



The Case of the Missing Championship Banner

Grade 7 math · Multiplication, Skip counting, Word problems, Integers, Division · Reading level grades 5-6

Detective: _____ Date: _____

The Westbrook Wildcats championship banner has disappeared from the gym wall right before the big tournament! The culprit left a trail of wildcat paw-print stickers and some tricky basketball math puzzles. We must solve the puzzles to find the sneaky mascot stealer before tip-off!

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 sneaky mascot stealer 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	LUCKY GEAR	SHOOTING HAND	JERSEY NUMBER COLOR	FAVORITE ENERGY SNACK
Gabe	fast break sprint	gold high tops	left handed shooter	bold blue numbers	orange slices
Owen	fast break sprint	silver whistle	left handed shooter	shiny silver numbers	banana shakes
Carter	half court hook	blue warmup jacket	left handed shooter	bold blue numbers	protein bars
Felix	no look pass	gold high tops	right handed shooter	shiny silver numbers	protein bars
Arlo	half court hook	blue warmup jacket	left handed shooter	bold blue numbers	orange slices
Leo	fast break sprint	gold high tops	right handed shooter	shiny silver numbers	orange slices
Alex	sky hook shot	blue warmup jacket	right handed shooter	bold blue numbers	protein bars
Vince	crossover dribble	neon wristbands	left handed shooter	shiny silver numbers	protein bars
Nico	no look pass	gold high tops	left handed shooter	bold blue numbers	orange slices
Quinn	sky hook shot	striped headband	right handed shooter	shiny silver numbers	banana shakes
Devon	fast break sprint	blue warmup jacket	left handed shooter	bright white numbers	banana shakes
Ian	sky hook shot	silver whistle	right handed shooter	shiny silver numbers	orange slices
Ryder	no look pass	striped headband	right handed shooter	bright white numbers	protein bars
Sammy	fast break sprint	striped headband	right handed shooter	shiny silver numbers	orange slices
Zack	sky hook shot	silver whistle	left handed shooter	shiny silver numbers	orange slices
Toby	sky hook shot	blue warmup jacket	right handed shooter	shiny silver numbers	orange slices
Milo	half court hook	neon wristbands	right handed shooter	bright white numbers	banana shakes
Eli	fast break sprint	neon wristbands	right handed shooter	bright white numbers	protein bars
Kai	half court hook	neon wristbands	right handed shooter	shiny silver numbers	orange slices
Parker	no look pass	striped headband	right handed shooter	shiny silver numbers	banana shakes
Wyatt	no look pass	striped headband	right handed shooter	bright white numbers	orange slices

CLUE 1

Multiplication facts (1-12)

We found the gear room in a total mess. Coach Marcus counts the neatly stacked rows of basketballs to see what is missing.

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

T								T									
81	30	110	120	5	42	16	42	81	8	110	32	88	16	110	42	16	
				T													
8	88	132	4	81	77	32	16	5	4								

$9 \times 9 = \square \rightarrow \text{T}$

$6 \times 7 = \square \rightarrow \text{O}$

$4 \times 8 = \square \rightarrow \text{A}$

$2 \times 4 = \square \rightarrow \text{W}$

$5 \times 1 = \square \rightarrow \text{D}$

$1 \times 4 = \square \rightarrow \text{S}$

$5 \times 6 = \square \rightarrow \text{H}$

$7 \times 11 = \square \rightarrow \text{B}$

$8 \times 2 = \square \rightarrow \text{N}$

$11 \times 8 = \square \rightarrow \text{R}$

$12 \times 11 = \square \rightarrow \text{I}$

$11 \times 10 = \square \rightarrow \text{E}$

$12 \times 10 = \square \rightarrow \text{Y}$

Scratch space:

CLUE 2

Our tracker follows wildcat paw prints painted on the court, skipping every third floor tile to trace the culprit's path.

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

Diagram illustrating a sequence of numbers and their corresponding values (T or empty box) across two rows.

Top Row:

Value	30	70	65	9	27	6	55	100	45	30	140	70	35	35	30	140
T										T					T	

Bottom Row:

Value	30	70	65	45	100	100	45	12	70	30	70	80	90	110
T										T				

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

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, __, 75, 80 → **H**

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, __, 50, 55 →

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, __, 60, 65 → **P**

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

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 → **E**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, , 150, 160 → **S**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, , 120, 130 → **D**

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

Skip-count by 3s. Fill the blank: 3, 6, 9, __, 15, 18 → **G**

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

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

Scratch space:

CLUE 3

Word problems

The scoreboard is flashing a riddle. We must solve a tricky word problem about tournament points to unlock the gym locker.

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

Someone scared the villain off with

O							L	I	C		
58	101	109	100	87	99	98				99	98

.

There were 73 basketballs. 15 were used up. How many basketballs are left?

Answer: → **O**

Coach Marcus lined up 10 rows of 10 basketballs. How many basketballs in all?

Answer: → **N**

Coach Marcus found 23 basketballs yesterday and 86 more today. How many basketballs in all?

Answer: → **A**

Coach Marcus lined up 9 rows of 11 basketballs. How many basketballs in all?

Answer: → **E**

Coach Marcus found 59 practice cones yesterday and 39 more today. How many practice cones in all?

Answer: → **S**

There were 108 whistles. 7 were used up. How many whistles are left?

Answer: → **R**

There were 108 water bottles. 21 were used up. How many water bottles are left?

Answer: → **G**

Scratch space:

CLUE 4 Integers

The team's training log shows gains and losses in running times, helping us track the thief's sudden burst of speed.

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

T																			
24	17	25	20	12	16	25	12	5	25	7	17	1	22	5	17	20	23	7	
5	20	30	26	25	12	23	13	28	14	25	12	5							

$9 - (-15) = \square \rightarrow \text{T}$	$(-10) + 27 = \square \rightarrow \text{H}$	$18 - (-7) = \square \rightarrow \text{E}$
$15 - (-1) = \square \rightarrow \text{J}$	$(-6) + 36 = \square \rightarrow \text{L}$	$(-12) + 19 = \square \rightarrow \text{Y}$
$8 - (-5) = \square \rightarrow \text{U}$	$11 - (-1) = \square \rightarrow \text{R}$	$(-8) + 13 = \square \rightarrow \text{S}$
$(-8) + 9 = \square \rightarrow \text{A}$	$(-12) + 26 = \square \rightarrow \text{B}$	$(-6) + 34 = \square \rightarrow \text{M}$
$20 - (-6) = \square \rightarrow \text{V}$	$13 - (-10) = \square \rightarrow \text{N}$	$8 - (-12) = \square \rightarrow \text{I}$
$(-9) + 31 = \square \rightarrow \text{D}$		

Scratch space:

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

To divide the remaining practice jerseys evenly among the players, we calculate the fair share and find a hidden note.

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:

$15 \div 5 = \boxed{}$

$2 \div 2 = \boxed{}$

$110 \div 10 = \boxed{}$

$28 \div 7 = \boxed{}$

$36 \div 4 = \boxed{}$

$55 \div 11 = \boxed{}$

$22 \div 11 = \boxed{}$

$70 \div 7 = \boxed{}$

$64 \div 8 = \boxed{}$

$66 \div 11 = \boxed{}$

$132 \div 11 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain speeds down the court, then adjusts their striped headband.
2. The villain performs a flawless crossover, then blows their loud silver whistle.
3. The villain nails a towering sky hook, then blows their loud silver whistle.
4. The villain speeds down the court, then zips up their blue warmup jacket.
5. The villain sinks a half court shot, then flashes their gold high tops.
6. The villain sinks a half court shot, then zips up their blue warmup jacket.
7. The villain speeds down the court, then flashes their gold high tops.
8. The villain nails a towering sky hook, then flashes their gold high tops.
9. The villain performs a flawless crossover, then flashes their gold high tops.
10. The villain sinks a half court shot, then snaps their neon wristbands.
11. The villain nails a towering sky hook, then zips up their blue warmup jacket.
12. The villain makes a clever no-look pass, then zips up their blue warmup jacket.

Answer Key

The Case of the Missing Championship Banner

Culprit: Leo

fast break sprint · gold high tops · right handed shooter · shiny silver numbers · orange slices

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

Clue 1 (Multiplication facts (1-12)): "THEY DO NOT WEAR NEON WRISTBANDS"

$9 \times 9 = 81$ (T) · $6 \times 7 = 42$ (O) · $4 \times 8 = 32$ (A) · $2 \times 4 = 8$ (W) · $5 \times 1 = 5$ (D) · $1 \times 4 = 4$ (S) · $5 \times 6 = 30$ (H) · $7 \times 11 = 77$ (B) · $8 \times 2 = 16$ (N) · $11 \times 8 = 88$ (R) · $12 \times 11 = 132$ (I) · $11 \times 10 = 110$ (E) · $12 \times 10 = 120$ (Y)

Clue 2 (Skip counting): "THE CULPRIT SHOOTS WITH THEIR RIGHT HAND"

Skip-count by 10s. Fill the blank: 10, 20, __, 40, 50 = 30 (T) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, __, 100, 110 = 90 (N) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, __, 75, 80 = 70 (H) · Skip-count by 3s. Fill the blank: 3, 6, __, 12, 15 = 9 (C) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, __, 50, 55 = 45 (I) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, __, 30, 33 = 27 (U) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, __, 60, 65 = 55 (P) · Skip-count by 2s. Fill the blank: 2, 4, __, 8, 10 = 6 (L) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, __, 110, 120 = 100 (R) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 = 65 (E) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, __, 120, 130 = 110 (D) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, __, 40, 45 = 35 (O) · Skip-count by 3s. Fill the blank: 3, 6, 9, __, 15, 18 = 12 (G) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, __, 22, 24 = 20 (W) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, __, 90, 100 = 80 (A)

Clue 3 (Word problems): "ORANGE SLICES"

There were 73 basketballs. 15 were used up. How many basketballs are left? = 58 (O) · Coach Marcus lined up 10 rows of 10 basketballs. How many basketballs in all? = 100 (N) · Coach Marcus found 23 basketballs yesterday and 86 more today. How many basketballs in all? = 109 (A) · Coach Marcus lined up 9 rows of 11 basketballs. How many basketballs in all? = 99 (E) · Coach Marcus found 59 practice cones yesterday and 39 more today. How many practice cones in all? = 98 (S) · There were 108 whistles. 7 were used up. How many whistles are left? = 101 (R) · There were 108 water bottles. 21 were used up. How many water bottles are left? = 87 (G)

Clue 4 (Integers): "THEIR JERSEY HAD SHINY SILVER NUMBERS"

$9 - (-15) = 24$ (T) · $(-10) + 27 = 17$ (H) · $18 - (-7) = 25$ (E) · $15 - (-1) = 16$ (J) · $(-6) + 36 = 30$ (L) · $(-12) + 19 = 7$ (Y) · $8 - (-5) = 13$ (U) · $11 - (-1) = 12$ (R) · $(-8) + 13 = 5$ (S) · $(-8) + 9 = 1$ (A) · $(-12) + 26 = 14$ (B) · $(-6) + 34 = 28$ (M) · $20 - (-6) = 26$ (V) · $13 - (-10) = 23$ (N) · $8 - (-12) = 20$ (I) · $(-9) + 31 = 22$ (D)

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

$15 \div 5 = 3$ · $2 \div 2 = 1$ · $110 \div 10 = 11$ · $28 \div 7 = 4$ · $36 \div 4 = 9$ · $55 \div 11 = 5$ · $22 \div 11 = 2$ · $70 \div 7 = 10$ · $64 \div 8 = 8$ · $66 \div 11 = 6$ · $132 \div 11 = 12$