



The Great Cupcake Caper

Grade 1 math · Addition, Subtraction, Word problems, Skip counting, Missing addends · Reading level grades 1-2

Detective: _____ **Date:** _____

Oh no! A beautiful cupcake has vanished from the display table right before the judging! Can you help us find the cupcake snatcher?

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 cupcake snatcher is _____

Possible suspects

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

NAME	FROSTING	DECORATING STYLE	BAKING HAND	APRON COLOR	WEAKNESS
Leo	blue vanilla	candy stars	uses left hand	yellow apron	cold water
Zac	yellow lemon	chocolate curls	uses right hand	yellow apron	cold water
Otis	pink strawberry	sparkle dust	uses left hand	blue apron	sticky syrup
Finn	blue vanilla	rainbow sprinkles	uses left hand	red apron	spilled milk
Sam	green apple	sparkle dust	uses right hand	blue apron	cold water
Luke	purple grape	candy stars	uses right hand	yellow apron	sticky syrup
Zoe	green apple	sparkle dust	uses right hand	red apron	sticky syrup
Nora	yellow lemon	rainbow sprinkles	uses left hand	yellow apron	sticky syrup
Ben	blue vanilla	sparkle dust	uses left hand	red apron	cold water
Jax	purple grape	sparkle dust	uses right hand	yellow apron	spilled milk
Penny	blue vanilla	sparkle dust	uses left hand	blue apron	sticky syrup
Joy	purple grape	candy stars	uses left hand	red apron	spilled milk
Toby	yellow lemon	chocolate curls	uses left hand	blue apron	cold water
Max	purple grape	candy stars	uses left hand	yellow apron	sticky syrup
Coco	blue vanilla	candy stars	uses left hand	yellow apron	sticky syrup
Ruby	pink strawberry	sparkle dust	uses left hand	red apron	cold water
Ivy	yellow lemon	chocolate curls	uses left hand	yellow apron	spilled milk
Ava	purple grape	chocolate curls	uses left hand	yellow apron	sticky syrup
Rex	yellow lemon	cookie crumbs	uses left hand	yellow apron	sticky syrup
Gus	pink strawberry	rainbow sprinkles	uses left hand	red apron	cold water
Mia	pink strawberry	cookie crumbs	uses left hand	red apron	sticky syrup

CLUE 1

Addition

We count the pink plates and blue plates. We add them to find the clue.

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

T							T										
9	11	19	20	17	2	9	8	11	19	6	11	2	20	17	15		

							T							
8	11	15	8	15	16	2	9	19	8	7	6	16	20	

$2 + 7 = \square \rightarrow \boxed{\text{T}}$

$5 + 12 = \square \rightarrow \boxed{\text{N}}$

$8 + 11 = \square \rightarrow \boxed{\text{E}}$

$1 + 1 = \square \rightarrow \boxed{\text{A}}$

$3 + 3 = \square \rightarrow \boxed{\text{R}}$

$12 + 8 = \square \rightarrow \boxed{\text{S}}$

$8 + 3 = \square \rightarrow \boxed{\text{H}}$

$3 + 4 = \square \rightarrow \boxed{\text{U}}$

$5 + 11 = \square \rightarrow \boxed{\text{L}}$

$6 + 2 = \square \rightarrow \boxed{\text{C}}$

$4 + 11 = \square \rightarrow \boxed{\text{O}}$

Scratch space:

CLUE 2 Subtraction

Some cupcakes are gone from the tray. We subtract to see how many.

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

Diagram illustrating the layout of the 3x10 grid. The grid is composed of three rows of boxes. The top row has 10 boxes, the middle row has 10 boxes, and the bottom row has 10 boxes. The boxes are arranged in three groups of three, with the last box in each group being shaded orange and containing the letter 'T'. The numbers below the boxes are: Row 1: 13, 17, 9, 2, 1, 18, 13, 15, 17, 9, 16, 6, 2, 9, 19, 13, 17, 9, 11, 16; Row 2: 7, 9, 4, 13, 17, 18, 1, 19.

$15 - 2 = \boxed{} \rightarrow \boxed{\text{T}}$

$20 - 2 = \boxed{} \rightarrow \boxed{\text{A}}$

$$19 - 8 = \boxed{} \rightarrow \boxed{1}$$

13 - 9 = → **F**

$$2 - 1 = \boxed{} \rightarrow \boxed{\text{N}}$$

$10 - 1 = \boxed{} \rightarrow \boxed{\text{E}}$

$$17 - 2 = \boxed{} \rightarrow \boxed{\text{C}}$$

$14 - 8 = \square \rightarrow \boxed{\mathbf{U}}$

$$9 - 2 = \boxed{} \rightarrow \boxed{\text{L}}$$

$8 - 6 = \square \rightarrow \boxed{\text{S}}$

$$20 - 4 = \boxed{} \rightarrow \boxed{\text{R}}$$

$20 - 1 = \boxed{} \rightarrow \boxed{\text{D}}$

$18 - 1 = \square \rightarrow \boxed{\text{H}}$

Scratch space:

CLUE 3 Word problems

The baker has a story problem. Solve it to find the next clue.

Solve each problem, then write its letter in the boxes to fill in the missing word.

Someone scared the villain off with S S U P

29 24 22 6 15 19 29 19 38

Baker Bob found 8 sprinkles yesterday and 21 more today.
How many sprinkles in all?

Answer: → **S**

Baker Bob found 8 muffins yesterday and 14 more today.
How many muffins in all?

Answer: → **I**

Baker Bob found 8 berries yesterday and 7 more today.
How many berries in all?

Answer: → **K**

There were 44 cherries. 6 were used up. How many cherries are left?

Answer: → **R**

There were 26 sprinkles. 2 were used up. How many sprinkles are left?

Answer: → **T**

Baker Bob found 3 cherries yesterday and 3 more today.
How many cherries in all?

Answer: → **C**

Baker Bob found 6 sprinkles yesterday and 13 more today.
How many sprinkles in all?

Answer: → **Y**

Scratch space:

CLUE 4 Skip counting

We count the baking boxes by twos. This helps us find another clue.

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

W															
42	110	65	35	27	30	24	6	9	130	110	28	70	35	30	6
					W										
21	110	40	40	35	42	6	130	10	35	30					

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, __, 45, 48 → **W**

Skip-count by 2s. Fill the blank: 2, 4, __, 8, 10 → **A**

Skip-count by 10s. Fill the blank: 10, 20, 30, __, 50, 60 → **L**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, __, 30, 33 → **U**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, __, 12, 14 → **R**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 → **F**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, __, 120, 130 → **E**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, __, 40, 45 → **O**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, __, 35, 40 → **N**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, __, 27, 30 → **D**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, __, 24, 27 → **Y**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, __, 140, 150 → **P**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, __, 75, 80 → **K**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, __, 30, 32 → **C**

Skip-count by 3s. Fill the blank: 3, 6, __, 12, 15 → **S**

Scratch space:

CLUE 5**Missing addends - the last clue**

A box needs ten cupcakes but has only six. Find the missing number.

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:

$6 + \underline{\quad} = 15$

$1 + \underline{\quad} = 5$

$8 + \underline{\quad} = 14$

$7 + \underline{\quad} = 17$

$9 + \underline{\quad} = 17$

$9 + \underline{\quad} = 16$

$8 + \underline{\quad} = 19$

$7 + \underline{\quad} = 9$

$3 + \underline{\quad} = 6$

$8 + \underline{\quad} = 20$

$9 + \underline{\quad} = 14$

Step 2 - cross out the sentence with each answer:

1. The villain swiped the vanilla cupcake, then dropped candy stars.
2. The villain stole the grape cupcake, then left chocolate curls.
3. The villain took the strawberry cupcake, then dropped candy stars.
4. The villain pinched the lemon cupcake, then scattered rainbow sprinkles.
5. The villain swiped the vanilla cupcake, then spilled cookie crumbs.
6. The villain stole the grape cupcake, then dropped candy stars.
7. The villain took the strawberry cupcake, then scattered rainbow sprinkles.
8. The villain pinched the lemon cupcake, then dropped candy stars.
9. The villain pinched the lemon cupcake, then spilled cookie crumbs.
10. The villain grabbed the apple cupcake, then scattered rainbow sprinkles.
11. The villain swiped the vanilla cupcake, then left chocolate curls.
12. The villain took the strawberry cupcake, then blew sparkle dust.

Answer Key

The Great Cupcake Caper

Culprit: Coco

blue vanilla · candy stars · uses left hand · yellow apron · sticky syrup

Trail: Start 21 → Clue 1 17 → Clue 2 13 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE SNATCHER HAS NO CHOCOLATE CURLS"

$2 + 7 = 9$ (T) · $5 + 12 = 17$ (N) · $8 + 11 = 19$ (E) · $1 + 1 = 2$ (A) · $3 + 3 = 6$ (R) · $12 + 8 = 20$ (S) · $8 + 3 = 11$ (H) · $3 + 4 = 7$ (U) · $5 + 11 = 16$ (L) · $6 + 2 = 8$ (C) · $4 + 11 = 15$ (O)

Clue 2 (Subtraction): "THE SNATCHER USED THEIR LEFT HAND"

$15 - 2 = 13$ (T) · $20 - 2 = 18$ (A) · $19 - 8 = 11$ (I) · $13 - 9 = 4$ (F) · $2 - 1 = 1$ (N) · $10 - 1 = 9$ (E) · $17 - 2 = 15$ (C) · $14 - 8 = 6$ (U) · $9 - 2 = 7$ (L) · $8 - 6 = 2$ (S) · $20 - 4 = 16$ (R) · $20 - 1 = 19$ (D) · $18 - 1 = 17$ (H)

Clue 3 (Word problems): "STICKY SYRUP"

Baker Bob found 8 sprinkles yesterday and 21 more today. How many sprinkles in all? = 29 (S) · Baker Bob found 8 muffins yesterday and 14 more today. How many muffins in all? = 22 (I) · Baker Bob found 8 berries yesterday and 7 more today. How many berries in all? = 15 (K) · There were 44 cherries. 6 were used up. How many cherries are left? = 38 (R) · There were 26 sprinkles. 2 were used up. How many sprinkles are left? = 24 (T) · Baker Bob found 3 cherries yesterday and 3 more today. How many cherries in all? = 6 (C) · Baker Bob found 6 sprinkles yesterday and 13 more today. How many sprinkles in all? = 19 (Y)

Clue 4 (Skip counting): "WE FOUND A SPECK ON A YELLOW APRON"

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, __, 45, 48 = 42 (W) · Skip-count by 2s. Fill the blank: 2, 4, __, 8, 10 = 6 (A) · Skip-count by 10s. Fill the blank: 10, 20, 30, __, 50, 60 = 40 (L) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, __, 30, 33 = 27 (U) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, __, 12, 14 = 10 (R) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 = 65 (F) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, __, 120, 130 = 110 (E) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, __, 40, 45 = 35 (O) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, __, 35, 40 = 30 (N) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, __, 27, 30 = 24 (D) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, __, 24, 27 = 21 (Y) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, __, 140, 150 = 130 (P) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, __, 75, 80 = 70 (K) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, __, 30, 32 = 28 (C) · Skip-count by 3s. Fill the blank: 3, 6, __, 12, 15 = 9 (S)

Clue 5 (Missing addends): surviving statement is box 1 → Coco

$6 + \underline{\quad} = 15 = 9$ · $1 + \underline{\quad} = 5 = 4$ · $8 + \underline{\quad} = 14 = 6$ · $7 + \underline{\quad} = 17 = 10$ · $9 + \underline{\quad} = 17 = 8$ · $9 + \underline{\quad} = 16 = 7$ · $8 + \underline{\quad} = 19 = 11$ · $7 + \underline{\quad} = 9 = 2$ · $3 + \underline{\quad} = 6 = 3$ · $8 + \underline{\quad} = 20 = 12$ · $9 + \underline{\quad} = 14 = 5$