The Great Birthday Cake Caper

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

Detective: _____ **Date:** _____

Someone snuck into Whiskers Bakery right before the grand contest and snatched the giant fish-shaped birthday cake! The detective cats must examine clues around the kitchen to catch the culprit before judging begins.

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 Cake Thief is _____

Possible suspects

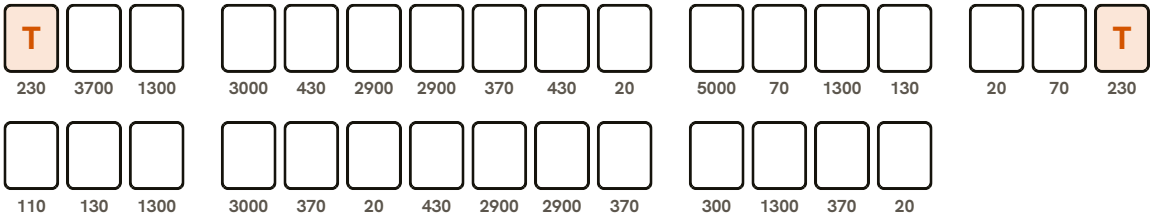
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	BAKING SKILL	SECRET INGREDIENT	PAW HABIT	FUR STYLE	DISTRACTION
Clawdia Cat	Sugar Sculpting	Milk Cream	Right Pawed	Fluffy Tabby	Squeaky Mouse
Felix Fluff	Oven Timing	Catnip Sprinkle	Right Pawed	Calico Patches	Shiny Ribbon
Purrlock Holmes	Oven Timing	Milk Cream	Right Pawed	Fluffy Tabby	Laser Light
Muffin Paws	Dough Kneading	Vanilla Bean	Left Pawed	Fluffy Tabby	Laser Light
Baker Barnaby	Oven Timing	Fish Fudge	Left Pawed	Fluffy Tabby	Laser Light
Hazel Nutcat	Berry Glazing	Fish Fudge	Left Pawed	Fluffy Tabby	Laser Light
Cookie Charlie	Sugar Sculpting	Honey Drizzle	Right Pawed	Sleek Black	Laser Light
Butter Bean	Frosting Swirls	Fish Fudge	Left Pawed	Fluffy Tabby	Laser Light
Fudge Felicia	Berry Glazing	Milk Cream	Right Pawed	Fluffy Tabby	Squeaky Mouse
Princess Purr	Frosting Swirls	Fish Fudge	Right Pawed	Fluffy Tabby	Laser Light
Sourdough Sam	Berry Glazing	Catnip Sprinkle	Left Pawed	Calico Patches	Squeaky Mouse
Biscuit Bob	Dough Kneading	Fish Fudge	Left Pawed	Calico Patches	Squeaky Mouse
Tippy Toes	Sugar Sculpting	Fish Fudge	Left Pawed	Sleek Black	Shiny Ribbon
Cupcake Cleo	Berry Glazing	Milk Cream	Left Pawed	Fluffy Tabby	Squeaky Mouse
Whiskers Waffles	Sugar Sculpting	Honey Drizzle	Left Pawed	Sleek Black	Laser Light
Ziggy Zeppole	Oven Timing	Catnip Sprinkle	Left Pawed	Calico Patches	Laser Light
Macaron Mittens	Dough Kneading	Fish Fudge	Right Pawed	Calico Patches	Laser Light
Chef Meowser	Oven Timing	Honey Drizzle	Left Pawed	Fluffy Tabby	Laser Light
Barnaby Batter	Frosting Swirls	Fish Fudge	Right Pawed	Calico Patches	Shiny Ribbon
Oliver Oatmeal	Dough Kneading	Honey Drizzle	Left Pawed	Fluffy Tabby	Squeaky Mouse
Captain Paws	Dough Kneading	Fish Fudge	Left Pawed	Sleek Black	Shiny Ribbon

CLUE 1 Rounding

The digital flour scale in the bakery kitchen only shows rounded totals. Round the numbers to read the clue.

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



Round 233 to the nearest ten ☐ → T

Round 23 to the nearest ten ☐ → N

Round 70 to the nearest ten ☐ → O

Round 127 to the nearest ten ☐ → S

Round 114 to the nearest ten ☐ → U

Round 314 to the nearest hundred ☐ → B

Round 3,713 to the nearest hundred ☐ → H

Round 4,636 to the nearest thousand ☐ → D

Round 371 to the nearest ten ☐ → A

Round 426 to the nearest ten ☐ → I

Round 2,625 to the nearest thousand ☐ → V

Round 2,865 to the nearest hundred ☐ → L

Round 1,268 to the nearest hundred ☐ → E

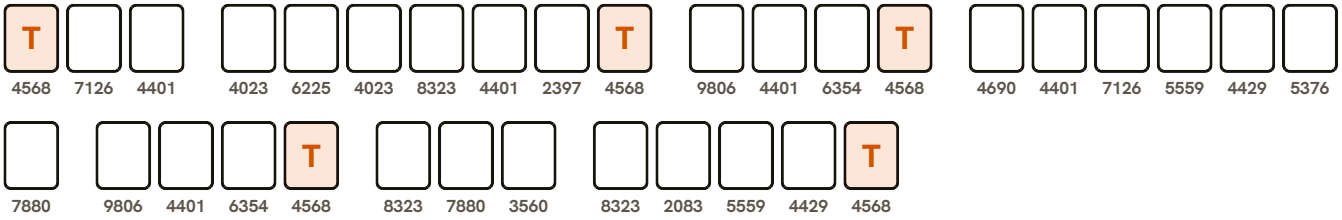
Scratch space:

CLUE 2

Addition

The pastry chef counted up all the stray sprinkles on the baking table. Add the numbers to unlock the evidence.

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



2137 + 2431 = ☐ → T

3529 + 2825 = ☐ → F

3182 + 2194 = ☐ → D

1122 + 1275 = ☐ → C

4616 + 5190 = ☐ → L

1393 + 3008 = ☐ → E

4278 + 2848 = ☐ → H

2490 + 1533 = ☐ → S

3064 + 1626 = ☐ → B

1118 + 2442 = ☐ → W

2605 + 2954 = ☐ → I

1443 + 640 = ☐ → R

4216 + 2009 = ☐ → U

3703 + 4620 = ☐ → P

2958 + 1471 = ☐ → N

2896 + 4984 = ☐ → A

Scratch space:

CLUE 3 Subtraction

Some cupcakes went missing from the baking rack. Subtract to find out how many treats remain.

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



7253 - 4079 = ☐ → T

6910 - 3251 = ☐ → C

9395 - 566 = ☐ → L

8325 - 573 = ☐ → D

7194 - 982 = ☐ → F

6966 - 1167 = ☐ → G

5628 - 1372 = ☐ → H

9095 - 4731 = ☐ → V

3431 - 1555 = ☐ → N

7502 - 3039 = ☐ → A

9762 - 874 = ☐ → I

13511 - 4783 = ☐ → E

2745 - 312 = ☐ → S

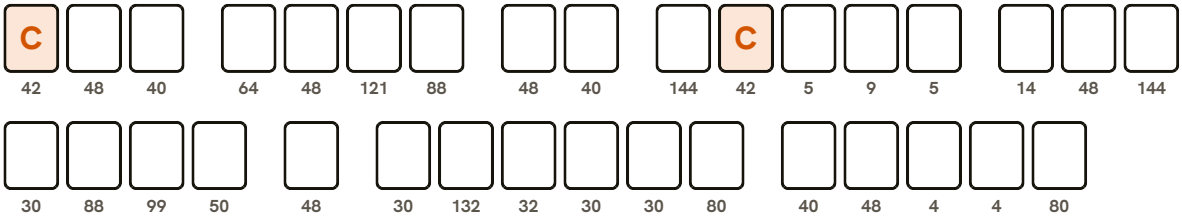
8580 - 99 = ☐ → R

Scratch space:

CLUE 4 Multiplication facts (1-12)

The bakery trays were arranged in neat rows of delicious tarts. Multiply to count the total pastries.

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



7 × 6 = ☐ → C

5 × 1 = ☐ → E

11 × 11 = ☐ → I

4 × 12 = ☐ → A

11 × 8 = ☐ → R

7 × 2 = ☐ → W

4 × 10 = ☐ → T

4 × 1 = ☐ → B

3 × 10 = ☐ → F

12 × 11 = ☐ → L

8 × 8 = ☐ → H

5 × 10 = ☐ → M

8 × 10 = ☐ → Y

9 × 11 = ☐ → O

9 × 1 = ☐ → N

8 × 4 = ☐ → U

12 × 12 = ☐ → S

Scratch space:

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

> The helper cats split the remaining cake slices evenly among their plates. Divide to discover the final secret.

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:

7 ÷ 1 = ☐	72 ÷ 9 = ☐	16 ÷ 8 = ☐	28 ÷ 7 = ☐	3 ÷ 1 = ☐
60 ÷ 6 = ☐	1 ÷ 1 = ☐	108 ÷ 9 = ☐	121 ÷ 11 = ☐	35 ÷ 7 = ☐
18 ÷ 2 = ☐				

Step 2 - cross out the sentence with each answer:

1. The villain poured sweet berry glaze, then drizzled golden honey.
2. The villain set the giant oven timer, then stirred in rich fish fudge.
3. The villain sculpted a cat statue out of sugar, then stirred in rich fish fudge.
4. The villain piped frosting onto the counter, then drizzled golden honey.
5. The villain poured sweet berry glaze, then added fresh vanilla bean.
6. The villain set the giant oven timer, then drizzled golden honey.
7. The villain piped frosting onto the counter, then stirred in rich fish fudge.
8. The villain poured sweet berry glaze, then stirred in rich fish fudge.
9. The villain set the giant oven timer, then sprinkled catnip all over.
10. The villain piped frosting onto the counter, then whipped up extra milk cream.
11. The villain kneaded dough into a giant ball, then drizzled golden honey.
12. The villain poured sweet berry glaze, then sprinkled catnip all over.

TEACHER / PARENT

Answer Key

The Great Birthday Cake Caper

Culprit: Chef Meowser

Oven Timing · Honey Drizzle · Left Pawed · Fluffy Tabby · Laser Light

Trail: Start 21 → Clue 1 20 → Clue 2 12 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE VILLAIN DOES NOT USE VANILLA BEAN"

Round 233 to the nearest ten = 230 (T) · Round 23 to the nearest ten = 20 (N) · Round 70 to the nearest ten = 70 (O) · Round 127 to the nearest ten = 130 (S) · Round 114 to the nearest ten = 110 (U) · Round 314 to the nearest hundred = 300 (B) · Round 3,713 to the nearest hundred = 3700 (H) · Round 4,636 to the nearest thousand = 5000 (D) · Round 371 to the nearest ten = 370 (A) · Round 426 to the nearest ten = 430 (I) · Round 2,625 to the nearest thousand = 3000 (V) · Round 2,865 to the nearest hundred = 2900 (L) · Round 1,268 to the nearest hundred = 1300 (E)

Clue 2 (Addition): "THE SUSPECT LEFT BEHIND A LEFT PAW PRINT"

2137 + 2431 = 4568 (T) · 3529 + 2825 = 6354 (F) · 3182 + 2194 = 5376 (D) · 1122 + 1275 = 2397 (C) · 4616 + 5190 = 9806 (L) · 1393 + 3008 = 4401 (E) · 4278 + 2848 = 7126 (H) · 2490 + 1533 = 4023 (S) · 3064 + 1626 = 4690 (B) · 1118 + 2442 = 3560 (W) · 2605 + 2954 = 5559 (I) · 1443 + 640 = 2083 (R) · 4216 + 2009 = 6225 (U) · 3703 + 4620 = 8323 (P) · 2958 + 1471 = 4429 (N) · 2896 + 4984 = 7880 (A)

Clue 3 (Subtraction): "THE VILLAIN CHASED AFTER A RED LASER LIGHT"

7253 - 4079 = 3174 (T) · 6910 - 3251 = 3659 (C) · 9395 - 566 = 8829 (L) · 8325 - 573 = 7752 (D) · 7194 - 982 = 6212 (F) · 6966 - 1167 = 5799 (G) · 5628 - 1372 = 4256 (H) · 9095 - 4731 = 4364 (V) · 3431 - 1555 = 1876 (N) · 7502 - 3039 = 4463 (A) · 9762 - 874 = 8888 (I) · 13511 - 4783 = 8728 (E) · 2745 - 312 = 2433 (S) · 8580 - 99 = 8481 (R)

Clue 4 (Multiplication facts (1-12)): "CAT HAIR AT SCENE WAS FROM A FLUFFY TABBY"

7 × 6 = 42 (C) · 5 × 1 = 5 (E) · 11 × 11 = 121 (I) · 4 × 12 = 48 (A) · 11 × 8 = 88 (R) · 7 × 2 = 14 (W) · 4 × 10 = 40 (T) · 4 × 1 = 4 (B) · 3 × 10 = 30 (F) · 12 × 11 = 132 (L) · 8 × 8 = 64 (H) · 5 × 10 = 50 (M) · 8 × 10 = 80 (Y) · 9 × 11 = 99 (O) · 9 × 1 = 9 (N) · 8 × 4 = 32 (U) · 12 × 12 = 144 (S)

Clue 5 (Division facts (1-12)): surviving statement is box 6 → Chef Meowser

7 ÷ 1 = 7 · 72 ÷ 9 = 8 · 16 ÷ 8 = 2 · 28 ÷ 7 = 4 · 3 ÷ 1 = 3 · 60 ÷ 6 = 10 · 1 ÷ 1 = 1 · 108 ÷ 9 = 12 · 121 ÷ 11 = 11 · 35 ÷ 7 = 5 · 18 ÷ 2 = 9