



The Great Purrfect Paws Cat Caper

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

Detective: _____ Date: _____

Someone snuck into the Purrfect Paws Feline Sanctuary after dark and opened the main treat vault. Clues were left behind all over the grooming room and climbing towers. The detective team must examine the evidence to figure out which curious cat is behind the midnight raid.

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	CAT SPECIALTY	FAVORITE TOY	PAW DOMINANCE	FUR COAT	FAVORITE SNACK
Figaro	Slipper Swiper	Laser Pointer	Right Pawed	Calico Coat	Warm Milk
Simba	Vault Opener	Laser Pointer	Right Pawed	Tabby Coat	Catnip Snack
Hazel	Silent Stalker	Yarn Ball	Right Pawed	Tabby Coat	Tuna Treat
Milo	Silent Stalker	Crinkle Paper	Right Pawed	Tabby Coat	Warm Milk
Peanut	Curious Prowler	Feather Wand	Right Pawed	Calico Coat	Warm Milk
Mochi	Curious Prowler	Feather Wand	Left Pawed	Tabby Coat	Catnip Snack
Bella	Curious Prowler	Crinkle Paper	Right Pawed	Tuxedo Coat	Warm Milk
Whiskers	Curious Prowler	Laser Pointer	Left Pawed	Calico Coat	Warm Milk
Salem	Slipper Swiper	Feather Wand	Right Pawed	Calico Coat	Warm Milk
Duchess	Vault Opener	Catnip Mouse	Right Pawed	Calico Coat	Catnip Snack
Felix	High Jumper	Yarn Ball	Right Pawed	Calico Coat	Warm Milk
Patches	Slipper Swiper	Yarn Ball	Left Pawed	Tuxedo Coat	Catnip Snack
Tom	Slipper Swiper	Catnip Mouse	Right Pawed	Calico Coat	Warm Milk
Penelope	Silent Stalker	Catnip Mouse	Right Pawed	Tuxedo Coat	Tuna Treat
Sylvester	Slipper Swiper	Laser Pointer	Right Pawed	Tuxedo Coat	Warm Milk
Cleo	Slipper Swiper	Laser Pointer	Right Pawed	Tabby Coat	Catnip Snack
Garfield	High Jumper	Laser Pointer	Right Pawed	Calico Coat	Tuna Treat
Socks	Slipper Swiper	Feather Wand	Left Pawed	Tabby Coat	Tuna Treat
Jasper	Silent Stalker	Crinkle Paper	Right Pawed	Calico Coat	Tuna Treat
Mittens	Vault Opener	Catnip Mouse	Left Pawed	Tabby Coat	Catnip Snack
Cheshire	Silent Stalker	Laser Pointer	Right Pawed	Tuxedo Coat	Tuna Treat

CLUE 1
Fractions of a number

The head keeper calculates fraction portions of cat food remaining in the pantry to narrow down the scene.

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

T																	
12	23	32	25	27	32	8	5	4	28	4	27	33	12	19	24	8	38

		T											
14	28	12	23	8	38	8	22	27	34	8	24	24	

$2/3 \text{ of } 18 = \square \rightarrow \boxed{\text{T}}$

$2/4 \text{ of } 44 = \square \rightarrow \boxed{\text{R}}$

$2/6 \text{ of } 24 = \square \rightarrow \boxed{\text{A}}$

$2/8 \text{ of } 128 = \square \rightarrow \boxed{\text{E}}$

$8/10 \text{ of } 35 = \square \rightarrow \boxed{\text{I}}$

$5/10 \text{ of } 38 = \square \rightarrow \boxed{\text{P}}$

$4/5 \text{ of } 30 = \square \rightarrow \boxed{\text{L}}$

$7/8 \text{ of } 16 = \square \rightarrow \boxed{\text{W}}$

$1/2 \text{ of } 68 = \square \rightarrow \boxed{\text{B}}$

$1/5 \text{ of } 190 = \square \rightarrow \boxed{\text{Y}}$

$4/8 \text{ of } 8 = \square \rightarrow \boxed{\text{D}}$

$2/6 \text{ of } 69 = \square \rightarrow \boxed{\text{H}}$

$5/8 \text{ of } 40 = \square \rightarrow \boxed{\text{S}}$

$3/5 \text{ of } 45 = \square \rightarrow \boxed{\text{N}}$

$2/8 \text{ of } 20 = \square \rightarrow \boxed{\text{K}}$

$5/10 \text{ of } 66 = \square \rightarrow \boxed{\text{O}}$

Scratch space:

CLUE 2

Order of operations

A mysterious puzzle box found in the lobby requires solving multi step operations to reveal a hidden note.

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

R										R								R	
79	69	15	43	41	11	66	26	11	79	69	59	41	6	26	63	79	63		
10	63	39	41	59	63	66	79	41	43	63	6	69	59	52					

$61 + 9 \times 2 = \square \rightarrow \boxed{\text{R}}$

$5 \times 6 - 15 = \square \rightarrow \boxed{\text{G}}$

$25 + 8 \times 2 = \square \rightarrow \boxed{\text{T}}$

$5 + 2 \times 3 = \square \rightarrow \boxed{\text{P}}$

$34 + 2 \times 9 = \square \rightarrow \boxed{\text{K}}$

$6 \times 8 - 9 = \square \rightarrow \boxed{\text{F}}$

$11 + 4 \times 8 = \square \rightarrow \boxed{\text{H}}$

$21 + 5 \times 9 = \square \rightarrow \boxed{\text{A}}$

$10 \times 7 - 1 = \square \rightarrow \boxed{\text{I}}$

$8 \times 10 - 21 = \square \rightarrow \boxed{\text{N}}$

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

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

$8 + 6 \times 3 = \square \rightarrow \boxed{\text{W}}$

$8 \times 8 - 1 = \square \rightarrow \boxed{\text{E}}$

Scratch space:

CLUE 3

Multiplication facts (1-12)

The investigative team counts rows of cat towers and toys to calculate total evidence items.

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

S																		S
32	72	20	35	35	12	96	9	60	50	49	49	20	35	4	9	60	32	

70	1	63	42	96	42	12	60	50	5	60	42	4		

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

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

$1 \times 12 = \square \rightarrow \boxed{\text{E}}$

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

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

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

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

$1 \times 4 = \square \rightarrow \boxed{\text{K}}$

$1 \times 9 = \square \rightarrow \boxed{\text{W}}$

$5 \times 10 = \square \rightarrow \boxed{\text{R}}$

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

$2 \times 10 = \square \rightarrow \boxed{\text{I}}$

$12 \times 5 = \square \rightarrow \boxed{\text{A}}$

$7 \times 6 = \square \rightarrow \boxed{\text{N}}$

$6 \times 12 = \square \rightarrow \boxed{\text{P}}$

$7 \times 7 = \square \rightarrow \boxed{\text{M}}$

Scratch space:

CLUE 4

Rounding

The motion sensors recorded approximate distances, so rounding the numbers reveals the suspect path.

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

A					A							A	
370	50	3000	2300	170	370	30	300	170	500	170	500	370	1700
			A										
2000	1700	430	370	230	200	2000	2300	3000	430	3000	30	3000	50

Round 373 to the nearest ten → **A**

Round 231 to the nearest ten → **N**

Round 273 to the nearest hundred → **I**

Round 54 to the nearest ten → **F**

Round 430 to the nearest ten → **R**

Round 2,328 to the nearest hundred → **W**

Round 187 to the nearest hundred → **D**

Round 1,680 to the nearest hundred → **T**

Round 1,847 to the nearest thousand → **S**

Round 30 to the nearest ten → **L**

Round 532 to the nearest hundred → **O**

Round 2,889 to the nearest thousand → **E**

Round 170 to the nearest ten → **C**

Scratch space:

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

Dividing treat jars equally among the shelter rooms gives the final clue about the suspect.

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:

$5 \div 1 = \boxed{}$

$5 \div 5 = \boxed{}$

$24 \div 3 = \boxed{}$

$132 \div 11 = \boxed{}$

$22 \div 11 = \boxed{}$

$24 \div 4 = \boxed{}$

$44 \div 4 = \boxed{}$

$81 \div 9 = \boxed{}$

$49 \div 7 = \boxed{}$

$28 \div 7 = \boxed{}$

$10 \div 1 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain swiped a pair of soft slippers, then batted at a colorful feather wand.
2. The villain swiped a pair of soft slippers, then pounced on a piece of crinkle paper.
3. The villain swiped a pair of soft slippers, then followed a flashing laser pointer.
4. The villain stalked quietly through the hallway, then batted at a colorful feather wand.
5. The villain swiped a pair of soft slippers, then chased a fluffy catnip mouse.
6. The villain prowled around the scratching posts, then followed a flashing laser pointer.
7. The villain prowled around the scratching posts, then unraveled a giant yarn ball.
8. The villain prowled around the scratching posts, then batted at a colorful feather wand.
9. The villain stalked quietly through the hallway, then chased a fluffy catnip mouse.
10. The villain jumped over the tall sanctuary fence, then pounced on a piece of crinkle paper.
11. The villain unlatched the locked treat vault, then pounced on a piece of crinkle paper.
12. The villain unlatched the locked treat vault, then batted at a colorful feather wand.

Answer Key

The Great Purrfect Paws Cat Caper

Culprit: Figaro

Slipper Swiper · Laser Pointer · Right Pawed · Calico Coat · Warm Milk

Trail: Start 21 → Clue 1 18 → Clue 2 14 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Fractions of a number): "THE SNEAK DID NOT PLAY WITH A YARN BALL"

$\frac{2}{3}$ of 18 = 12 (T) · $\frac{2}{4}$ of 44 = 22 (R) · $\frac{2}{6}$ of 24 = 8 (A) · $\frac{2}{8}$ of 128 = 32 (E) · $\frac{8}{10}$ of 35 = 28 (I) · $\frac{5}{10}$ of 38 = 19 (P) · $\frac{4}{5}$ of 30 = 24 (L) · $\frac{7}{8}$ of 16 = 14 (W) · $\frac{1}{2}$ of 68 = 34 (B) · $\frac{1}{5}$ of 190 = 38 (Y) · $\frac{4}{8}$ of 8 = 4 (D) · $\frac{2}{6}$ of 69 = 23 (H) · $\frac{5}{8}$ of 40 = 25 (S) · $\frac{3}{5}$ of 45 = 27 (N) · $\frac{2}{8}$ of 20 = 5 (K) · $\frac{5}{10}$ of 66 = 33 (O)

Clue 2 (Order of operations): "RIGHT PAW PRINTS WERE LEFT NEAR THE SINK"

$61 + 9 \times 2 = 79$ (R) · $5 \times 6 - 15 = 15$ (G) · $25 + 8 \times 2 = 41$ (T) · $5 + 2 \times 3 = 11$ (P) · $34 + 2 \times 9 = 52$ (K) · $6 \times 8 - 9 = 39$ (F) · $11 + 4 \times 8 = 43$ (H) · $21 + 5 \times 9 = 66$ (A) · $10 \times 7 - 1 = 69$ (I) · $8 \times 10 - 21 = 59$ (N) · $2 + 2 \times 2 = 6$ (S) · $2 + 4 \times 2 = 10$ (L) · $8 + 6 \times 3 = 26$ (W) · $8 \times 8 - 1 = 63$ (E)

Clue 3 (Multiplication facts (1-12)): "SPILLED WARM MILK WAS FOUND NEAR TANK"

$4 \times 8 = 32$ (S) · $10 \times 7 = 70$ (F) · $1 \times 12 = 12$ (E) · $8 \times 12 = 96$ (D) · $9 \times 7 = 63$ (U) · $1 \times 5 = 5$ (T) · $7 \times 5 = 35$ (L) · $1 \times 4 = 4$ (K) · $1 \times 9 = 9$ (W) · $5 \times 10 = 50$ (R) · $1 \times 1 = 1$ (O) · $2 \times 10 = 20$ (I) · $12 \times 5 = 60$ (A) · $7 \times 6 = 42$ (N) · $6 \times 12 = 72$ (P) · $7 \times 7 = 49$ (M)

Clue 4 (Rounding): "A FEW CALICO COAT STRANDS WERE LEFT"

Round 373 to the nearest ten = 370 (A) · Round 231 to the nearest ten = 230 (N) · Round 273 to the nearest hundred = 300 (I) · Round 54 to the nearest ten = 50 (F) · Round 430 to the nearest ten = 430 (R) · Round 2,328 to the nearest hundred = 2300 (W) · Round 187 to the nearest hundred = 200 (D) · Round 1,680 to the nearest hundred = 1700 (T) · Round 1,847 to the nearest thousand = 2000 (S) · Round 30 to the nearest ten = 30 (L) · Round 532 to the nearest hundred = 500 (O) · Round 2,889 to the nearest thousand = 3000 (E) · Round 170 to the nearest ten = 170 (C)

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

$5 \div 1 = 5$ · $5 \div 5 = 1$ · $24 \div 3 = 8$ · $132 \div 11 = 12$ · $22 \div 11 = 2$ · $24 \div 4 = 6$ · $44 \div 4 = 11$ · $81 \div 9 = 9$ · $49 \div 7 = 7$ · $28 \div 7 = 4$ · $10 \div 1 = 10$