



The Case of the Golden Catnip Trophy

Grade 5 math · Fractions of a number, Order of operations, Multiplication, Rounding, Division · Reading level grades 5-6

Detective: _____ Date: _____

The Grand Meow-politan Museum has been raided! The legendary Golden Catnip Trophy has vanished from its velvet cushion, leaving behind a trail of dusty paw prints. Dr. Purrington, the museum curator, needs your help. The suspect is one of twenty-four famous felines attending the annual Fancy Cat Gala. You must analyze the evidence, solve the math puzzles, and catch the thief before they slip away into the night!

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 Cat Burglar is _____

Possible suspects

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

NAME	SUPER SKILL	SECRET GADGET	DOMINANT PAW	FUR COAT STYLE	DISTRACTION WEAKNESS
Boots	Super High Jump	Noodle Squeak Toy	Left Pawed	Ginger Tabby Stripes	Squeaky Toy Sound
Sylvester	Super High Jump	Glider Squirrel Suit	Right Pawed	Ginger Tabby Stripes	Crinkly Foil Ball
Simba	Ultra Loud Purring	Catnip Smoke Bomb	Right Pawed	Tuxedo Black and White	Crinkly Foil Ball
Gizmo	Wall Climbing	Catnip Smoke Bomb	Left Pawed	Tuxedo Black and White	Squeaky Toy Sound
Oreo	Laser Eye Focus	Grappling Yarn Hook	Left Pawed	Ginger Tabby Stripes	Bright Laser Dot
Barnaby	Silent Prowling	Noodle Squeak Toy	Left Pawed	Tuxedo Black and White	Squeaky Toy Sound
Whiskers	Silent Prowling	Glider Squirrel Suit	Left Pawed	Tuxedo Black and White	Squeaky Toy Sound
Oliver	Wall Climbing	Micro Laser Pointer	Right Pawed	Calico Patches	Crinkly Foil Ball
Socks	Wall Climbing	Catnip Smoke Bomb	Right Pawed	Tuxedo Black and White	Crinkly Foil Ball
Penelope	Laser Eye Focus	Glider Squirrel Suit	Right Pawed	Tuxedo Black and White	Bright Laser Dot
Luna	Wall Climbing	Catnip Smoke Bomb	Right Pawed	Tuxedo Black and White	Squeaky Toy Sound
Felix	Ultra Loud Purring	Grappling Yarn Hook	Right Pawed	Tuxedo Black and White	Crinkly Foil Ball
Tom	Super High Jump	Noodle Squeak Toy	Right Pawed	Calico Patches	Crinkly Foil Ball
Tigger	Silent Prowling	Catnip Smoke Bomb	Right Pawed	Tuxedo Black and White	Crinkly Foil Ball
Rusty	Ultra Loud Purring	Glider Squirrel Suit	Left Pawed	Tuxedo Black and White	Squeaky Toy Sound
Garfield	Silent Prowling	Catnip Smoke Bomb	Left Pawed	Tuxedo Black and White	Crinkly Foil Ball
Milo	Silent Prowling	Grappling Yarn Hook	Left Pawed	Tuxedo Black and White	Crinkly Foil Ball
Duchess	Laser Eye Focus	Micro Laser Pointer	Right Pawed	Calico Patches	Squeaky Toy Sound
Bella	Laser Eye Focus	Glider Squirrel Suit	Right Pawed	Tuxedo Black and White	Crinkly Foil Ball
Chloe	Super High Jump	Grappling Yarn Hook	Right Pawed	Calico Patches	Crinkly Foil Ball
Mittens	Wall Climbing	Glider Squirrel Suit	Right Pawed	Calico Patches	Squeaky Toy Sound

CLUE 1

Fractions of a number

We found a torn blueprint of the museum's layout. Only a fraction of the rooms have security cameras, and the stolen map shows exactly how many are active. Let's calculate that fraction to uncover our first clue about the thief's gear!

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

T							T								T	
26	36	22	9	11	9	34	22	29	26	5	10	22	9	18	10	26

															T
11	9	22	16	9	39	11	14	33	33	22	21	9	11	14	26

$4/10 \text{ of } 65 = \boxed{} \rightarrow \boxed{\text{T}}$

$1/2 \text{ of } 44 = \boxed{} \rightarrow \boxed{\text{E}}$

$2/4 \text{ of } 58 = \boxed{} \rightarrow \boxed{\text{C}}$

$4/10 \text{ of } 35 = \boxed{} \rightarrow \boxed{\text{I}}$

$2/3 \text{ of } 15 = \boxed{} \rightarrow \boxed{\text{O}}$

$1/4 \text{ of } 44 = \boxed{} \rightarrow \boxed{\text{U}}$

$3/6 \text{ of } 36 = \boxed{} \rightarrow \boxed{\text{N}}$

$2/6 \text{ of } 102 = \boxed{} \rightarrow \boxed{\text{P}}$

$2/8 \text{ of } 84 = \boxed{} \rightarrow \boxed{\text{L}}$

$8/10 \text{ of } 45 = \boxed{} \rightarrow \boxed{\text{H}}$

$5/8 \text{ of } 8 = \boxed{} \rightarrow \boxed{\text{D}}$

$1/4 \text{ of } 64 = \boxed{} \rightarrow \boxed{\text{A}}$

$6/10 \text{ of } 15 = \boxed{} \rightarrow \boxed{\text{S}}$

$2/4 \text{ of } 66 = \boxed{} \rightarrow \boxed{\text{R}}$

$1/3 \text{ of } 117 = \boxed{} \rightarrow \boxed{\text{Q}}$

Scratch space:

CLUE 2
Order of operations

To bypass the museum's digital security safe, the thief entered a scrambled mathematical code. By solving this order of operations puzzle, we can crack the code and discover how the culprit moved during the heist!

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

T										T									
69	10	24	65	43	52	63	24	28	69	15	43	55	10	20	10	11	63		
				T									T						T
15	7	65	10	69	55	11	79	55	15	7	28	69	53	43	28	7	69		

$6 + 7 \times 9 = \square \rightarrow \boxed{\text{T}}$

$11 \times 7 - 12 = \square \rightarrow \boxed{\text{G}}$

$1 + 2 \times 3 = \square \rightarrow \boxed{\text{I}}$

$11 \times 2 - 7 = \square \rightarrow \boxed{\text{R}}$

$6 \times 4 - 4 = \square \rightarrow \boxed{\text{Y}}$

$7 + 6 \times 8 = \square \rightarrow \boxed{\text{P}}$

$9 \times 6 - 1 = \square \rightarrow \boxed{\text{S}}$

$5 \times 7 - 11 = \square \rightarrow \boxed{\text{E}}$

$16 + 7 \times 9 = \square \rightarrow \boxed{\text{W}}$

$4 + 2 \times 3 = \square \rightarrow \boxed{\text{H}}$

$5 \times 7 - 24 = \square \rightarrow \boxed{\text{A}}$

$11 \times 4 - 16 = \square \rightarrow \boxed{\text{N}}$

$7 \times 12 - 21 = \square \rightarrow \boxed{\text{D}}$

$28 + 5 \times 3 = \square \rightarrow \boxed{\text{O}}$

$27 + 5 \times 5 = \square \rightarrow \boxed{\text{L}}$

Scratch space:

CLUE 3

Multiplication facts (1-12)

The thief dropped a pack of luxury treats during the escape, arranged in neat rows. If we multiply the rows of treats, we can figure out the total weight and reveal a secret clue about the culprit's hair!

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

C															
9	70	108	48	11	40	132	35	72	108	40	96	60	40	40	24
	C									C					
24	9	60	70	144	1	32	66	144	9	60	32	60	81	60	132

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

$11 \times 12 = \square \rightarrow \boxed{\text{Y}}$

$5 \times 8 = \square \rightarrow \boxed{\text{L}}$

$12 \times 9 = \square \rightarrow \boxed{\text{I}}$

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

$4 \times 8 = \square \rightarrow \boxed{\text{T}}$

$7 \times 5 = \square \rightarrow \boxed{\text{F}}$

$4 \times 12 = \square \rightarrow \boxed{\text{N}}$

$8 \times 12 = \square \rightarrow \boxed{\text{B}}$

$10 \times 6 = \square \rightarrow \boxed{\text{A}}$

$9 \times 9 = \square \rightarrow \boxed{\text{W}}$

$10 \times 7 = \square \rightarrow \boxed{\text{R}}$

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

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

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

$12 \times 2 = \square \rightarrow \boxed{\text{S}}$

$11 \times 1 = \square \rightarrow \boxed{\text{K}}$

Scratch space:

CLUE 4 Rounding

The museum's motion sensors recorded the thief's speed, but the old digital screen only displays rounded numbers. Round the recorded speed to the nearest ten to unlock the data about their physical traits!

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

B																			
900	3000	1300	110	2000	1300	70	430	2900	4300	30	9000	170	230	290	130	2900	1300	50	
3000	170	230	9000	1300	9000	9000	4300	170	50	110	170	70	170						

Round 936 to the nearest hundred → **B**

Round 34 to the nearest ten → **I**

Round 4,272 to the nearest hundred → **H**

Round 2,872 to the nearest hundred → **W**

Round 229 to the nearest ten → **F**

Round 107 to the nearest ten → **C**

Round 9,388 to the nearest thousand → **T**

Round 2,256 to the nearest thousand → **K**

Round 434 to the nearest ten → **D**

Round 1,284 to the nearest hundred → **A**

Round 68 to the nearest ten → **N**

Round 169 to the nearest ten → **E**

Round 2,638 to the nearest thousand → **L**

Round 46 to the nearest ten → **S**

Round 292 to the nearest ten → **U**

Round 126 to the nearest ten → **R**

Scratch space:

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

The museum guards are dividing up the leftover catnip treats to keep themselves awake for the night shift. Once we divide the treats equally, the remaining clue will reveal the villain's ultimate weakness!

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:

$56 \div 7 = \boxed{}$

$18 \div 3 = \boxed{}$

$88 \div 8 = \boxed{}$

$24 \div 8 = \boxed{}$

$4 \div 1 = \boxed{}$

$28 \div 4 = \boxed{}$

$18 \div 9 = \boxed{}$

$45 \div 5 = \boxed{}$

$108 \div 9 = \boxed{}$

$60 \div 6 = \boxed{}$

$12 \div 12 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain leaped over the security beams, then glided down from the ceiling in a suit.
2. The villain leaped over the security beams, then used a micro laser to cut the glass.
3. The villain purred loudly to scramble the audio sensor, then used a micro laser to cut the glass.
4. The villain crept past the sleeping guard dog, then tossed a squeaky toy to distract the guard.
5. The villain climbed up the high museum walls, then dropped a catnip smoke bomb to escape.
6. The villain purred loudly to scramble the audio sensor, then swung away on a grappling yarn hook.
7. The villain focused on the security pad lock, then dropped a catnip smoke bomb to escape.
8. The villain crept past the sleeping guard dog, then dropped a catnip smoke bomb to escape.
9. The villain leaped over the security beams, then dropped a catnip smoke bomb to escape.
10. The villain crept past the sleeping guard dog, then used a micro laser to cut the glass.
11. The villain purred loudly to scramble the audio sensor, then dropped a catnip smoke bomb to escape.
12. The villain climbed up the high museum walls, then used a micro laser to cut the glass.

Answer Key

The Case of the Golden Catnip Trophy

Culprit: Socks

Wall Climbing · Catnip Smoke Bomb · Right Pawed · Tuxedo Black and White · Crinkly Foil Ball

Trail: Start 21 → Clue 1 15 → Clue 2 9 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Fractions of a number): "THE SUSPECT DOES NOT USE A SQUIRREL SUIT"

$4/10$ of 65 = 26 (T) · $1/2$ of 44 = 22 (E) · $2/4$ of 58 = 29 (C) · $4/10$ of 35 = 14 (I) · $2/3$ of 15 = 10 (O) · $1/4$ of 44 = 11 (U) · $3/6$ of 36 = 18 (N) · $2/6$ of 102 = 34 (P) · $2/8$ of 84 = 21 (L) · $8/10$ of 45 = 36 (H) · $5/8$ of 8 = 5 (D) · $1/4$ of 64 = 16 (A) · $6/10$ of 15 = 9 (S) · $2/4$ of 66 = 33 (R) · $1/3$ of 117 = 39 (Q)

Clue 2 (Order of operations): "THE GOLDEN TROPHY HAD RIGHT PAW PRINTS ON IT"

$6 + 7 \times 9 = 69$ (T) · $11 \times 7 - 12 = 65$ (G) · $1 + 2 \times 3 = 7$ (I) · $11 \times 2 - 7 = 15$ (R) · $6 \times 4 - 4 = 20$ (Y) · $7 + 6 \times 8 = 55$ (P) · $9 \times 6 - 1 = 53$ (S) · $5 \times 7 - 11 = 24$ (E) · $16 + 7 \times 9 = 79$ (W) · $4 + 2 \times 3 = 10$ (H) · $5 \times 7 - 24 = 11$ (A) · $11 \times 4 - 16 = 28$ (N) · $7 \times 12 - 21 = 63$ (D) · $28 + 5 \times 3 = 43$ (O) · $27 + 5 \times 5 = 52$ (L)

Clue 3 (Multiplication facts (1-12)): "CRINKLY FOIL BALLS SCARED THE CAT AWAY"

$3 \times 3 = 9$ (C) · $11 \times 12 = 132$ (Y) · $5 \times 8 = 40$ (L) · $12 \times 9 = 108$ (I) · $8 \times 9 = 72$ (O) · $4 \times 8 = 32$ (T) · $7 \times 5 = 35$ (F) · $4 \times 12 = 48$ (N) · $8 \times 12 = 96$ (B) · $10 \times 6 = 60$ (A) · $9 \times 9 = 81$ (W) · $10 \times 7 = 70$ (R) · $12 \times 12 = 144$ (E) · $6 \times 11 = 66$ (H) · $1 \times 1 = 1$ (D) · $12 \times 2 = 24$ (S) · $11 \times 1 = 11$ (K)

Clue 4 (Rounding): "BLACK AND WHITE FUR WAS LEFT AT THE SCENE"

Round 936 to the nearest hundred = 900 (B) · Round 34 to the nearest ten = 30 (I) · Round 4,272 to the nearest hundred = 4300 (H) · Round 2,872 to the nearest hundred = 2900 (W) · Round 229 to the nearest ten = 230 (F) · Round 107 to the nearest ten = 110 (C) · Round 9,388 to the nearest thousand = 9000 (T) · Round 2,256 to the nearest thousand = 2000 (K) · Round 434 to the nearest ten = 430 (D) · Round 1,284 to the nearest hundred = 1300 (A) · Round 68 to the nearest ten = 70 (N) · Round 169 to the nearest ten = 170 (E) · Round 2,638 to the nearest thousand = 3000 (L) · Round 46 to the nearest ten = 50 (S) · Round 292 to the nearest ten = 290 (U) · Round 126 to the nearest ten = 130 (R)

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

$56 \div 7 = 8$ · $18 \div 3 = 6$ · $88 \div 8 = 11$ · $24 \div 8 = 3$ · $4 \div 1 = 4$ · $28 \div 4 = 7$ · $18 \div 9 = 2$ · $45 \div 5 = 9$ · $108 \div 9 = 12$ · $60 \div 6 = 10$ · $12 \div 12 = 1$