



The Big Hoop Catastrophe

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

Detective: _____ Date: _____

The Championship Cat-Basket Trophy has been swiped right before the big game! The entire Hoop-and-Whisker Arena is in a frenzy. We need to find the sneaky cat who did it before the final buzzer sounds!

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 Laser Pointer Bandit 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	SNEAKER GEAR	SHOOTING STYLE	FUR TYPE	MAJOR DISTRACTION
LeBron Meows	super jump	bounce tail	right pawed	sleek black fur	shiny flashlight
Catlin Clark	super jump	glowing sneakers	right pawed	orange tabby fur	spray bottle
Candace Pawker	super jump	bounce tail	left pawed	sleek black fur	spray bottle
Jimmy Scratcher	laser pounce	glowing sneakers	left pawed	sleek black fur	shiny flashlight
Julius Erwing	catnip blast	magnetic paws	left pawed	orange tabby fur	squeaky toy
Giannis Antetomeow	catnip blast	bounce tail	right pawed	sleek black fur	shiny flashlight
Stephen Furry	laser pounce	glowing sneakers	right pawed	orange tabby fur	spray bottle
Meowgik Johnson	yarn spin	glowing sneakers	right pawed	sleek black fur	shiny flashlight
Muggsy Pawgues	dribble dash	shadow cape	left pawed	calico patches	shiny flashlight
Larry Birdcat	dribble dash	bounce tail	right pawed	calico patches	squeaky toy
Yao Meow	yarn spin	shadow cape	right pawed	calico patches	shiny flashlight
Breanna Stewtail	laser pounce	shadow cape	right pawed	calico patches	spray bottle
Michael Clawdan	yarn spin	glowing sneakers	left pawed	sleek black fur	squeaky toy
Shaquille ONibble	super jump	whiskers radar	right pawed	sleek black fur	shiny flashlight
Diana Taurasqueak	dribble dash	magnetic paws	right pawed	sleek black fur	shiny flashlight
Luka Clawcic	catnip blast	glowing sneakers	right pawed	sleek black fur	squeaky toy
Nikola Jokitten	dribble dash	bounce tail	right pawed	orange tabby fur	spray bottle
Spud Webbclaw	dribble dash	bounce tail	left pawed	sleek black fur	shiny flashlight
Sue Birdy	yarn spin	bounce tail	right pawed	sleek black fur	squeaky toy
Kyrie Purving	catnip blast	whiskers radar	right pawed	sleek black fur	shiny flashlight
Dirk Nowitzclaw	catnip blast	bounce tail	right pawed	orange tabby fur	spray bottle

CLUE 1

Multiplication facts (1-12)

The thief left muddy pawprints in equal rows on the gym floor. We can multiply the rows to find how many steps they took to escape!

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

T			T																
56	20	54	56	20	80	54	72	7	66	54	5	36	66	56		20	24	100	54
								T											
24	63	66	144	36	33	54	56	24	80	88									

$8 \times 7 = \square \rightarrow \boxed{\text{T}}$

$9 \times 7 = \square \rightarrow \boxed{\text{B}}$

$8 \times 10 = \square \rightarrow \boxed{\text{I}}$

$8 \times 11 = \square \rightarrow \boxed{\text{L}}$

$4 \times 5 = \square \rightarrow \boxed{\text{H}}$

$6 \times 9 = \square \rightarrow \boxed{\text{E}}$

$1 \times 7 = \square \rightarrow \boxed{\text{D}}$

$8 \times 3 = \square \rightarrow \boxed{\text{A}}$

$10 \times 10 = \square \rightarrow \boxed{\text{V}}$

$12 \times 12 = \square \rightarrow \boxed{\text{U}}$

$11 \times 3 = \square \rightarrow \boxed{\text{C}}$

$8 \times 9 = \square \rightarrow \boxed{\text{F}}$

$6 \times 11 = \square \rightarrow \boxed{\text{O}}$

$1 \times 5 = \square \rightarrow \boxed{\text{S}}$

$3 \times 12 = \square \rightarrow \boxed{\text{N}}$

Scratch space:

CLUE 2 Rounding

The scoreboard clock caught the thief on camera, but the screen only shows rounded numbers. Let us round the estimate to read the true time!

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

T																			
430	1300	300	9000	110	300	370	70	2300	3000	170	300	2900	200	7000	90	90	4300	300	9000

		T		T						T				
700	7000	430	1300	430	1300	300	200	7000	1700	1300	430	5000	370	700

Round 428 to the nearest ten → **T**

Round 8,636 to the nearest thousand → **S**

Round 5,382 to the nearest thousand → **P**

Round 371 to the nearest ten → **A**

Round 108 to the nearest ten → **N**

Round 2,824 to the nearest thousand → **F**

Round 4,291 to the nearest hundred → **L**

Round 6,635 to the nearest thousand → **I**

Round 2,280 to the nearest hundred → **Y**

Round 1,684 to the nearest hundred → **G**

Round 312 to the nearest hundred → **E**

Round 168 to the nearest hundred → **R**

Round 2,905 to the nearest hundred → **D**

Round 74 to the nearest ten → **K**

Round 684 to the nearest hundred → **W**

Round 166 to the nearest ten → **O**

Round 89 to the nearest ten → **B**

Round 1,274 to the nearest hundred → **H**

Scratch space:

CLUE 3 Addition

We gathered all the dropped basketballs left near the lockers. Adding the piles together will reveal our next clue!

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

A								A											
5132	9232	3224	6130	6519	6261	6544	8971	5132	9232	3224	8971	6130	2960	3224	4410	2993	6130	8971	8971

9232	4410	3615	9385	4410	3224	8313	3053

$2933 + 2199 = \square \rightarrow \text{A}$	$5196 + 3117 = \square \rightarrow \text{E}$	$4997 + 4235 = \square \rightarrow \text{S}$
$1377 + 2238 = \square \rightarrow \text{O}$	$3755 + 2375 = \square \rightarrow \text{I}$	$1916 + 1308 = \square \rightarrow \text{H}$
$2965 + 3296 = \square \rightarrow \text{Y}$	$3775 + 5196 = \square \rightarrow \text{L}$	$2437 + 4082 = \square \rightarrow \text{N}$
$4898 + 4487 = \square \rightarrow \text{P}$	$2935 + 3609 = \square \rightarrow \text{F}$	$2873 + 1537 = \square \rightarrow \text{T}$
$1968 + 1025 = \square \rightarrow \text{W}$	$1676 + 1284 = \square \rightarrow \text{G}$	$1584 + 1469 = \square \rightarrow \text{M}$

Scratch space:

CLUE 4

Subtraction

The team gear trunk was raided during halftime. Subtracting the left behind jerseys from the starting total will tell us what the thief wore!

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

W														
8908	1400	2800	2442	1684	8963	2660	5909	2164	1400	1400	7667	8165	2164	4339
2800	1684	1833	2442	8963	5264	2807	1400	8165	4339	2164	2164			

$13904 - 4996 = \square \rightarrow \boxed{\text{W}}$

$5866 - 3059 = \square \rightarrow \boxed{\text{H}}$

$5710 - 1232 = \square \rightarrow \boxed{\text{C}}$

$3211 - 1378 = \square \rightarrow \boxed{\text{R}}$

$4366 - 2966 = \square \rightarrow \boxed{\text{E}}$

$10587 - 2422 = \square \rightarrow \boxed{\text{B}}$

$9015 - 52 = \square \rightarrow \boxed{\text{N}}$

$3041 - 241 = \square \rightarrow \boxed{\text{F}}$

$4951 - 2787 = \square \rightarrow \boxed{\text{L}}$

$8846 - 1179 = \square \rightarrow \boxed{\text{K}}$

$8204 - 3865 = \square \rightarrow \boxed{\text{A}}$

$6494 - 4810 = \square \rightarrow \boxed{\text{U}}$

$9031 - 3122 = \square \rightarrow \boxed{\text{S}}$

$3832 - 1172 = \square \rightarrow \boxed{\text{D}}$

$8693 - 3429 = \square \rightarrow \boxed{\text{T}}$

$4682 - 2240 = \square \rightarrow \boxed{\text{O}}$

Scratch space:

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

We need to divide our rookie search squad into equal feline teams so we can check every dark corner of the arena.

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:

$70 \div 7 = \boxed{}$

$44 \div 4 = \boxed{}$

$36 \div 3 = \boxed{}$

$2 \div 1 = \boxed{}$

$99 \div 11 = \boxed{}$

$7 \div 1 = \boxed{}$

$4 \div 4 = \boxed{}$

$80 \div 10 = \boxed{}$

$12 \div 3 = \boxed{}$

$10 \div 2 = \boxed{}$

$72 \div 12 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain unleashes a smelly catnip blast, then disappears into a dark shadow cape.
2. The villain does a super jump to the hoop, then bounces away on a springy tail.
3. The villain unleashes a smelly catnip blast, then tracks the exits with whiskers radar.
4. The villain leaps with a laser pounce, then tracks the exits with whiskers radar.
5. The villain leaps with a laser pounce, then bounces away on a springy tail.
6. The villain does a super jump to the hoop, then disappears into a dark shadow cape.
7. The villain leaps with a laser pounce, then speeds off in glowing sneakers.
8. The villain does a quick dribble dash, then bounces away on a springy tail.
9. The villain unleashes a smelly catnip blast, then speeds off in glowing sneakers.
10. The villain creates a wild yarn spin, then speeds off in glowing sneakers.
11. The villain does a quick dribble dash, then snatches the prize with magnetic paws.
12. The villain does a super jump to the hoop, then tracks the exits with whiskers radar.

Answer Key

The Big Hoop Catastrophe

Culprit: Kyrie Purving

catnip blast · whiskers radar · right pawed · sleek black fur · shiny flashlight

Trail: Start 21 → Clue 1 13 → Clue 2 9 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE THIEF DOES NOT HAVE A BOUNCE TAIL"

$8 \times 7 = 56$ (T) · $9 \times 7 = 63$ (B) · $8 \times 10 = 80$ (I) · $8 \times 11 = 88$ (L) · $4 \times 5 = 20$ (H) · $6 \times 9 = 54$ (E) · $1 \times 7 = 7$ (D) · $8 \times 3 = 24$ (A) · $10 \times 10 = 100$ (V) · $12 \times 12 = 144$ (U) · $11 \times 3 = 33$ (C) · $8 \times 9 = 72$ (F) · $6 \times 11 = 66$ (O) · $1 \times 5 = 5$ (S) · $3 \times 12 = 36$ (N)

Clue 2 (Rounding): "THE SNEAKY FOE DRIBBLES WITH THE RIGHT PAW"

Round 428 to the nearest ten = 430 (T) · Round 8,636 to the nearest thousand = 9000 (S) · Round 5,382 to the nearest thousand = 5000 (P) · Round 371 to the nearest ten = 370 (A) · Round 108 to the nearest ten = 110 (N) · Round 2,824 to the nearest thousand = 3000 (F) · Round 4,291 to the nearest hundred = 4300 (L) · Round 6,635 to the nearest thousand = 7000 (I) · Round 2,280 to the nearest hundred = 2300 (Y) · Round 1,684 to the nearest hundred = 1700 (G) · Round 312 to the nearest hundred = 300 (E) · Round 168 to the nearest hundred = 200 (R) · Round 2,905 to the nearest hundred = 2900 (D) · Round 74 to the nearest ten = 70 (K) · Round 684 to the nearest hundred = 700 (W) · Round 166 to the nearest ten = 170 (O) · Round 89 to the nearest ten = 90 (B) · Round 1,274 to the nearest hundred = 1300 (H)

Clue 3 (Addition): "A SHINY FLASHLIGHT WILL STOP THEM"

$2933 + 2199 = 5132$ (A) · $5196 + 3117 = 8313$ (E) · $4997 + 4235 = 9232$ (S) · $1377 + 2238 = 3615$ (O) · $3755 + 2375 = 6130$ (I) · $1916 + 1308 = 3224$ (H) · $2965 + 3296 = 6261$ (Y) · $3775 + 5196 = 8971$ (L) · $2437 + 4082 = 6519$ (N) · $4898 + 4487 = 9385$ (P) · $2935 + 3609 = 6544$ (F) · $2873 + 1537 = 4410$ (T) · $1968 + 1025 = 2993$ (W) · $1676 + 1284 = 2960$ (G) · $1584 + 1469 = 3053$ (M)

Clue 4 (Subtraction): "WE FOUND SLEEK BLACK FUR ON THE BALL"

$13904 - 4996 = 8908$ (W) · $5866 - 3059 = 2807$ (H) · $5710 - 1232 = 4478$ (C) · $3211 - 1378 = 1833$ (R) · $4366 - 2966 = 1400$ (E) · $10587 - 2422 = 8165$ (B) · $9015 - 52 = 8963$ (N) · $3041 - 241 = 2800$ (F) · $4951 - 2787 = 2164$ (L) · $8846 - 1179 = 7667$ (K) · $8204 - 3865 = 4339$ (A) · $6494 - 4810 = 1684$ (U) · $9031 - 3122 = 5909$ (S) · $3832 - 1172 = 2660$ (D) · $8693 - 3429 = 5264$ (T) · $4682 - 2240 = 2442$ (O)

Clue 5 (Division facts (1-12)): surviving statement is box 3 → Kyrie Purving

$70 \div 7 = 10$ · $44 \div 4 = 11$ · $36 \div 3 = 12$ · $2 \div 1 = 2$ · $99 \div 11 = 9$ · $7 \div 1 = 7$ · $4 \div 4 = 1$ · $80 \div 10 = 8$ · $12 \div 3 = 4$ · $10 \div 2 = 5$ · $72 \div 12 = 6$