers by twos and fives.

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

T																			
9	22	12	120	15	120	21	12	130	9	33	30	100	22	9	21	26	25		
				T								T						T	
21	33	30	36	9	120	26	33	12	39	36	9	22	12	36	12	9			

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

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

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

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

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

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

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

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

Skip-count by 5s. Fill the blank: 5, 10, __, 20, 25 → **U**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, __, 140, 150 → **C**

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, __, 35, 40 → **I**

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

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

Scratch space:

CLUE 3 Addition

To calculate the total training cones cleared on the practice pitch, you combine the tallies from both team captains.

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

A																	
19	2	8	17	5	8	18	18	15	11	16	4	10	12	19	4	11	

		A												A			
4	10	19	20	20	12	3	4	16	12	14	15	5	5	19	15	7	

$7 + 12 = \square \rightarrow \boxed{A}$

$12 + 4 = \square \rightarrow \boxed{H}$

$5 + 13 = \square \rightarrow \boxed{F}$

$1 + 2 = \square \rightarrow \boxed{D}$

$2 + 2 = \square \rightarrow \boxed{T}$

$2 + 3 = \square \rightarrow \boxed{L}$

$5 + 9 = \square \rightarrow \boxed{V}$

$7 + 5 = \square \rightarrow \boxed{E}$

$11 + 4 = \square \rightarrow \boxed{I}$

$1 + 1 = \square \rightarrow \boxed{B}$

$2 + 6 = \square \rightarrow \boxed{O}$

$3 + 4 = \square \rightarrow \boxed{N}$

$7 + 4 = \square \rightarrow \boxed{S}$

$12 + 5 = \square \rightarrow \boxed{W}$

$10 + 10 = \square \rightarrow \boxed{P}$

$4 + 6 = \square \rightarrow \boxed{R}$

Scratch space:

CLUE 4

To figure out how many penalty cards were misplaced, you subtract the remaining cards in the referee pouch from the total.

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

[illegible]

$$20 - 1 = \boxed{} \rightarrow \boxed{\text{S}}$$

$17 - 6 = \boxed{} \rightarrow \boxed{\text{E}}$

$15 - 6 = \square \rightarrow \mathbf{A}$

$9 - 8 = \boxed{} \rightarrow \boxed{\mathbf{D}}$

$$17 - 9 = \boxed{} \rightarrow \boxed{\text{H}}$$

Scratch space:

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

To find the missing jersey numbers needed to complete the championship roster, you solve for the blank spots on the lineup board.

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:

$5 + \underline{\quad} = 6$

$10 + \underline{\quad} = 12$

$9 + \underline{\quad} = 18$

$6 + \underline{\quad} = 18$

$8 + \underline{\quad} = 12$

$5 + \underline{\quad} = 11$

$9 + \underline{\quad} = 14$

$4 + \underline{\quad} = 15$

$3 + \underline{\quad} = 10$

$6 + \underline{\quad} = 16$

$3 + \underline{\quad} = 11$

Step 2 - cross out the sentence with each answer:

1. The villain scored with a bicycle kick, then tied a bright tail ribbon.
2. The villain leaped for an alley oop, then tied a bright tail ribbon.
3. The villain knocked in a header strike, then adjusted whiskered goggles.
4. The villain leaped for an alley oop, then strapped on pounce cleats.
5. The villain knocked in a header strike, then zipped into a neon jersey.
6. The villain leaped for an alley oop, then zipped into a neon jersey.
7. The villain scored with a bicycle kick, then zipped into a neon jersey.
8. The villain zapped a laser pass, then laced up catnip boots.
9. The villain zapped a laser pass, then zipped into a neon jersey.
10. The villain knocked in a header strike, then strapped on pounce cleats.
11. The villain leaped for an alley oop, then laced up catnip boots.
12. The villain dribbled past defenders, then tied a bright tail ribbon.

Answer Key

The Great Stadium Yarn Swap

Culprit: Megan Rapinoe

Header Strike · Whiskered Goggles · Right Pawed · Tabby Stripes · Fish Treats

Trail: Start 21 → Clue 1 19 → Clue 2 12 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE SNEAKY CULPRIT DOES NOT USE POUNCE CLEATS"

What number has 8 tens and 3 ones? = 83 (T) · What number has 4 tens and 7 ones? = 47 (D) · What number has 3 tens and 2 ones? = 32 (E) · What number has 2 tens and 6 ones? = 26 (A) · What number has 4 tens and 9 ones? = 49 (H) · What number has 4 tens and 4 ones? = 44 (N) · What number has 6 tens and 8 ones? = 68 (R) · What number has 5 tens and 5 ones? = 55 (C) · What number has 7 tens and 1 one? = 71 (S) · What number has 8 tens and 6 ones? = 86 (L) · What number has 3 tens and 5 ones? = 35 (O) · What number has 7 tens and 2 ones? = 72 (I) · What number has 3 tens and 9 ones? = 39 (P) · What number has 4 tens and 1 one? = 41 (K) · What number has 4 tens and 3 ones? = 43 (U) · What number has 1 ten and 9 ones? = 19 (Y)

Clue 2 (Skip counting): "THE SUSPECT RIGHT PAW PRINTS ARE ON THE NET"

Skip-count by 3s. Fill the blank: 3, 6, __, 12, 15 = 9 (T) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, __, 24, 27 = 21 (P) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, __, 28, 30 = 26 (A) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, __, 24, 26 = 22 (H) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, __, 42, 45 = 39 (O) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, __, 39, 42 = 36 (N) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, __, 110, 120 = 100 (G) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, __, 130, 140 = 120 (S) · Skip-count by 5s. Fill the blank: 5, 10, __, 20, 25 = 15 (U) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, __, 140, 150 = 130 (C) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, __, 14, 16 = 12 (E) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, __, 35, 40 = 30 (I) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 = 25 (W) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, __, 36, 39 = 33 (R)

Clue 3 (Addition): "A BOWL OF FISH TREATS TRAPPED THE VILLAIN"

$7 + 12 = 19$ (A) · $12 + 4 = 16$ (H) · $5 + 13 = 18$ (F) · $1 + 2 = 3$ (D) · $2 + 2 = 4$ (T) · $2 + 3 = 5$ (L) · $5 + 9 = 14$ (V) · $7 + 5 = 12$ (E) · $11 + 4 = 15$ (I) · $1 + 1 = 2$ (B) · $2 + 6 = 8$ (O) · $3 + 4 = 7$ (N) · $7 + 4 = 11$ (S) · $12 + 5 = 17$ (W) · $10 + 10 = 20$ (P) · $4 + 6 = 10$ (R)

Clue 4 (Subtraction): "THE DETECTIVE SPOTTED STRIPED TABBY FUR"

$12 - 9 = 3$ (T) · $16 - 4 = 12$ (I) · $20 - 1 = 19$ (S) · $20 - 2 = 18$ (R) · $7 - 3 = 4$ (O) · $5 - 3 = 2$ (V) · $17 - 6 = 11$ (E) · $19 - 3 = 16$ (U) · $19 - 4 = 15$ (F) · $15 - 6 = 9$ (A) · $11 - 4 = 7$ (C) · $7 - 2 = 5$ (Y) · $19 - 5 = 14$ (P) · $9 - 8 = 1$ (D) · $19 - 2 = 17$ (B) · $17 - 9 = 8$ (H)

Clue 5 (Missing addends): surviving statement is box 3 → Megan Rapinoe

$5 + \underline{\quad} = 6 = 1$ · $10 + \underline{\quad} = 12 = 2$ · $9 + \underline{\quad} = 18 = 9$ · $6 + \underline{\quad} = 18 = 12$ · $8 + \underline{\quad} = 12 = 4$ · $5 + \underline{\quad} = 11 = 6$ · $9 + \underline{\quad} = 14 = 5$ · $4 + \underline{\quad} = 15 = 11$ · $3 + \underline{\quad} = 10 = 7$ · $6 + \underline{\quad} = 16 = 10$ · $3 + \underline{\quad} = 11 = 8$