The Great Catnip Caper

Grade 6 math · Percentages, Exponents, Order of operations, Multiplication, Division · Reading level grades 5-6

Detective: _____ **Date:** _____

Someone snuck into Purrfect Palaces Shelter and snatched the prize golden catnip trophy. The detective must crack the clues and reveal which sneaky feline committed the crime.

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	TRICK SKILL	FAVORITE TOY	DOMINANT PAW	FUR PATTERN	SECRET FLAW
Macavity	Scratch Barrage	Catnip Sachet	Left Pawed	Orange Tabby Fur	Scared Of Cucumbers
Nala	Pounce Dash	Cardboard Box Armor	Left Pawed	Calico Fur	Distracted By Lasers
Pixel	Pounce Dash	Catnip Sachet	Right Pawed	Orange Tabby Fur	Hypnotized By Fish
Penelope	Catnip Blast	Catnip Sachet	Left Pawed	Calico Fur	Distracted By Lasers
Salem	Scratch Barrage	Feather Wand	Left Pawed	Sleek Black Fur	Hypnotized By Fish
Crookshanks	Laser Chase	Yarn Ball Launcher	Left Pawed	Calico Fur	Distracted By Lasers
Barnaby	Scratch Barrage	Squeaky Mouse	Right Pawed	Calico Fur	Hypnotized By Fish
Azrael	Pounce Dash	Feather Wand	Left Pawed	Calico Fur	Distracted By Lasers
Mittens	Catnip Blast	Feather Wand	Left Pawed	Calico Fur	Distracted By Lasers
Whiskers	Purr Sonic	Squeaky Mouse	Right Pawed	Sleek Black Fur	Hypnotized By Fish
Sylvester	Laser Chase	Cardboard Box Armor	Right Pawed	Calico Fur	Hypnotized By Fish
Figaro	Scratch Barrage	Cardboard Box Armor	Right Pawed	Orange Tabby Fur	Hypnotized By Fish
Milo	Catnip Blast	Yarn Ball Launcher	Left Pawed	Sleek Black Fur	Scared Of Cucumbers
Simba	Scratch Barrage	Cardboard Box Armor	Left Pawed	Calico Fur	Scared Of Cucumbers
Binx	Laser Chase	Yarn Ball Launcher	Left Pawed	Orange Tabby Fur	Hypnotized By Fish
Duchess	Catnip Blast	Squeaky Mouse	Left Pawed	Calico Fur	Hypnotized By Fish
Oliver	Pounce Dash	Catnip Sachet	Left Pawed	Sleek Black Fur	Distracted By Lasers
Luna	Scratch Barrage	Catnip Sachet	Left Pawed	Calico Fur	Scared Of Cucumbers
Felix	Scratch Barrage	Feather Wand	Right Pawed	Calico Fur	Distracted By Lasers
Cleo	Pounce Dash	Cardboard Box Armor	Right Pawed	Calico Fur	Hypnotized By Fish
Cheshire	Catnip Blast	Cardboard Box Armor	Right Pawed	Calico Fur	Distracted By Lasers

CLUE 1 Percentages

A digital scale measured the discount percentage on catnip batches to pinpoint a key clue.

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

T														T
1	17	45	43	28	33	33	10	28	32	9	4	45	8	32	4	1

23	8	45	41	10	7	32	11	10	33	33	33	10	23	32	30	17	45	7	8

5% of 20 = ☐ → T

50% of 34 = ☐ → H

25% of 128 = ☐ → N

50% of 60 = ☐ → C

25% of 32 = ☐ → S

20% of 225 = ☐ → E

25% of 28 = ☐ → R

25% of 164 = ☐ → Y

5% of 220 = ☐ → B

40% of 25 = ☐ → A

40% of 10 = ☐ → O

75% of 44 = ☐ → L

25% of 112 = ☐ → I

25% of 92 = ☐ → U

5% of 860 = ☐ → V

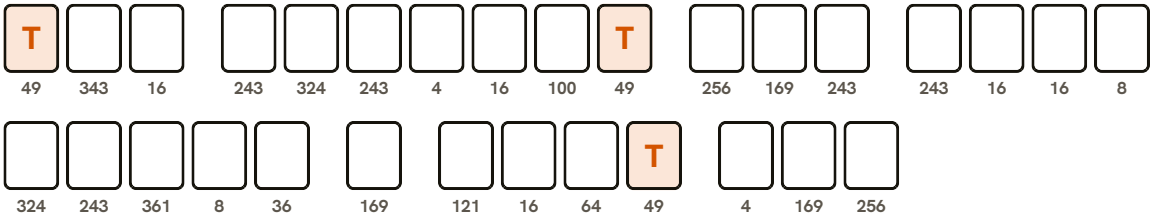
50% of 18 = ☐ → D

Scratch space:

CLUE 2 Exponents

> Analyzing the exponential growth of catnip spores under a microscope reveals the next detail.

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



7^2 = ☐ → T

18^2 = ☐ → U

10^2 = ☐ → C

6^2 = ☐ → G

11^2 = ☐ → L

3^5 = ☐ → S

4^2 = ☐ → E

2^2 = ☐ → P

7^3 = ☐ → H

19^2 = ☐ → I

13^2 = ☐ → A

2^3 = ☐ → N

4^3 = ☐ → F

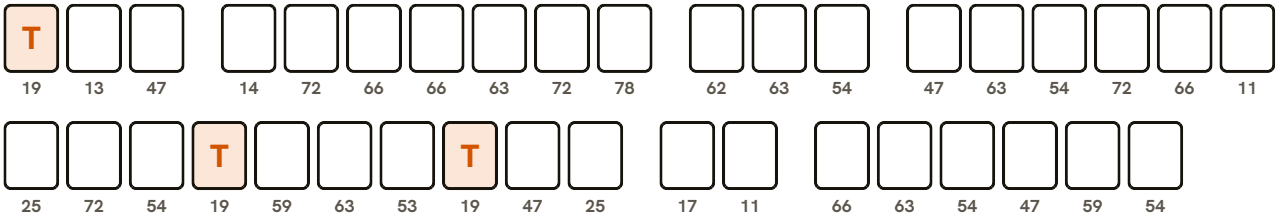
2^8 = ☐ → W

Scratch space:

CLUE 3 Order of operations

Following the strict order of operations on the shelter security code reveals the next evidence.

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



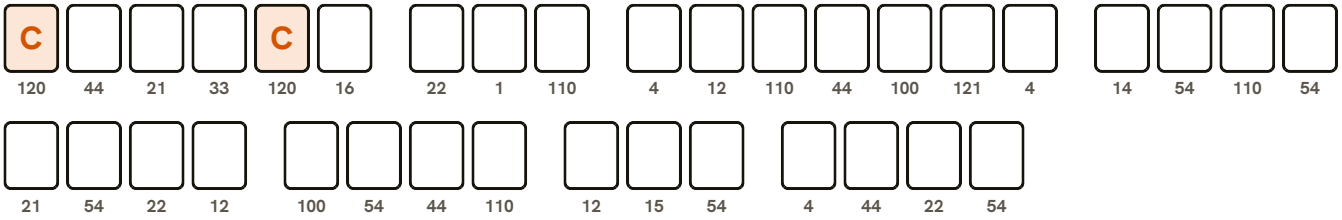
2 × 10 - 1 = ☐ → T	8 × 11 - 26 = ☐ → W	14 + 5 × 9 = ☐ → R
3 × 10 - 5 = ☐ → D	39 + 3 × 9 = ☐ → L	1 + 2 × 5 = ☐ → Y
51 + 3 × 7 = ☐ → I	2 × 7 - 1 = ☐ → H	9 × 8 - 25 = ☐ → E
42 + 2 × 6 = ☐ → S	10 + 2 × 2 = ☐ → V	29 + 3 × 8 = ☐ → C
11 × 8 - 10 = ☐ → N	5 + 4 × 3 = ☐ → B	12 × 6 - 9 = ☐ → A

Scratch space:

CLUE 4 Multiplication facts (1-12)

> Counting the total tuna cans arranged in equal rows gives us another piece of the puzzle.

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



12 × 10 = ☐ → C	7 × 2 = ☐ → W	11 × 10 = ☐ → R	
11 × 11 = ☐ → D	4 × 4 = ☐ → O	10 × 10 = ☐ → N	
3 × 4 = ☐ → T	2 × 2 = ☐ → S	4 × 11 = ☐ → A	3 × 5 = ☐ → H
9 × 6 = ☐ → E	3 × 11 = ☐ → I	11 × 2 = ☐ → F	
1 × 1 = ☐ → U	3 × 7 = ☐ → L		

Scratch space:

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

Dividing the treat packets equally among the shelter playrooms unlocks 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:

81 ÷ 9 = ☐ | 10 ÷ 5 = ☐ | 24 ÷ 8 = ☐ | 28 ÷ 4 = ☐ | 96 ÷ 8 = ☐

60 ÷ 10 = ☐ | 10 ÷ 10 = ☐ | 77 ÷ 7 = ☐ | 24 ÷ 3 = ☐ | 35 ÷ 7 = ☐

10 ÷ 1 = ☐

Step 2 - cross out the sentence with each answer:

1. The villain emitted Purr Sonic waves, then sheltered in Cardboard Box Armor.
2. The villain executed a Pounce Dash, then waved a Feather Wand.
3. The villain unleashed a Catnip Blast, then tossed a Catnip Sachet.
4. The villain unleashed a Catnip Blast, then waved a Feather Wand.
5. The villain unleashed a Catnip Blast, then sheltered in Cardboard Box Armor.
6. The villain delivered a Scratch Barrage, then waved a Feather Wand.
7. The villain used Laser Chase, then swung a Squeaky Mouse.
8. The villain used Laser Chase, then waved a Feather Wand.
9. The villain executed a Pounce Dash, then sheltered in Cardboard Box Armor.
10. The villain unleashed a Catnip Blast, then fired a Yarn Ball Launcher.
11. The villain emitted Purr Sonic waves, then fired a Yarn Ball Launcher.
12. The villain executed a Pounce Dash, then fired a Yarn Ball Launcher.

TEACHER / PARENT

Answer Key

The Great Catnip Caper

Culprit: Mittens

Catnip Blast · Feather Wand · Left Pawed · Calico Fur · Distracted By Lasers

Trail: Start 21 → Clue 1 18 → Clue 2 10 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Percentages): "THE VILLAIN DOES NOT USE YARN BALL LAUNCHERS"

5% of 20 = 1 (T) · 50% of 34 = 17 (H) · 25% of 128 = 32 (N) · 50% of 60 = 30 (C) · 25% of 32 = 8 (S) · 20% of 225 = 45 (E) · 25% of 28 = 7 (R) · 25% of 164 = 41 (Y) · 5% of 220 = 11 (B) · 40% of 25 = 10 (A) · 40% of 10 = 4 (O) · 75% of 44 = 33 (L) · 25% of 112 = 28 (I) · 25% of 92 = 23 (U) · 5% of 860 = 43 (V) · 50% of 18 = 9 (D)

Clue 2 (Exponents): "THE SUSPECT WAS SEEN USING A LEFT PAW"

7^2 = 49 (T) · 18^2 = 324 (U) · 10^2 = 100 (C) · 6^2 = 36 (G) · 11^2 = 121 (L) · 3^5 = 243 (S) · 4^2 = 16 (E) · 2^2 = 4 (P) · 7^3 = 343 (H) · 19^2 = 361 (I) · 13^2 = 169 (A) · 2^3 = 8 (N) · 4^3 = 64 (F) · 2^8 = 256 (W)

Clue 3 (Order of operations): "THE VILLAIN WAS EASILY DISTRACTED BY LASERS"

2 × 10 - 1 = 19 (T) · 8 × 11 - 26 = 62 (W) · 14 + 5 × 9 = 59 (R) · 3 × 10 - 5 = 25 (D) · 39 + 3 × 9 = 66 (L) · 1 + 2 × 5 = 11 (Y) · 51 + 3 × 7 = 72 (I) · 2 × 7 - 1 = 13 (H) · 9 × 8 - 25 = 47 (E) · 42 + 2 × 6 = 54 (S) · 10 + 2 × 2 = 14 (V) · 29 + 3 × 8 = 53 (C) · 11 × 8 - 10 = 78 (N) · 5 + 4 × 3 = 17 (B) · 12 × 6 - 9 = 63 (A)

Clue 4 (Multiplication facts (1-12)): "CALICO FUR STRANDS WERE LEFT NEAR THE SAFE"

12 × 10 = 120 (C) · 7 × 2 = 14 (W) · 11 × 10 = 110 (R) · 11 × 11 = 121 (D) · 4 × 4 = 16 (O) · 10 × 10 = 100 (N) · 3 × 4 = 12 (T) · 2 × 2 = 4 (S) · 4 × 11 = 44 (A) · 3 × 5 = 15 (H) · 9 × 6 = 54 (E) · 3 × 11 = 33 (I) · 11 × 2 = 22 (F) · 1 × 1 = 1 (U) · 3 × 7 = 21 (L)

Clue 5 (Division facts (1-12)): surviving statement is box 4 → Mittens

81 ÷ 9 = 9 · 10 ÷ 5 = 2 · 24 ÷ 8 = 3 · 28 ÷ 4 = 7 · 96 ÷ 8 = 12 · 60 ÷ 10 = 6 · 10 ÷ 10 = 1 · 77 ÷ 7 = 11 · 24 ÷ 3 = 8 · 35 ÷ 7 = 5 · 10 ÷ 1 = 10