



The Great Whisker Haven Mystery

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

Detective: _____ Date: _____

Someone snuck into the Purrfect Pines Cat Sanctuary last night and hid all the prize catnip mice! Detective Pawprint needs your help to crack the code and find the culprit.

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 Prowler is _____

Possible suspects

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

NAME	FAVORITE TOY	FAVORITE SNACK	COLLAR BELL	FUR PATTERN	DISTRACTION
Smokey	Feather Wand	Cat Grass	Silver Bell	Solid Black	Flashlight Beam
Oreo	Laser Pointer	Cat Grass	Gold Bell	Orange Tabby	Squeaky Toy
Bella	Catnip Mouse	Warm Milk	Silver Bell	Orange Tabby	Crinkle Paper
Felix	Catnip Mouse	Warm Milk	Silver Bell	Solid Black	Squeaky Toy
Tiger	Laser Pointer	Salmon Treats	Gold Bell	Orange Tabby	Flashlight Beam
Gizmo	Scratch Post	Cat Grass	Gold Bell	Orange Tabby	Crinkle Paper
Barnaby	Feather Wand	Cat Grass	Silver Bell	Orange Tabby	Flashlight Beam
Milo	Laser Pointer	Warm Milk	Gold Bell	Orange Tabby	Flashlight Beam
Penelope	Laser Pointer	Chicken Paste	Silver Bell	Solid Black	Crinkle Paper
Hazel	Yarn Ball	Salmon Treats	Gold Bell	Calico Stripes	Crinkle Paper
Peanut	Feather Wand	Tuna Bites	Silver Bell	Orange Tabby	Flashlight Beam
Leo	Feather Wand	Warm Milk	Gold Bell	Solid Black	Crinkle Paper
Socks	Yarn Ball	Cat Grass	Gold Bell	Orange Tabby	Flashlight Beam
Nala	Feather Wand	Tuna Bites	Gold Bell	Orange Tabby	Flashlight Beam
Shadow	Scratch Post	Salmon Treats	Gold Bell	Calico Stripes	Flashlight Beam
Whiskers	Laser Pointer	Salmon Treats	Silver Bell	Orange Tabby	Flashlight Beam
Oliver	Feather Wand	Chicken Paste	Silver Bell	Calico Stripes	Squeaky Toy
Simba	Catnip Mouse	Chicken Paste	Gold Bell	Orange Tabby	Flashlight Beam
Ziggy	Scratch Post	Cat Grass	Gold Bell	Solid Black	Flashlight Beam
Luna	Yarn Ball	Salmon Treats	Silver Bell	Orange Tabby	Crinkle Paper
Charlie	Scratch Post	Warm Milk	Silver Bell	Calico Stripes	Flashlight Beam

CLUE 1 Place value

Detective Pawprint inspects the number codes carved into the cat tree. Understanding the hundreds place reveals your first clue.

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

T																			
50	600	80	300	800	80	200	900	8000	3000	9000	4000	2000	500	80	9000	60	70	60	
		T																	
800	4000	50	60	9000	70	800	900	2000	200	9000	1000	1000	70	500	900				

What is the value of the 5 in 357? → **T**

What is the value of the 3 in 93,905? → **P**

What is the value of the 2 in 92,459? → **W**

What is the value of the 9 in 5,928? → **K**

What is the value of the 9 in 9,434? → **R**

What is the value of the 5 in 568? → **L**

What is the value of the 8 in 486? → **E**

What is the value of the 7 in 3,676? → **I**

What is the value of the 1 in 41,563? → **M**

What is the value of the 6 in 8,697? → **H**

What is the value of the 2 in 287? → **A**

What is the value of the 6 in 7,364? → **D**

What is the value of the 8 in 48,640? → **Y**

What is the value of the 8 in 866? → **N**

What is the value of the 3 in 371? → **S**

What is the value of the 4 in 4,667? → **O**

Scratch space:

CLUE 2 Addition

The detective adds up all the kibble bowls counted in the storage room to track where the intruder walked.

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

A														
5289	3701	5673	8089	4381	8272	4113	4381	6328	3408	8306	3701	2589	3408	3408

													A				A	
6678	8089	5426	4381	3408	2589	8306	8089	5426	4113	8272	2589	8272	5289	3408	3408	9885	5289	3676

$1681 + 3608 = \square \rightarrow \mathbf{A}$

$3346 + 4743 = \square \rightarrow \mathbf{I}$

$4194 + 4078 = \square \rightarrow \mathbf{H}$

$2449 + 1252 = \square \rightarrow \mathbf{B}$

$2968 + 1413 = \square \rightarrow \mathbf{G}$

$2259 + 1417 = \square \rightarrow \mathbf{Y}$

$4387 + 2291 = \square \rightarrow \mathbf{J}$

$4605 + 5280 = \square \rightarrow \mathbf{W}$

$2489 + 2937 = \square \rightarrow \mathbf{N}$

$1143 + 1446 = \square \rightarrow \mathbf{E}$

$2962 + 3366 = \square \rightarrow \mathbf{O}$

$1290 + 2118 = \square \rightarrow \mathbf{L}$

$2337 + 3336 = \square \rightarrow \mathbf{R}$

$4196 + 4110 = \square \rightarrow \mathbf{D}$

$2795 + 1318 = \square \rightarrow \mathbf{T}$

Scratch space:

CLUE 3
Subtraction

Comparing the total fish treats before and after the raid shows how many went missing.

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

T									T								
7108	4973	4911	3437	3632	1688	3355	8349	4394	7108	3437	4973	3860	4105	4911	8479	3860	

					T										T				
7929	8349	4394	1323	4973	7108	3767	1688	3860	4105	4973	1688	4394	1323	4973	7108	7929	4911	3860	2841

$11027 - 3919 = \square \rightarrow \text{**T**}$

$8997 - 4892 = \square \rightarrow \text{**S**}$

$3340 - 2017 = \square \rightarrow \text{**G**}$

$8202 - 4847 = \square \rightarrow \text{**P**}$

$6797 - 3165 = \square \rightarrow \text{**U**}$

$12230 - 3751 = \square \rightarrow \text{**D**}$

$10630 - 2701 = \square \rightarrow \text{**B**}$

$4251 - 1410 = \square \rightarrow \text{**M**}$

$4556 - 789 = \square \rightarrow \text{**F**}$

$4613 - 219 = \square \rightarrow \text{**I**}$

$4889 - 1029 = \square \rightarrow \text{**A**}$

$10694 - 2345 = \square \rightarrow \text{**R**}$

$3552 - 1864 = \square \rightarrow \text{**L**}$

$4865 - 1428 = \square \rightarrow \text{**C**}$

$5064 - 153 = \square \rightarrow \text{**E**}$

$6273 - 1300 = \square \rightarrow \text{**H**}$

Scratch space:

CLUE 4 Rounding

The shelter security screen only displays rounded cat nap times on its digital timer.

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

O																	
2900	50	2300	130	20	170	500	2300	7000	7000	3700	70	1700	50	2000	2300	3000	
							O						O	O			
3000	130	2300	20	20	170	30	2900	130	500	5000	170	30	2900	2900	50		

Round 2,929 to the nearest hundred → **O**

Round 67 to the nearest ten → **F**

Round 5,321 to the nearest thousand → **H**

Round 53 to the nearest ten → **R**

Round 126 to the nearest ten → **N**

Round 2,270 to the nearest hundred → **A**

Round 506 to the nearest hundred → **T**

Round 3,155 to the nearest thousand → **S**

Round 7,083 to the nearest thousand → **B**

Round 3,743 to the nearest hundred → **Y**

Round 2,481 to the nearest thousand → **W**

Round 170 to the nearest ten → **E**

Round 30 to the nearest ten → **D**

Round 1,698 to the nearest hundred → **U**

Round 21 to the nearest ten → **G**

Scratch space:

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

Sharing the rescued toys equally among the foster kittens helps uncover the final clue.

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:

$90 \div 10 = \square$

$6 \div 1 = \square$

$27 \div 9 = \square$

$80 \div 8 = \square$

$35 \div 5 = \square$

$20 \div 5 = \square$

$108 \div 9 = \square$

$12 \div 12 = \square$

$11 \div 1 = \square$

$5 \div 1 = \square$

$64 \div 8 = \square$

Step 2 - cross out the sentence with each answer:

1. The villain scratched a scratch post, then gobbled tuna bites.
2. The villain rolled a yarn ball, then chewed cat grass.
3. The villain flashed a laser pointer, then munched salmon treats.
4. The villain swiped a catnip mouse, then chewed cat grass.
5. The villain swiped a catnip mouse, then sipped warm milk.
6. The villain swung a feather wand, then gobbled tuna bites.
7. The villain flashed a laser pointer, then gobbled tuna bites.
8. The villain rolled a yarn ball, then munched salmon treats.
9. The villain swiped a catnip mouse, then tasted chicken paste.
10. The villain swiped a catnip mouse, then munched salmon treats.
11. The villain swung a feather wand, then munched salmon treats.
12. The villain rolled a yarn ball, then tasted chicken paste.

Answer Key

The Great Whisker Haven Mystery

Culprit: Socks

Yarn Ball · Cat Grass · Gold Bell · Orange Tabby · Flashlight Beam

Trail: Start 21 → Clue 1 16 → Clue 2 9 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE SNEAKY PROWLER DID NOT DRINK WARM MILK"

What is the value of the 5 in 357? = 50 (T) · What is the value of the 3 in 93,905? = 3000 (P) · What is the value of the 2 in 92,459? = 2000 (W) · What is the value of the 9 in 5,928? = 900 (K) · What is the value of the 9 in 9,434? = 9000 (R) · What is the value of the 5 in 568? = 500 (L) · What is the value of the 8 in 486? = 80 (E) · What is the value of the 7 in 3,676? = 70 (I) · What is the value of the 1 in 41,563? = 1000 (M) · What is the value of the 6 in 8,697? = 600 (H) · What is the value of the 2 in 287? = 200 (A) · What is the value of the 6 in 7,364? = 60 (D) · What is the value of the 8 in 48,640? = 8000 (Y) · What is the value of the 8 in 866? = 800 (N) · What is the value of the 3 in 371? = 300 (S) · What is the value of the 4 in 4,667? = 4000 (O)

Clue 2 (Addition): "A BRIGHT GOLD BELL JINGLED IN THE HALLWAY"

1681 + 3608 = 5289 (A) · 3346 + 4743 = 8089 (I) · 4194 + 4078 = 8272 (H) · 2449 + 1252 = 3701 (B) · 2968 + 1413 = 4381 (G) · 2259 + 1417 = 3676 (Y) · 4387 + 2291 = 6678 (J) · 4605 + 5280 = 9885 (W) · 2489 + 2937 = 5426 (N) · 1143 + 1446 = 2589 (E) · 2962 + 3366 = 6328 (O) · 1290 + 2118 = 3408 (L) · 2337 + 3336 = 5673 (R) · 4196 + 4110 = 8306 (D) · 2795 + 1318 = 4113 (T)

Clue 3 (Subtraction): "THE CULPRIT CHASED A BRIGHT FLASHLIGHT BEAM"

11027 - 3919 = 7108 (T) · 8997 - 4892 = 4105 (S) · 3340 - 2017 = 1323 (G) · 8202 - 4847 = 3355 (P) · 6797 - 3165 = 3632 (U) · 12230 - 3751 = 8479 (D) · 10630 - 2701 = 7929 (B) · 4251 - 1410 = 2841 (M) · 4556 - 789 = 3767 (F) · 4613 - 219 = 4394 (I) · 4889 - 1029 = 3860 (A) · 10694 - 2345 = 8349 (R) · 3552 - 1864 = 1688 (L) · 4865 - 1428 = 3437 (C) · 5064 - 153 = 4911 (E) · 6273 - 1300 = 4973 (H)

Clue 4 (Rounding): "ORANGE TABBY FUR WAS SNAGGED ON THE DOOR"

Round 2,929 to the nearest hundred = 2900 (O) · Round 67 to the nearest ten = 70 (F) · Round 5,321 to the nearest thousand = 5000 (H) · Round 53 to the nearest ten = 50 (R) · Round 126 to the nearest ten = 130 (N) · Round 2,270 to the nearest hundred = 2300 (A) · Round 506 to the nearest hundred = 500 (T) · Round 3,155 to the nearest thousand = 3000 (S) · Round 7,083 to the nearest thousand = 7000 (B) · Round 3,743 to the nearest hundred = 3700 (Y) · Round 2,481 to the nearest thousand = 2000 (W) · Round 170 to the nearest ten = 170 (E) · Round 30 to the nearest ten = 30 (D) · Round 1,698 to the nearest hundred = 1700 (U) · Round 21 to the nearest ten = 20 (G)

Clue 5 (Division facts (1-12)): surviving statement is box 2 → Socks

90 ÷ 10 = 9 · 6 ÷ 1 = 6 · 27 ÷ 9 = 3 · 80 ÷ 8 = 10 · 35 ÷ 5 = 7 · 20 ÷ 5 = 4 · 108 ÷ 9 = 12 · 12 ÷ 12 = 1 · 11 ÷ 1 = 11 · 5 ÷ 1 = 5 · 64 ÷ 8 = 8