



# The Great Cookie Kingdom Mystery

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

Detective: \_\_\_\_\_ Date: \_\_\_\_\_

Someone snuck into the royal pantry and swiped the legendary Golden Cookie Recipe! The floor is covered in crumbs and frosting. Can you help the baking squad find the culprit before the grand baking festival 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 Cookie 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 STYLE   | SECRET INGREDIENT | SCOOP HAND         | CRUMB DUSTING   | FAVORITE DRINK |
|------------------|----------------|-------------------|--------------------|-----------------|----------------|
| Mac Macaroon     | double-baked   | rainbow sprinkles | left-handed scoop  | sugar crystals  | warm tea       |
| Barnaby Baker    | crunchy baking | chocolate chips   | right-handed scoop | cocoa powder    | apple juice    |
| Fiona Fudge      | frosted style  | peppermint swirl  | left-handed scoop  | cocoa powder    | apple juice    |
| Bessie Biscotti  | chewy baking   | peanut butter     | left-handed scoop  | sugar crystals  | apple juice    |
| Sally Shortbread | no-bake style  | chocolate chips   | left-handed scoop  | sugar crystals  | apple juice    |
| Peter Pizzelle   | no-bake style  | sea salt          | left-handed scoop  | sugar crystals  | apple juice    |
| Mimi Molasses    | crunchy baking | peppermint swirl  | right-handed scoop | cinnamon crumbs | warm tea       |
| Danny Dough      | crunchy baking | sea salt          | left-handed scoop  | cinnamon crumbs | apple juice    |
| Otis Oatmeal     | frosted style  | peppermint swirl  | right-handed scoop | sugar crystals  | cold milk      |
| Abby Alfajor     | chewy baking   | peanut butter     | right-handed scoop | sugar crystals  | apple juice    |
| Penny Peanut     | chewy baking   | rainbow sprinkles | left-handed scoop  | cocoa powder    | apple juice    |
| Gus Graham       | double-baked   | chocolate chips   | left-handed scoop  | sugar crystals  | apple juice    |
| Rudy Raisin      | frosted style  | peppermint swirl  | left-handed scoop  | cinnamon crumbs | warm tea       |
| Toby Tart        | frosted style  | sea salt          | left-handed scoop  | cinnamon crumbs | apple juice    |
| Wendy Whipped    | crunchy baking | peanut butter     | right-handed scoop | cocoa powder    | cold milk      |
| Oliver Oreo      | double-baked   | peppermint swirl  | left-handed scoop  | sugar crystals  | cold milk      |
| Zack Zweiback    | frosted style  | chocolate chips   | left-handed scoop  | cinnamon crumbs | warm tea       |
| Wally Wafer      | crunchy baking | chocolate chips   | left-handed scoop  | cinnamon crumbs | apple juice    |
| Sprinkles Sam    | chewy baking   | rainbow sprinkles | left-handed scoop  | sugar crystals  | apple juice    |
| Chippy Charlie   | crunchy baking | sea salt          | right-handed scoop | cocoa powder    | apple juice    |
| Betty Butter     | frosted style  | rainbow sprinkles | right-handed scoop | sugar crystals  | apple juice    |

### CLUE 1

The flour scale in the bakery is old and only shows the weight rounded to the nearest ten pounds. We weighed the giant sack of sugar to unlock this first hint.

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

The diagram shows the distribution of 10000 items across 10 categories. The categories are represented by boxes, some of which are highlighted in orange and labeled 'T'.

| Category | Value | Highlighted | Label |
|----------|-------|-------------|-------|
| 1        | 40    | Yes         | T     |
| 2        | 8000  | No          |       |
| 3        | 3000  | No          |       |
| 4        | 80    | No          |       |
| 5        | 30    | No          |       |
| 6        | 80    | No          |       |
| 7        | 300   | No          |       |
| 8        | 3000  | No          |       |
| 9        | 60    | No          |       |
| 10       | 40    | Yes         | T     |
| 11       | 9000  | No          |       |
| 12       | 7000  | No          |       |
| 13       | 3000  | No          |       |
| 14       | 80    | No          |       |
| 15       | 600   | No          |       |
| 16       | 7000  | No          |       |
| 17       | 40    | Yes         | T     |
| 18       | 30    | No          |       |
| 19       | 80    | No          |       |
| 20       | 3000  | No          |       |
| 21       | 80    | No          |       |
| 22       | 3000  | No          |       |
| 23       | 50    | No          |       |
| 24       | 80    | No          |       |
| 25       | 50    | No          |       |
| 26       | 20    | No          |       |
| 27       | 40    | Yes         | T     |

Round 39 to the nearest ten   $\rightarrow$  **T**

Round 6,844 to the nearest thousand   $\rightarrow$

Round 264 to the nearest hundred   $\rightarrow$  **P**

Round 79 to the nearest ten   $\rightarrow$  **S**

Round 2,549 to the nearest thousand  → **E**

Round 592 to the nearest hundred   $\rightarrow$  **N**

Round 58 to the nearest ten   $\rightarrow$  **C**

Round 8,871 to the nearest thousand   $\rightarrow$  **D**

Round 26 to the nearest ten   $\rightarrow$  **U**

Round 24 to the nearest ten   $\rightarrow$  **L**

Round 49 to the nearest ten   $\rightarrow$  **A**

Round 7,980 to the nearest thousand  → **H**

Scratch space:

**CLUE 2**   **Addition**

We found three different boxes of stolen baking supplies hidden in the pantry. Adding them all together revealed a secret note from the thief.

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

|                                                                          |                                                                                          |                                                              |                                                                                                                            |                                                                                                           |
|--------------------------------------------------------------------------|------------------------------------------------------------------------------------------|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| <div><div>T</div><div></div><div></div></div> <div>698   279   421</div> | <div><div></div><div></div><div></div></div> <div>543   421   233</div>                  | <div><div>T</div><div></div><div></div></div> <div>698</div> | <div><div></div><div></div><div></div><div></div><div></div><div></div></div> <div>279   957   784   564   421   564</div> | <div><div></div><div></div><div></div><div></div><div></div></div> <div>413   671   776   776   206</div> |
| <div><div></div><div></div><div></div></div> <div>775   957   413</div>  | <div><div></div><div></div><div></div><div></div></div> <div>634   413   421   564</div> |                                                              |                                                                                                                            |                                                                                                           |

$456 + 242 = \square \rightarrow \boxed{\text{T}}$

$322 + 462 = \square \rightarrow \boxed{\text{N}}$

$280 + 141 = \square \rightarrow \boxed{\text{E}}$

$122 + 111 = \square \rightarrow \boxed{\text{F}}$

$205 + 429 = \square \rightarrow \boxed{\text{U}}$

$187 + 92 = \square \rightarrow \boxed{\text{H}}$

$257 + 307 = \square \rightarrow \boxed{\text{D}}$

$89 + 117 = \square \rightarrow \boxed{\text{P}}$

$345 + 198 = \square \rightarrow \boxed{\text{L}}$

$295 + 481 = \square \rightarrow \boxed{\text{O}}$

$247 + 424 = \square \rightarrow \boxed{\text{C}}$

$480 + 477 = \square \rightarrow \boxed{\text{A}}$

$534 + 241 = \square \rightarrow \boxed{\text{W}}$

$272 + 141 = \square \rightarrow \boxed{\text{S}}$

Scratch space:

### CLUE 3 Subtraction

The baker made a big tray of sugar cookies, but the thief took quite a few of them. Subtracting the left-over cookies from the starting amount gives us our next lead.

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

|          |     |     |     |     |     |     |     |     |     |     |          |     |     |     |     |     |     |     |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|-----|-----|-----|-----|-----|-----|-----|
| <b>A</b> |     |     |     |     |     |     |     |     |     |     | <b>A</b> |     |     |     |     |     |     |     |
| 269      | 534 | 534 | 211 | 464 | 149 | 607 | 116 | 527 | 464 | 106 | 269      | 653 | 464 | 624 | 166 | 894 | 464 | 106 |

  

|     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|
|     |     |     |     |     |     |
| 624 | 636 | 464 | 464 | 234 | 464 |

|                                              |                                              |                                              |
|----------------------------------------------|----------------------------------------------|----------------------------------------------|
| $298 - 29 = \square \rightarrow \mathbf{A}$  | $923 - 29 = \square \rightarrow \mathbf{H}$  | $228 - 17 = \square \rightarrow \mathbf{L}$  |
| $554 - 20 = \square \rightarrow \mathbf{P}$  | $984 - 377 = \square \rightarrow \mathbf{U}$ | $922 - 269 = \square \rightarrow \mathbf{K}$ |
| $404 - 288 = \square \rightarrow \mathbf{I}$ | $420 - 314 = \square \rightarrow \mathbf{M}$ | $356 - 190 = \square \rightarrow \mathbf{T}$ |
| $834 - 198 = \square \rightarrow \mathbf{N}$ | $207 - 58 = \square \rightarrow \mathbf{J}$  | $727 - 200 = \square \rightarrow \mathbf{C}$ |
| $644 - 20 = \square \rightarrow \mathbf{S}$  | $405 - 171 = \square \rightarrow \mathbf{Z}$ | $779 - 315 = \square \rightarrow \mathbf{E}$ |

Scratch space:

## CLUE 4

## Multiplication facts (1-12)

The cookie trays are arranged in perfect rows and columns on the cooling racks. Multiplying the rows by the columns helps us calculate the thief's next move.

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

|    |     |    |    |    |    |    |     |    |    |   |    |    |    |    |    |   |    |   |   |
|----|-----|----|----|----|----|----|-----|----|----|---|----|----|----|----|----|---|----|---|---|
| S  |     |    |    |    |    |    |     | S  |    |   |    | S  |    |    |    |   |    |   |   |
| 36 | 132 | 63 | 5  | 55 | 60 | 55 | 121 | 36 | 18 | 5 | 10 | 36 | 36 | 72 | 50 | 4 | 30 | 3 | 4 |
|    |     |    |    |    |    |    |     |    |    |   |    |    |    |    |    |   |    |   |   |
| 18 | 72  | 30 | 10 | 3  | 63 | 72 | 18  |    |    |   |    |    |    |    |    |   |    |   |   |

$12 \times 3 = \square \rightarrow \boxed{\text{S}}$

$5 \times 2 = \square \rightarrow \boxed{\text{L}}$

$11 \times 11 = \square \rightarrow \boxed{\text{Y}}$

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

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

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

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

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

$3 \times 10 = \square \rightarrow \boxed{\text{E}}$

$11 \times 12 = \square \rightarrow \boxed{\text{U}}$

$2 \times 9 = \square \rightarrow \boxed{\text{T}}$

$11 \times 5 = \square \rightarrow \boxed{\text{R}}$

$1 \times 3 = \square \rightarrow \boxed{\text{I}}$

$9 \times 8 = \square \rightarrow \boxed{\text{H}}$

Scratch space:

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

We have a box of crumbs to split evenly among the detective team. Sharing them equally tells us exactly where the thief ran off to.

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:**

$12 \div 4 = \boxed{\phantom{00}}$

$48 \div 4 = \boxed{\phantom{00}}$

$108 \div 12 = \boxed{\phantom{00}}$

$55 \div 11 = \boxed{\phantom{00}}$

$5 \div 5 = \boxed{\phantom{00}}$

$60 \div 6 = \boxed{\phantom{00}}$

$88 \div 11 = \boxed{\phantom{00}}$

$36 \div 9 = \boxed{\phantom{00}}$

$56 \div 8 = \boxed{\phantom{00}}$

$6 \div 3 = \boxed{\phantom{00}}$

$22 \div 2 = \boxed{\phantom{00}}$

**Step 2 - cross out the sentence with each answer:**

1. The villain eats all the raw dough, then scatters chocolate chips behind.
2. The villain hides the golden rolling pin, then leaves a trail of frosting.
3. The villain mixes up the secret flour, then leaves a trail of frosting.
4. The villain hides the golden rolling pin, then sprinkles flour everywhere.
5. The villain steals the chocolate chips, then sprinkles flour everywhere.
6. The villain turns off the royal ovens, then escapes through the bakery window.
7. The villain eats all the raw dough, then laughs with a mouth full of cookies.
8. The villain hides the golden rolling pin, then escapes through the bakery window.
9. The villain mixes up the secret flour, then sprinkles flour everywhere.
10. The villain turns off the royal ovens, then sprinkles flour everywhere.
11. The villain eats all the raw dough, then sprinkles flour everywhere.
12. The villain eats all the raw dough, then escapes through the bakery window.

# Answer Key

## The Great Cookie Kingdom Mystery

### Culprit: Gus Graham

double-baked · chocolate chips · left-handed scoop · sugar crystals · apple juice

Trail: Start 21 → Clue 1 17 → Clue 2 11 → Clue 3 7 → Clue 4 4 → Clue 5 1

### Clue 1 (Rounding): "THE SUSPECT DOES NOT USE SEA SALT"

Round 39 to the nearest ten = 40 (T) · Round 6,844 to the nearest thousand = 7000 (O) · Round 264 to the nearest hundred = 300 (P) · Round 79 to the nearest ten = 80 (S) · Round 2,549 to the nearest thousand = 3000 (E) · Round 592 to the nearest hundred = 600 (N) · Round 58 to the nearest ten = 60 (C) · Round 8,871 to the nearest thousand = 9000 (D) · Round 26 to the nearest ten = 30 (U) · Round 24 to the nearest ten = 20 (L) · Round 49 to the nearest ten = 50 (A) · Round 7,980 to the nearest thousand = 8000 (H)

### Clue 2 (Addition): "THE LEFT HANDED SCOOP WAS USED"

$456 + 242 = 698$  (T) ·  $322 + 462 = 784$  (N) ·  $280 + 141 = 421$  (E) ·  $122 + 111 = 233$  (F) ·  $205 + 429 = 634$  (U) ·  $187 + 92 = 279$  (H) ·  $257 + 307 = 564$  (D) ·  $89 + 117 = 206$  (P) ·  $345 + 198 = 543$  (L) ·  $295 + 481 = 776$  (O) ·  $247 + 424 = 671$  (C) ·  $480 + 477 = 957$  (A) ·  $534 + 241 = 775$  (W) ·  $272 + 141 = 413$  (S)

### Clue 3 (Subtraction): "APPLE JUICE MAKES THEM SNEEZE"

$298 - 29 = 269$  (A) ·  $923 - 29 = 894$  (H) ·  $228 - 17 = 211$  (L) ·  $554 - 20 = 534$  (P) ·  $984 - 377 = 607$  (U) ·  $922 - 269 = 653$  (K) ·  $404 - 288 = 116$  (I) ·  $420 - 314 = 106$  (M) ·  $356 - 190 = 166$  (T) ·  $834 - 198 = 636$  (N) ·  $207 - 58 = 149$  (J) ·  $727 - 200 = 527$  (C) ·  $644 - 20 = 624$  (S) ·  $405 - 171 = 234$  (Z) ·  $779 - 315 = 464$  (E)

### Clue 4 (Multiplication facts (1-12)): "SUGAR CRYSTALS SHONE IN THE LIGHT"

$12 \times 3 = 36$  (S) ·  $5 \times 2 = 10$  (L) ·  $11 \times 11 = 121$  (Y) ·  $5 \times 10 = 50$  (O) ·  $1 \times 5 = 5$  (A) ·  $7 \times 9 = 63$  (G) ·  $12 \times 5 = 60$  (C) ·  $4 \times 1 = 4$  (N) ·  $3 \times 10 = 30$  (E) ·  $11 \times 12 = 132$  (U) ·  $2 \times 9 = 18$  (T) ·  $11 \times 5 = 55$  (R) ·  $1 \times 3 = 3$  (I) ·  $9 \times 8 = 72$  (H)

### Clue 5 (Division facts (1-12)): surviving statement is box 6 → Gus Graham

$12 \div 4 = 3$  ·  $48 \div 4 = 12$  ·  $108 \div 12 = 9$  ·  $55 \div 11 = 5$  ·  $5 \div 5 = 1$  ·  $60 \div 6 = 10$  ·  $88 \div 11 = 8$  ·  $36 \div 9 = 4$  ·  $56 \div 8 = 7$  ·  $6 \div 3 = 2$  ·  $22 \div 2 = 11$