



The Great Catnip Caper

Grade 6 math · Fractions of a number, Addition, Subtraction, Multiplication · Reading level grades 5-6

Detective: _____ Date: _____

Someone broke into the sanctuary vault and snatched the golden catnip trophy! Detective, check the clues to catch the sneaky 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 Catnip Thief is _____

Possible suspects

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

NAME	MAIN GADGET	EXTRA GEAR	PAWEDNESS	FUR PATTERN	GREAT FEAR
Hazel Fur	Catnip Cannon	Catnap Pillow	Left Pawed	Tuxedo Coat	Vacuum Cleaner
Ziggy Patter	Laser Pointer	Squeaky Mouse	Right Pawed	Calico Patch	Spray Bottle
Rusty Snuggle	Laser Pointer	Milk Bottle	Right Pawed	Calico Patch	Vacuum Cleaner
Oliver Pounce	Catnip Cannon	Bell Collar	Left Pawed	Tabby Stripe	Spray Bottle
Penny Pounce	Yarn Launcher	Catnap Pillow	Left Pawed	Tabby Stripe	Vacuum Cleaner
Chester Chomp	Grooming Comb	Milk Bottle	Left Pawed	Tabby Stripe	Vacuum Cleaner
Bella Whiskers	Laser Pointer	Milk Bottle	Left Pawed	Tuxedo Coat	Spray Bottle
Peanut Swish	Catnip Cannon	Bell Collar	Left Pawed	Tuxedo Coat	Spray Bottle
Mochi Purr	Feather Wand	Bell Collar	Left Pawed	Tuxedo Coat	Loud Doorbell
Socks Velvet	Grooming Comb	Squeaky Mouse	Right Pawed	Tabby Stripe	Vacuum Cleaner
Simba Leap	Laser Pointer	Catnap Pillow	Left Pawed	Tabby Stripe	Vacuum Cleaner
Felix Purr	Catnip Cannon	Catnap Pillow	Right Pawed	Tuxedo Coat	Spray Bottle
Milo Scratch	Yarn Launcher	Bell Collar	Left Pawed	Tuxedo Coat	Loud Doorbell
Cleo Claw	Feather Wand	Squeaky Mouse	Left Pawed	Tuxedo Coat	Spray Bottle
Barnaby Beans	Catnip Cannon	Bell Collar	Left Pawed	Tuxedo Coat	Vacuum Cleaner
Smokey Nap	Grooming Comb	Fish Treat	Left Pawed	Tabby Stripe	Vacuum Cleaner
Nala Biscuit	Laser Pointer	Squeaky Mouse	Left Pawed	Tabby Stripe	Vacuum Cleaner
Mittens Paw	Yarn Launcher	Catnap Pillow	Left Pawed	Calico Patch	Loud Doorbell
Oreo Stripe	Grooming Comb	Squeaky Mouse	Left Pawed	Tabby Stripe	Spray Bottle
Luna Fuzzy	Yarn Launcher	Catnap Pillow	Right Pawed	Tabby Stripe	Loud Doorbell
Gus Tread	Catnip Cannon	Squeaky Mouse	Left Pawed	Tabby Stripe	Loud Doorbell

CLUE 1

Fractions of a number

To check the security camera logs, you calculate the exact fraction of footage recorded during the midnight hour.

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

T			T												T
31	8	18	31	8	3	18	6	14	12	18	10	19	12	31	
										T				T	
11	15	4	4	35	15	6	3	10	8	31	4	18	15	31	

$1/3 \text{ of } 93 = \square \rightarrow \text{ T }$

$1/10 \text{ of } 190 = \square \rightarrow \text{ N }$

$2/4 \text{ of } 28 = \square \rightarrow \text{ D }$

$3/5 \text{ of } 25 = \square \rightarrow \text{ A }$

$7/10 \text{ of } 50 = \square \rightarrow \text{ Y }$

$2/3 \text{ of } 15 = \square \rightarrow \text{ S }$

$5/10 \text{ of } 36 = \square \rightarrow \text{ E }$

$4/6 \text{ of } 12 = \square \rightarrow \text{ H }$

$2/5 \text{ of } 30 = \square \rightarrow \text{ O }$

$1/2 \text{ of } 22 = \square \rightarrow \text{ C }$

$3/10 \text{ of } 20 = \square \rightarrow \text{ F }$

$1/5 \text{ of } 15 = \square \rightarrow \text{ I }$

$1/2 \text{ of } 8 = \square \rightarrow \text{ R }$

Scratch space:

CLUE 2 Addition

You add up the total weight of catnip sacks left in the storage room to track what was taken.

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

W									W					
2007	6953	9647	9167	3102	8628	8628	8628	6207	2007	6207	3358	3102	9078	9647

		W								
2868	6207	2007	3102	5911	8628	9167	3102	6207	7539	

$1313 + 694 = \square \rightarrow \boxed{W}$

$4052 + 5026 = \square \rightarrow \boxed{F}$

$4035 + 2172 = \square \rightarrow \boxed{A}$

$5422 + 3745 = \square \rightarrow \boxed{N}$

$1774 + 4137 = \square \rightarrow \boxed{D}$

$4268 + 2685 = \square \rightarrow \boxed{I}$

$2923 + 6724 = \square \rightarrow \boxed{T}$

$1216 + 1652 = \square \rightarrow \boxed{P}$

$5216 + 2323 = \square \rightarrow \boxed{K}$

$1172 + 2186 = \square \rightarrow \boxed{L}$

$5394 + 3234 = \square \rightarrow \boxed{S}$

$2031 + 1071 = \square \rightarrow \boxed{E}$

Scratch space:

CLUE 3

Subtraction

Comparing the inventory before and after the break in, you subtract the remaining treats to find the missing amount.

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

T																
7101	7016	8220	8388	7464	8220	1744	2577	7894	5440	8220	1880	5072	7016	8220	7464	1744
							T			T						
1210	1744	2308	3570	3570	2149	8388	7101	1744	1793	7101	8220	1880				

$7301 - 200 = \square \rightarrow \boxed{\text{T}}$

$4374 - 3164 = \square \rightarrow \boxed{\text{V}}$

$9928 - 1708 = \square \rightarrow \boxed{\text{E}}$

$9820 - 4380 = \square \rightarrow \boxed{\text{L}}$

$6235 - 4491 = \square \rightarrow \boxed{\text{A}}$

$6206 - 3629 = \square \rightarrow \boxed{\text{K}}$

$8876 - 3804 = \square \rightarrow \boxed{\text{W}}$

$8934 - 1918 = \square \rightarrow \boxed{\text{H}}$

$5839 - 3690 = \square \rightarrow \boxed{\text{M}}$

$2062 - 269 = \square \rightarrow \boxed{\text{R}}$

$7640 - 4070 = \square \rightarrow \boxed{\text{U}}$

$7108 - 4800 = \square \rightarrow \boxed{\text{C}}$

$5692 - 3812 = \square \rightarrow \boxed{\text{D}}$

$10914 - 2526 = \square \rightarrow \boxed{\text{S}}$

$9651 - 2187 = \square \rightarrow \boxed{\text{N}}$

$10942 - 3048 = \square \rightarrow \boxed{\text{F}}$

Scratch space:

CLUE 4
Multiplication facts (1-12)

The thief stepped through rows of wet paint, so you multiply the grid of paw prints to count the total steps.

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

T						T										
72	14	132	132	7	90	72	16	77	81	144	54	100	16	32	14	90
							T							T		
54	42	100	96	20	42	96	72	18	144	9	14	100	55	72		

$12 \times 6 = \square \rightarrow \text{T}$

$9 \times 10 = \square \rightarrow \text{S}$

$11 \times 7 = \square \rightarrow \text{I}$

$9 \times 9 = \square \rightarrow \text{P}$

$8 \times 2 = \square \rightarrow \text{R}$

$11 \times 12 = \square \rightarrow \text{B}$

$5 \times 11 = \square \rightarrow \text{L}$

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

$6 \times 7 = \square \rightarrow \text{O}$

$3 \times 3 = \square \rightarrow \text{V}$

$8 \times 12 = \square \rightarrow \text{N}$

$8 \times 4 = \square \rightarrow \text{W}$

$1 \times 7 = \square \rightarrow \text{Y}$

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

$2 \times 7 = \square \rightarrow \text{A}$

$2 \times 10 = \square \rightarrow \text{D}$

$10 \times 10 = \square \rightarrow \text{U}$

$6 \times 3 = \square \rightarrow \text{H}$

Scratch space:

CLUE 5**Fractions of a number - the last clue**

By calculating what fraction of the fur samples matched each suspect, you narrow down the final trace evidence.

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:

$1/3 \text{ of } 6 = \boxed{}$

$5/10 \text{ of } 10 = \boxed{}$

$2/3 \text{ of } 9 = \boxed{}$

$2/6 \text{ of } 33 = \boxed{}$

$2/5 \text{ of } 30 = \boxed{}$

$4/6 \text{ of } 6 = \boxed{}$

$3/6 \text{ of } 14 = \boxed{}$

$2/5 \text{ of } 25 = \boxed{}$

$3/8 \text{ of } 8 = \boxed{}$

$1/8 \text{ of } 64 = \boxed{}$

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

Step 2 - cross out the sentence with each answer:

1. The villain fired the laser pointer, then grabbed the catnap pillow.
2. The villain scraped the grooming comb, then snatched the milk bottle.
3. The villain waved the feather wand, then squeaked the squeaky mouse.
4. The villain waved the feather wand, then stole the fish treat.
5. The villain fired the laser pointer, then squeaked the squeaky mouse.
6. The villain tangled the yarn launcher, then grabbed the catnap pillow.
7. The villain scraped the grooming comb, then jingled the bell collar.
8. The villain scraped the grooming comb, then stole the fish treat.
9. The villain scraped the grooming comb, then squeaked the squeaky mouse.
10. The villain tangled the yarn launcher, then squeaked the squeaky mouse.
11. The villain tangled the yarn launcher, then jingled the bell collar.
12. The villain fired the laser pointer, then jingled the bell collar.

Answer Key

The Great Catnip Caper

Culprit: Simba Leap

Laser Pointer · Catnap Pillow · Left Pawed · Tabby Stripe · Vacuum Cleaner

Trail: Start 21 → Clue 1 20 → Clue 2 15 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Fractions of a number): "THE THIEF DOES NOT CARRY A FISH TREAT"

$1/3$ of 93 = 31 (T) · $1/10$ of 190 = 19 (N) · $2/4$ of 28 = 14 (D) · $3/5$ of 25 = 15 (A) · $7/10$ of 50 = 35 (Y) · $2/3$ of 15 = 10 (S) · $5/10$ of 36 = 18 (E) · $4/6$ of 12 = 8 (H) · $2/5$ of 30 = 12 (O) · $1/2$ of 22 = 11 (C) · $3/10$ of 20 = 6 (F) · $1/5$ of 15 = 3 (I) · $1/2$ of 8 = 4 (R)

Clue 2 (Addition): "WITNESS SAW A LEFT PAWED SNEAK"

$1313 + 694 = 2007$ (W) · $4052 + 5026 = 9078$ (F) · $4035 + 2172 = 6207$ (A) · $5422 + 3745 = 9167$ (N) · $1774 + 4137 = 5911$ (D) · $4268 + 2685 = 6953$ (I) · $2923 + 6724 = 9647$ (T) · $1216 + 1652 = 2868$ (P) · $5216 + 2323 = 7539$ (K) · $1172 + 2186 = 3358$ (L) · $5394 + 3234 = 8628$ (S) · $2031 + 1071 = 3102$ (E)

Clue 3 (Subtraction): "THE SNEAK FLED WHEN A VACUUM STARTED"

$7301 - 200 = 7101$ (T) · $4374 - 3164 = 1210$ (V) · $9928 - 1708 = 8220$ (E) · $9820 - 4380 = 5440$ (L) · $6235 - 4491 = 1744$ (A) · $6206 - 3629 = 2577$ (K) · $8876 - 3804 = 5072$ (W) · $8934 - 1918 = 7016$ (H) · $5839 - 3690 = 2149$ (M) · $2062 - 269 = 1793$ (R) · $7640 - 4070 = 3570$ (U) · $7108 - 4800 = 2308$ (C) · $5692 - 3812 = 1880$ (D) · $10914 - 2526 = 8388$ (S) · $9651 - 2187 = 7464$ (N) · $10942 - 3048 = 7894$ (F)

Clue 4 (Multiplication facts (1-12)): "TABBY STRIPE FUR WAS FOUND ON THE VAULT"

$12 \times 6 = 72$ (T) · $9 \times 10 = 90$ (S) · $11 \times 7 = 77$ (I) · $9 \times 9 = 81$ (P) · $8 \times 2 = 16$ (R) · $11 \times 12 = 132$ (B) · $5 \times 11 = 55$ (L) · $9 \times 6 = 54$ (F) · $6 \times 7 = 42$ (O) · $3 \times 3 = 9$ (V) · $8 \times 12 = 96$ (N) · $8 \times 4 = 32$ (W) · $1 \times 7 = 7$ (Y) · $12 \times 12 = 144$ (E) · $2 \times 7 = 14$ (A) · $2 \times 10 = 20$ (D) · $10 \times 10 = 100$ (U) · $6 \times 3 = 18$ (H)

Clue 5 (Fractions of a number): surviving statement is box 1 → Simba Leap

$1/3$ of 6 = 2 · $5/10$ of 10 = 5 · $2/3$ of 9 = 6 · $2/6$ of 33 = 11 · $2/5$ of 30 = 12 · $4/6$ of 6 = 4 · $3/6$ of 14 = 7 · $2/5$ of 25 = 10 · $3/8$ of 8 = 3 · $1/8$ of 64 = 8 · $6/10$ of 15 = 9