



The Big Championship Mystery

Grade 4 math · Rounding, Addition, Subtraction, Multiplication, Division · Reading level grades 3-4

Detective: _____ Date: _____

The golden championship trophy has vanished from the center mat! A mysterious squad member took it right before the final routine. Use your math skills and deductive powers to crack the case and find the thief!

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 trophy thief is _____

Possible suspects

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

NAME	STUNT SPECIALTY	SQUAD GEAR	LEAD FOOT	CHEER HAIRSTYLE	PERFORMANCE DISTRACTION
Addison	spotting	sparkly megaphones	right footed flyer	high ponytail	smudge of glitter
Kylie	tumbling	led high tops	right footed flyer	high ponytail	smudge of glitter
Haley	spotting	sparkly megaphones	left footed flyer	high ponytail	squeaky floor mat
Paige	flying	glitter facepaint	right footed flyer	space buns	squeaky floor mat
Savannah	spotting	neon hairbows	right footed flyer	high ponytail	smudge of glitter
Chloe	spotting	neon hairbows	left footed flyer	space buns	squeaky floor mat
Peyton	spotting	neon hairbows	right footed flyer	high ponytail	squeaky floor mat
Lexi	tumbling	glitter facepaint	right footed flyer	high ponytail	squeaky floor mat
Mckenzie	tumbling	led high tops	right footed flyer	high ponytail	squeaky floor mat
Sierra	spotting	glitter facepaint	right footed flyer	high ponytail	squeaky floor mat
Sienna	spotting	sparkly megaphones	right footed flyer	half up style	squeaky floor mat
Carly	base lifting	glitter facepaint	right footed flyer	high ponytail	squeaky floor mat
Skylar	dancing	neon hairbows	left footed flyer	high ponytail	smudge of glitter
Trinity	dancing	sparkly megaphones	left footed flyer	high ponytail	squeaky floor mat
Avery	base lifting	neon hairbows	left footed flyer	high ponytail	squeaky floor mat
Kendall	tumbling	neon hairbows	left footed flyer	space buns	smudge of glitter
Brooklyn	dancing	metallic pompoms	left footed flyer	space buns	squeaky floor mat
Morgan	base lifting	glitter facepaint	left footed flyer	high ponytail	loud buzzer noise
Bella	flying	metallic pompoms	right footed flyer	high ponytail	smudge of glitter
Brooke	tumbling	led high tops	right footed flyer	half up style	squeaky floor mat
Angel	tumbling	metallic pompoms	left footed flyer	half up style	squeaky floor mat

CLUE 1 Rounding

The electronic scoreboard rounds the team scores to the nearest ten to save space.

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

T																T
430	200	50	90	9000	5000	5000	2000	9000	170	500	230	50	370	170	230	430

										T				
900	50	2000	3000	5000	50	500	200	9000	3700	200	430	230	1100	370

Round 430 to the nearest ten → **T**

Round 1,072 to the nearest hundred → **P**

Round 366 to the nearest ten → **S**

Round 497 to the nearest hundred → **D**

Round 861 to the nearest hundred → **W**

Round 87 to the nearest ten → **V**

Round 8,805 to the nearest thousand → **I**

Round 234 to the nearest ten → **O**

Round 2,548 to the nearest thousand → **R**

Round 4,949 to the nearest thousand → **L**

Round 178 to the nearest hundred → **H**

Round 48 to the nearest ten → **E**

Round 2,279 to the nearest thousand → **A**

Round 174 to the nearest ten → **N**

Round 3,655 to the nearest hundred → **G**

Scratch space:

CLUE 2 Addition

Let us add the extra hair bows found on the practice floor to see who dropped them.

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

T							T				T				T	
2458	5818	7277	8850	4095	8487	5818	2458	2836	2017	2017	2458	6915	7277	2836	2458	6037

															T
4210	7277	7277	9155	4885	5818	2017	7277	9155	8850	4095	4879	2458			

$1426 + 1032 = \boxed{} \rightarrow \boxed{\text{T}}$

$1990 + 2895 = \boxed{} \rightarrow \boxed{\text{S}}$

$4045 + 1773 = \boxed{} \rightarrow \boxed{\text{H}}$

$2517 + 4760 = \boxed{} \rightarrow \boxed{\text{E}}$

$4418 + 4069 = \boxed{} \rightarrow \boxed{\text{G}}$

$2435 + 1660 = \boxed{} \rightarrow \boxed{\text{I}}$

$3990 + 4860 = \boxed{} \rightarrow \boxed{\text{R}}$

$1842 + 994 = \boxed{} \rightarrow \boxed{\text{F}}$

$2414 + 1796 = \boxed{} \rightarrow \boxed{\text{D}}$

$2312 + 2567 = \boxed{} \rightarrow \boxed{\text{N}}$

$678 + 1339 = \boxed{} \rightarrow \boxed{\text{O}}$

$3709 + 5446 = \boxed{} \rightarrow \boxed{\text{P}}$

$3743 + 2294 = \boxed{} \rightarrow \boxed{\text{A}}$

$4838 + 2077 = \boxed{} \rightarrow \boxed{\text{L}}$

Scratch space:

CLUE 3

Subtraction

We can subtract the ruined pom poms from our clean stock to see how many were taken.

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

A					A				A			A			
4731	4770	5944	8614	2334	4731	2010	2961	7019	4731	6239	7019	4731	2010	2334	4770

6239	6259	2334	7019	6239	8314	2097	2397	8614	2397

$5046 - 315 = \boxed{} \rightarrow \boxed{A}$

$7740 - 4779 = \boxed{} \rightarrow \boxed{Y}$

$6082 - 3748 = \boxed{} \rightarrow \boxed{E}$

$12693 - 4379 = \boxed{} \rightarrow \boxed{R}$

$6367 - 108 = \boxed{} \rightarrow \boxed{H}$

$7983 - 1744 = \boxed{} \rightarrow \boxed{T}$

$9308 - 694 = \boxed{} \rightarrow \boxed{U}$

$3808 - 1411 = \boxed{} \rightarrow \boxed{P}$

$9642 - 3698 = \boxed{} \rightarrow \boxed{Q}$

$9228 - 2209 = \boxed{} \rightarrow \boxed{M}$

$3751 - 1654 = \boxed{} \rightarrow \boxed{I}$

$6826 - 2056 = \boxed{} \rightarrow \boxed{S}$

$6006 - 3996 = \boxed{} \rightarrow \boxed{K}$

Scratch space:

CLUE 4
Multiplication facts (1-12)

The junior team stands in equal rows of gymnasts. Multiply the rows to unlock the gate.

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

A																	
96	11	28	1	12	18	14	12	18	55	28	1	54	120	96	14	11	

			A				A							
70	120	27	96	1	3	24	96	70	108	28	84	1	3	

$8 \times 12 = \square \rightarrow$ A	$9 \times 6 = \square \rightarrow$ Y	$2 \times 7 = \square \rightarrow$ I	$3 \times 6 = \square \rightarrow$ H
$11 \times 5 = \square \rightarrow$ P	$12 \times 7 = \square \rightarrow$ U	$9 \times 12 = \square \rightarrow$ F	
$1 \times 1 = \square \rightarrow$ N	$10 \times 12 = \square \rightarrow$ T	$1 \times 3 = \square \rightarrow$ D	
$1 \times 12 = \square \rightarrow$ G	$7 \times 10 = \square \rightarrow$ S	$3 \times 8 = \square \rightarrow$ W	
$1 \times 11 = \square \rightarrow$ L	$7 \times 4 = \square \rightarrow$ O	$3 \times 9 = \square \rightarrow$ R	

Scratch space:

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

We must divide the box of energy bars evenly among the squads to find the locker key.

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:

$99 \div 11 = \square$

$55 \div 11 = \square$

$63 \div 9 = \square$

$20 \div 2 = \square$

$33 \div 3 = \square$

$16 \div 4 = \square$

$144 \div 12 = \square$

$18 \div 6 = \square$

$7 \div 7 = \square$

$64 \div 8 = \square$

$22 \div 11 = \square$

Step 2 - cross out the sentence with each answer:

1. The villain lifts the entire team pyramid, then snaps on bright neon hairbows.
2. The villain catches the falling flyer, then lights up the room with led high tops.
3. The villain leads the champion dance routine, then paints faces with glitter facepaint.
4. The villain lifts the entire team pyramid, then shakes some metallic pompoms.
5. The villain lifts the entire team pyramid, then paints faces with glitter facepaint.
6. The villain performs a double backflip, then paints faces with glitter facepaint.
7. The villain catches the falling flyer, then snaps on bright neon hairbows.
8. The villain leaps off the grand pyramid, then paints faces with glitter facepaint.
9. The villain catches the falling flyer, then paints faces with glitter facepaint.
10. The villain leaps off the grand pyramid, then shouts through sparkly megaphones.
11. The villain performs a double backflip, then shakes some metallic pompoms.
12. The villain leads the champion dance routine, then shakes some metallic pompoms.

Answer Key

The Big Championship Mystery

Culprit: Lexi

tumbling · glitter facepaint · right footed flyer · high ponytail · squeaky floor mat

Trail: Start 21 → Clue 1 18 → Clue 2 9 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE VILLAIN DOES NOT WEAR LED HIGH TOPS"

Round 430 to the nearest ten = 430 (T) · Round 1,072 to the nearest hundred = 1100 (P) · Round 366 to the nearest ten = 370 (S) · Round 497 to the nearest hundred = 500 (D) · Round 861 to the nearest hundred = 900 (W) · Round 87 to the nearest ten = 90 (V) · Round 8,805 to the nearest thousand = 9000 (I) · Round 234 to the nearest ten = 230 (O) · Round 2,548 to the nearest thousand = 3000 (R) · Round 4,949 to the nearest thousand = 5000 (L) · Round 178 to the nearest hundred = 200 (H) · Round 48 to the nearest ten = 50 (E) · Round 2,279 to the nearest thousand = 2000 (A) · Round 174 to the nearest ten = 170 (N) · Round 3,655 to the nearest hundred = 3700 (G)

Clue 2 (Addition): "THE RIGHT FOOT LEFT A DEEP SHOE PRINT"

$1426 + 1032 = 2458$ (T) · $1990 + 2895 = 4885$ (S) · $4045 + 1773 = 5818$ (H) · $2517 + 4760 = 7277$ (E) · $4418 + 4069 = 8487$ (G) · $2435 + 1660 = 4095$ (I) · $3990 + 4860 = 8850$ (R) · $1842 + 994 = 2836$ (F) · $2414 + 1796 = 4210$ (D) · $2312 + 2567 = 4879$ (N) · $678 + 1339 = 2017$ (O) · $3709 + 5446 = 9155$ (P) · $3743 + 2294 = 6037$ (A) · $4838 + 2077 = 6915$ (L)

Clue 3 (Subtraction): "A SQUEAKY MAT MAKES THEM TRIP UP"

$5046 - 315 = 4731$ (A) · $7740 - 4779 = 2961$ (Y) · $6082 - 3748 = 2334$ (E) · $12693 - 4379 = 8314$ (R) · $6367 - 108 = 6259$ (H) · $7983 - 1744 = 6239$ (T) · $9308 - 694 = 8614$ (U) · $3808 - 1411 = 2397$ (P) · $9642 - 3698 = 5944$ (Q) · $9228 - 2209 = 7019$ (M) · $3751 - 1654 = 2097$ (I) · $6826 - 2056 = 4770$ (S) · $6006 - 3996 = 2010$ (K)

Clue 4 (Multiplication facts (1-12)): "A LONG HIGH PONYTAIL STRAND WAS FOUND"

$8 \times 12 = 96$ (A) · $9 \times 6 = 54$ (Y) · $2 \times 7 = 14$ (I) · $3 \times 6 = 18$ (H) · $11 \times 5 = 55$ (P) · $12 \times 7 = 84$ (U) · $9 \times 12 = 108$ (F) · $1 \times 1 = 1$ (N) · $10 \times 12 = 120$ (T) · $1 \times 3 = 3$ (D) · $1 \times 12 = 12$ (G) · $7 \times 10 = 70$ (S) · $3 \times 8 = 24$ (W) · $1 \times 11 = 11$ (L) · $7 \times 4 = 28$ (O) · $3 \times 9 = 27$ (R)

Clue 5 (Division facts (1-12)): surviving statement is box 6 → Lexi

$99 \div 11 = 9$ · $55 \div 11 = 5$ · $63 \div 9 = 7$ · $20 \div 2 = 10$ · $33 \div 3 = 11$ · $16 \div 4 = 4$ · $144 \div 12 = 12$ · $18 \div 6 = 3$ · $7 \div 7 = 1$ · $64 \div 8 = 8$ · $22 \div 11 = 2$