



# The Great Cookie Crumb Caper

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

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

Oh no! The Golden Whisk has been stolen from the kitchen right before the Great Bake-Off! One of the cookie apprentices is secretly the Crumb Bandit. We need to solve the clues to find out who took it!

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 Crumb Bandit is** \_\_\_\_\_

# Possible suspects

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

| NAME                | COOKIE MAGIC      | SECRET INGREDIENT | MIXING STYLE       | BAKER HAT COLOR | COOKIE WEAKNESS |
|---------------------|-------------------|-------------------|--------------------|-----------------|-----------------|
| Toby Tuile          | frosting swirling | marshmallow fluff | left handed mixer  | blue baker hat  | soggy dough     |
| Gaby Ginger         | frosting swirling | marshmallow fluff | right handed mixer | red baker hat   | stale crumbs    |
| Quinn Quince        | sprinkle blasting | cinnamon swirl    | right handed mixer | blue baker hat  | soggy dough     |
| Wally Wafer         | frosting swirling | marshmallow fluff | left handed mixer  | pink baker hat  | soggy dough     |
| Rosie Raisin        | chocolate melting | lemon zest        | right handed mixer | blue baker hat  | soggy dough     |
| Dana Doughnut       | sprinkle blasting | lemon zest        | right handed mixer | blue baker hat  | burnt cookies   |
| Katie Krumble       | sugar dusting     | marshmallow fluff | right handed mixer | blue baker hat  | soggy dough     |
| Charlie Chip        | dough rolling     | peppermint bark   | right handed mixer | blue baker hat  | soggy dough     |
| Fiona Fudge         | sprinkle blasting | salted caramel    | left handed mixer  | blue baker hat  | burnt cookies   |
| Uma Ube             | dough rolling     | lemon zest        | right handed mixer | blue baker hat  | soggy dough     |
| Leo Lemon           | sprinkle blasting | marshmallow fluff | left handed mixer  | red baker hat   | stale crumbs    |
| Izzy Icing          | frosting swirling | lemon zest        | left handed mixer  | blue baker hat  | stale crumbs    |
| Jack Jelly          | frosting swirling | peppermint bark   | left handed mixer  | blue baker hat  | burnt cookies   |
| Elmo Oatmeal        | sprinkle blasting | marshmallow fluff | right handed mixer | red baker hat   | soggy dough     |
| Mac Macaron         | dough rolling     | salted caramel    | right handed mixer | blue baker hat  | soggy dough     |
| Abby Alfajor        | chocolate melting | cinnamon swirl    | left handed mixer  | pink baker hat  | soggy dough     |
| Zach Zest           | sugar dusting     | marshmallow fluff | left handed mixer  | red baker hat   | stale crumbs    |
| Sammy Snickerdoodle | sprinkle blasting | salted caramel    | right handed mixer | blue baker hat  | stale crumbs    |
| Nelly Nougat        | sprinkle blasting | lemon zest        | right handed mixer | red baker hat   | soggy dough     |
| Ollie Oreo          | frosting swirling | salted caramel    | right handed mixer | pink baker hat  | soggy dough     |
| Benny Biscotti      | frosting swirling | lemon zest        | right handed mixer | red baker hat   | stale crumbs    |

## CLUE 1 Addition

We count the baking sheets on the left wall and add the ones on the right wall to find the total.

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

|              |             |             |             |             |             |             |             |              |             |             |             |             |             |             |             |             |             |             |             |
|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <div>T</div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div>T</div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> |
| 579          | 392         | 964         | 593         | 965         | 366         | 878         | 276         | 579          | 878         | 571         | 964         | 663         | 366         | 571         | 579         | 443         | 663         | 964         |             |

|             |             |             |             |             |             |             |             |              |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div></div> | <div>T</div> |
| 644         | 964         | 202         | 571         | 366         | 887         | 964         | 663         | 579          |

|                                            |                                            |                                            |
|--------------------------------------------|--------------------------------------------|--------------------------------------------|
| $287 + 292 = \square \rightarrow \text{T}$ | $593 + 285 = \square \rightarrow \text{D}$ | $131 + 71 = \square \rightarrow \text{M}$  |
| $117 + 159 = \square \rightarrow \text{I}$ | $296 + 297 = \square \rightarrow \text{B}$ | $624 + 341 = \square \rightarrow \text{A}$ |
| $419 + 244 = \square \rightarrow \text{S}$ | $279 + 608 = \square \rightarrow \text{Z}$ | $400 + 171 = \square \rightarrow \text{O}$ |
| $633 + 331 = \square \rightarrow \text{E}$ | $237 + 155 = \square \rightarrow \text{H}$ | $203 + 163 = \square \rightarrow \text{N}$ |
| $449 + 195 = \square \rightarrow \text{L}$ | $147 + 296 = \square \rightarrow \text{U}$ |                                            |

Scratch space:

## CLUE 2 Subtraction

The baker had a big bag of chocolate chips but spilled some. Subtracting the spilled chips reveals a secret message.

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

|                             |                            |                            |                             |                            |                            |                            |                             |                            |                             |                            |                            |                            |                            |                            |                             |                            |
|-----------------------------|----------------------------|----------------------------|-----------------------------|----------------------------|----------------------------|----------------------------|-----------------------------|----------------------------|-----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|-----------------------------|----------------------------|
| <div>T</div> <div>751</div> | <div></div> <div>699</div> | <div></div> <div>247</div> | <div>T</div> <div>751</div> | <div></div> <div>699</div> | <div></div> <div>640</div> | <div></div> <div>247</div> | <div></div> <div>406</div>  | <div></div> <div>515</div> | <div>T</div> <div>751</div> | <div></div> <div>640</div> | <div></div> <div>764</div> | <div></div> <div>515</div> | <div></div> <div>130</div> | <div></div> <div>640</div> | <div>T</div> <div>751</div> | <div></div> <div>699</div> |
| <div>T</div> <div>751</div> | <div></div> <div>699</div> | <div></div> <div>247</div> | <div></div> <div>764</div>  | <div></div> <div>640</div> | <div></div> <div>739</div> | <div></div> <div>699</div> | <div>T</div> <div>751</div> | <div></div> <div>699</div> | <div></div> <div>549</div>  | <div></div> <div>613</div> | <div></div> <div>615</div> |                            |                            |                            |                             |                            |

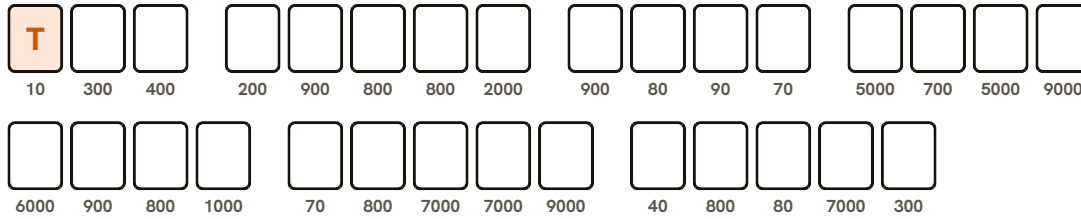
|                                                    |                                                    |                                                     |
|----------------------------------------------------|----------------------------------------------------|-----------------------------------------------------|
| $804 - 53 = \square \rightarrow \boxed{\text{T}}$  | $863 - 164 = \square \rightarrow \boxed{\text{H}}$ | $1080 - 316 = \square \rightarrow \boxed{\text{R}}$ |
| $789 - 174 = \square \rightarrow \boxed{\text{D}}$ | $425 - 178 = \square \rightarrow \boxed{\text{E}}$ | $883 - 334 = \square \rightarrow \boxed{\text{A}}$  |
| $690 - 284 = \square \rightarrow \boxed{\text{F}}$ | $390 - 260 = \square \rightarrow \boxed{\text{W}}$ | $884 - 271 = \square \rightarrow \boxed{\text{N}}$  |
| $752 - 13 = \square \rightarrow \boxed{\text{G}}$  | $780 - 140 = \square \rightarrow \boxed{\text{I}}$ | $727 - 212 = \square \rightarrow \boxed{\text{S}}$  |

Scratch space:

### CLUE 3 Place value

We look at the boxes of cookie dough stacked in tens and ones. The place value of the boxes reveals a hidden code on the shelf.

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



What is the value of the 1 in 7,819?  → **T**

What is the value of the 8 in 780?  → **U**

What is the value of the 2 in 1,238?  → **C**

What is the value of the 2 in 32,405?  → **K**

What is the value of the 3 in 9,349?  → **H**

What is the value of the 9 in 982?  → **R**

What is the value of the 7 in 274?  → **S**

What is the value of the 4 in 642?  → **D**

What is the value of the 4 in 5,475?  → **E**

What is the value of the 9 in 2,498?  → **N**

What is the value of the 7 in 755?  → **W**

What is the value of the 9 in 9,568?  → **Y**

What is the value of the 1 in 71,769?  → **M**

What is the value of the 6 in 6,897?  → **F**

What is the value of the 8 in 806?  → **O**

What is the value of the 7 in 7,509?  → **G**

What is the value of the 5 in 5,604?  → **A**

Scratch space:

### CLUE 4 Bar model word problems

We draw bar models to compare the height of the flour bags. The difference in the bars points us directly to a dropped note.

Draw a bar model to solve each word problem, then write its letter in the boxes to fill in the missing word.

A strand of 

|    |    |    |    |
|----|----|----|----|
| B  |    |    |    |
| 13 | 12 | 42 | 10 |

|    |    |    |    |    |
|----|----|----|----|----|
| B  |    |    |    |    |
| 13 | 27 | 20 | 10 | 37 |

|   |    |   |
|---|----|---|
| H |    | T |
|   | 27 |   |

 hair turned up at the scene.

One group collected 6 mixing bowls and another group collected 7 mixing bowls. How many mixing bowls in all?

draw a bar model

Answer:  → **B**

Baker has 200 sprinkles, packed 10 to a bag. How many bags can be filled?

draw a bar model

Answer:   $\rightarrow$  **K**

The red team has 34 sprinkles and the blue team has 24 sprinkles. How many more sprinkles does the red team have?

draw a bar model

Answer:  → **E**

There were 68 sprinkles in all. 26 sprinkles were used. How many sprinkles are left?

draw a bar model

Answer:  → **U**

There were 60 baking sheets in all. 23 baking sheets were used. How many baking sheets are left?

draw a bar model

Answer:  → **R**

There were 59 cookie cutters in all. 32 cookie cutters were used. How many cookie cutters are left?

draw a bar model

Answer:  → **A**

Baker has 2 times as many chocolate chips as a teammate. The teammate has 6 chocolate chips. How many chocolate chips does baker have?

draw a bar model

Answer:  → **L**

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

We split thirty fresh cookies equally among five clean plates. The number of cookies on each plate unlocks the safe.

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:**

$120 \div 12 = \boxed{\phantom{00}}$

$28 \div 7 = \boxed{\phantom{00}}$

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

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

$21 \div 7 = \boxed{\phantom{00}}$

$20 \div 4 = \boxed{\phantom{00}}$

$60 \div 10 = \boxed{\phantom{00}}$

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

$22 \div 11 = \boxed{\phantom{00}}$

$36 \div 4 = \boxed{\phantom{00}}$

$11 \div 1 = \boxed{\phantom{00}}$

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

1. The villain swirls sticky frosting on the walls, then sticks things with marshmallow fluff.
2. The villain dusts sugar to hide their tracks, then drops a piece of peppermint bark.
3. The villain melts chocolate over the keys, then drips gooey salted caramel.
4. The villain sprinkle blasts the floor, then leaves a scent of cinnamon.
5. The villain swirls sticky frosting on the walls, then squeezes a bit of lemon zest.
6. The villain swirls sticky frosting on the walls, then drops a piece of peppermint bark.
7. The villain dusts sugar to hide their tracks, then sticks things with marshmallow fluff.
8. The villain dusts sugar to hide their tracks, then drips gooey salted caramel.
9. The villain sprinkle blasts the floor, then drips gooey salted caramel.
10. The villain rolls out giant dough barriers, then drops a piece of peppermint bark.
11. The villain sprinkle blasts the floor, then sticks things with marshmallow fluff.
12. The villain rolls out giant dough barriers, then drips gooey salted caramel.

# Answer Key

## The Great Cookie Crumb Caper

### Culprit: Katie Krumble

sugar dusting · marshmallow fluff · right handed mixer · blue baker hat · soggy dough

Trail: Start 21 → Clue 1 15 → Clue 2 8 → Clue 3 6 → Clue 4 4 → Clue 5 1

#### Clue 1 (Addition): "THE BANDIT DOES NOT USE LEMON ZEST"

$287 + 292 = 579$  (T) ·  $593 + 285 = 878$  (D) ·  $131 + 71 = 202$  (M) ·  $117 + 159 = 276$  (I) ·  $296 + 297 = 593$  (B) ·  $624 + 341 = 965$  (A) ·  $419 + 244 = 663$  (S) ·  $279 + 608 = 887$  (Z) ·  $400 + 171 = 571$  (O) ·  $633 + 331 = 964$  (E) ·  $237 + 155 = 392$  (H) ·  $203 + 163 = 366$  (N) ·  $449 + 195 = 644$  (L) ·  $147 + 296 = 443$  (U)

#### Clue 2 (Subtraction): "THE THIEF STIRS WITH THE RIGHT HAND"

$804 - 53 = 751$  (T) ·  $863 - 164 = 699$  (H) ·  $1080 - 316 = 764$  (R) ·  $789 - 174 = 615$  (D) ·  $425 - 178 = 247$  (E) ·  $883 - 334 = 549$  (A) ·  $690 - 284 = 406$  (F) ·  $390 - 260 = 130$  (W) ·  $884 - 271 = 613$  (N) ·  $752 - 13 = 739$  (G) ·  $780 - 140 = 640$  (I) ·  $727 - 212 = 515$  (S)

#### Clue 3 (Place value): "THE CROOK RUNS AWAY FROM SOGGY DOUGH"

What is the value of the 1 in 7,819? = 10 (T) · What is the value of the 8 in 780? = 80 (U) · What is the value of the 2 in 1,238? = 200 (C) · What is the value of the 2 in 32,405? = 2000 (K) · What is the value of the 3 in 9,349? = 300 (H) · What is the value of the 9 in 982? = 900 (R) · What is the value of the 7 in 274? = 70 (S) · What is the value of the 4 in 642? = 40 (D) · What is the value of the 4 in 5,475? = 400 (E) · What is the value of the 9 in 2,498? = 90 (N) · What is the value of the 7 in 755? = 700 (W) · What is the value of the 9 in 9,568? = 9000 (Y) · What is the value of the 1 in 71,769? = 1000 (M) · What is the value of the 6 in 6,897? = 6000 (F) · What is the value of the 8 in 806? = 800 (O) · What is the value of the 7 in 7,509? = 7000 (G) · What is the value of the 5 in 5,604? = 5000 (A)

#### Clue 4 (Bar model word problems): "BLUE BAKER HAT"

One group collected 6 mixing bowls and another group collected 7 mixing bowls. How many mixing bowls in all? = 13 (B) · Baker has 200 sprinkles, packed 10 to a bag. How many bags can be filled? = 20 (K) · The red team has 34 sprinkles and the blue team has 24 sprinkles. How many more sprinkles does the red team have? = 10 (E) · There were 68 sprinkles in all. 26 sprinkles were used. How many sprinkles are left? = 42 (U) · There were 60 baking sheets in all. 23 baking sheets were used. How many baking sheets are left? = 37 (R) · There were 59 cookie cutters in all. 32 cookie cutters were used. How many cookie cutters are left? = 27 (A) · Baker has 2 times as many chocolate chips as a teammate. The teammate has 6 chocolate chips. How many chocolate chips does baker have? = 12 (L)

#### Clue 5 (Division facts (1-12)): surviving statement is box 7 → Katie Krumble

$120 \div 12 = 10$  ·  $28 \div 7 = 4$  ·  $48 \div 4 = 12$  ·  $88 \div 11 = 8$  ·  $21 \div 7 = 3$  ·  $20 \div 4 = 5$  ·  $60 \div 10 = 6$  ·  $8 \div 8 = 1$  ·  $22 \div 11 = 2$  ·  $36 \div 4 = 9$  ·  $11 \div 1 = 11$