



The Mystery of the Missing Cake

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

Detective: _____ Date: _____

Oh no! The grand prize birthday cake is gone from the bakery table! Only some sweet crumbs and sticky prints are left behind. We must find the Cake Thief before the big party starts!

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	FROSTING STYLE	FAVORITE TOPPING	MIXING HAND	FLOUR DUST COLOR	FOOD DISLIKE
Willy	green frosting	cookie crumbs	right handed mixer	yellow hair streaks	dislikes sour lemons
Lucy	pink buttercream	shiny sprinkles	left handed mixer	brown hair streaks	hates cold milk
Suzy	blue glaze	chocolate chips	right handed mixer	brown hair streaks	dislikes sour lemons
Penny	yellow custard	chocolate chips	left handed mixer	yellow hair streaks	hates cold milk
Mia	white whipped cream	cookie crumbs	right handed mixer	brown hair streaks	hates cold milk
Sammy	pink buttercream	shiny sprinkles	left handed mixer	yellow hair streaks	afraid of carrots
Sally	white whipped cream	cookie crumbs	right handed mixer	pink hair streaks	hates cold milk
Leo	pink buttercream	shiny sprinkles	left handed mixer	yellow hair streaks	hates cold milk
Amy	pink buttercream	shiny sprinkles	left handed mixer	brown hair streaks	afraid of carrots
Danny	pink buttercream	gummy bears	left handed mixer	yellow hair streaks	hates cold milk
Jenny	white whipped cream	gummy bears	left handed mixer	pink hair streaks	hates cold milk
Zoe	pink buttercream	cookie crumbs	left handed mixer	pink hair streaks	afraid of carrots
Toby	white whipped cream	shiny sprinkles	right handed mixer	brown hair streaks	hates cold milk
Bobby	green frosting	gummy bears	left handed mixer	yellow hair streaks	hates cold milk
Molly	green frosting	cookie crumbs	right handed mixer	yellow hair streaks	hates cold milk
Ruby	pink buttercream	gummy bears	right handed mixer	pink hair streaks	afraid of carrots
Benny	yellow custard	cookie crumbs	left handed mixer	yellow hair streaks	hates cold milk
Ella	pink buttercream	cookie crumbs	left handed mixer	yellow hair streaks	hates cold milk
Freddy	white whipped cream	shiny sprinkles	left handed mixer	brown hair streaks	hates cold milk
Billy	yellow custard	gummy bears	right handed mixer	pink hair streaks	dislikes sour lemons
Tommy	blue glaze	cookie crumbs	right handed mixer	brown hair streaks	dislikes sour lemons

CLUE 1 Addition

We need to find the missing cake. Let us count the clean plates. We add three blue plates and four red plates.

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

A 2x15 grid of boxes. The top row contains 15 boxes with the following values from left to right: 'T', 14, 19, 18, 10, 3, 13, 18, 'T', 14, 19, 11, 18, 20, 17, 11, 17, 7, 16, 'T', 14. The bottom row contains 15 boxes with the following values from left to right: 15, 9, 18, 12, 15, 5, 5, 4, 2, 18, 3, 8, 9, and 11 empty boxes.

T	14	19	18	10	3	13	18	T	14	19	11	18	20	17	11	17	7	16	T	14
15	9	18	12	15	5	5	4	2	18	3	8	9								

$9 + 5 = \boxed{} \rightarrow \boxed{\text{T}}$

$$5 + 4 = \boxed{} \rightarrow \boxed{\mathbf{S}}$$

$3 + 7 = \boxed{} \rightarrow \boxed{\text{C}}$

$6 + 11 = \boxed{} \rightarrow \boxed{\mathbf{D}}$

$9 + 3 = \boxed{} \rightarrow \boxed{\mathbf{G}}$

$1 + 1 = \boxed{} \rightarrow \boxed{\mathbf{B}}$

$3 + 1 = \boxed{} \rightarrow \boxed{\text{Y}}$

$$6 + 10 = \boxed{} \rightarrow \boxed{0}$$

$$4 + 4 = \boxed{} \rightarrow \boxed{\text{R}}$$

$14 + 6 = \boxed{} \rightarrow \boxed{\text{F}}$

$10 + 9 = \square \rightarrow \square$

$$8 + 7 = \boxed{} \rightarrow \boxed{\text{U}}$$

$2 + 5 = \square \rightarrow \boxed{\mathbf{N}}$

$7 + 4 = \boxed{} \rightarrow \boxed{1}$

$4 + 1 = \square \rightarrow \boxed{\mathbf{M}}$

$2 + 1 = \square \rightarrow \boxed{\mathbf{A}}$

$12 + 6 = \boxed{} \rightarrow \boxed{\text{E}}$

$3 + 10 = \square \rightarrow \square$

Scratch space:

CLUE 2

Subtraction

We check the cookie jar. There were ten cookies in the jar. Now there are only six. How many did the thief take?

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

T				T															
16	8	17	19	16	15	1	4	14	19	2	13	13	11	9	12	19	13	11	
T							T												
16	8	17	6	17	18	16													

$17 - 1 = \square \rightarrow \boxed{\text{T}}$

$20 - 1 = \square \rightarrow \boxed{\text{S}}$

$6 - 2 = \square \rightarrow \boxed{\text{K}}$

$19 - 6 = \square \rightarrow \boxed{\text{O}}$

$9 - 8 = \square \rightarrow \boxed{\text{C}}$

$9 - 7 = \square \rightarrow \boxed{\text{P}}$

$12 - 3 = \square \rightarrow \boxed{\text{W}}$

$16 - 8 = \square \rightarrow \boxed{\text{H}}$

$12 - 6 = \square \rightarrow \boxed{\text{L}}$

$19 - 8 = \square \rightarrow \boxed{\text{N}}$

$16 - 1 = \square \rightarrow \boxed{\text{I}}$

$19 - 2 = \square \rightarrow \boxed{\text{E}}$

$20 - 2 = \square \rightarrow \boxed{\text{F}}$

$20 - 6 = \square \rightarrow \boxed{\text{Y}}$

$16 - 4 = \square \rightarrow \boxed{\text{A}}$

Scratch space:

CLUE 3

Word problems

Let us read the baker notes. A happy customer wants two sweet treats. Each treat needs one bright candle.

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

Someone scared the villain off with

H								L	D	M	I	L	K
40	13	37	20	26	14	19							

.

Baker Betty lined up 10 rows of 4 aprons. How many aprons in all?

Answer: → **H**

There were 21 sprinkles. 8 were used up. How many sprinkles are left?

Answer: → **A**

Baker Betty lined up 5 rows of 4 aprons. How many aprons in all?

Answer: → **E**

There were 46 spoons. 9 were used up. How many spoons are left?

Answer: → **T**

There were 36 plates. 10 were used up. How many plates are left?

Answer: → **S**

There were 29 sprinkles. 10 were used up. How many sprinkles are left?

Answer: → **O**

Baker Betty found 4 candles yesterday and 10 more today. How many candles in all?

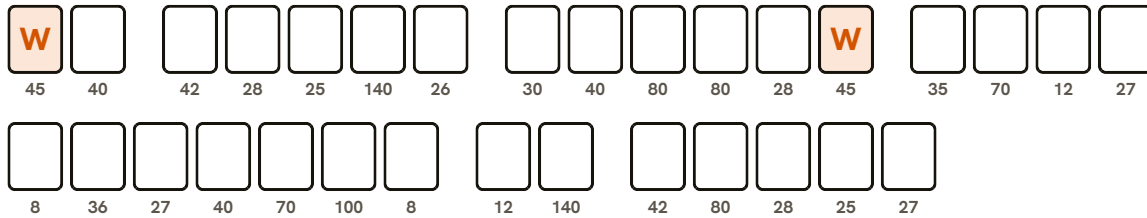
Answer: → **C**

Scratch space:

CLUE 4 Skip counting

Look at the sticky footprints! They go in pairs. Let us count them by twos to see where they lead.

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



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

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 → **U**

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

Skip-count by 3s. Fill the blank: 3, 6, 9, __, 15, 18 → **I**

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

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, __, 39, 42 → **T**

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

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

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

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, __, 150, 160 → **N**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, __, 45, 50 → **E**

Skip-count by 2s. Fill the blank: 2, 4, 6, __, 10, 12 → **S**

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

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

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, __, 28, 30 → **D**

Scratch space:

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

We have five empty cake boxes. We need eight boxes in total. How many more boxes must we fetch?

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:

$7 + \underline{\quad} = 19$

$9 + \underline{\quad} = 10$

$5 + \underline{\quad} = 15$

$2 + \underline{\quad} = 4$

$7 + \underline{\quad} = 13$

$4 + \underline{\quad} = 15$

$8 + \underline{\quad} = 13$

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

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

$8 + \underline{\quad} = 17$

$1 + \underline{\quad} = 9$

Step 2 - cross out the sentence with each answer:

1. The villain swiped the pink buttercream cake, then smeared cookie crumbs on the wall.
2. The villain snatched the white whipped cream cake, then dropped shiny sprinkles on the floor.
3. The villain stole the yellow custard cake, then smeared cookie crumbs on the wall.
4. The villain swiped the pink buttercream cake, then scattered chocolate chips on the rug.
5. The villain grabbed the green frosting cake, then left red cherries on the counter.
6. The villain snatched the white whipped cream cake, then scattered chocolate chips on the rug.
7. The villain swiped the pink buttercream cake, then left red cherries on the counter.
8. The villain took the blue glaze cake, then spilled gummy bears near the door.
9. The villain grabbed the green frosting cake, then smeared cookie crumbs on the wall.
10. The villain stole the yellow custard cake, then scattered chocolate chips on the rug.
11. The villain grabbed the green frosting cake, then scattered chocolate chips on the rug.
12. The villain swiped the pink buttercream cake, then dropped shiny sprinkles on the floor.

Answer Key

The Mystery of the Missing Cake

Culprit: Benny

yellow custard · cookie crumbs · left handed mixer · yellow hair streaks · hates cold milk

Trail: Start 21 → Clue 1 16 → Clue 2 9 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE CAKE THIEF DID NOT USE GUMMY BEARS"

$9 + 5 = 14$ (T) · $5 + 4 = 9$ (S) · $3 + 7 = 10$ (C) · $6 + 11 = 17$ (D) · $9 + 3 = 12$ (G) · $1 + 1 = 2$ (B) · $3 + 1 = 4$ (Y) · $6 + 10 = 16$ (O) · $4 + 4 = 8$ (R) · $14 + 6 = 20$ (F) · $10 + 9 = 19$ (H) · $8 + 7 = 15$ (U) · $2 + 5 = 7$ (N) · $7 + 4 = 11$ (I) · $4 + 1 = 5$ (M) · $2 + 1 = 3$ (A) · $12 + 6 = 18$ (E) · $3 + 10 = 13$ (K)

Clue 2 (Subtraction): "THE STICKY SPOON WAS ON THE LEFT"

$17 - 1 = 16$ (T) · $20 - 1 = 19$ (S) · $6 - 2 = 4$ (K) · $19 - 6 = 13$ (O) · $9 - 8 = 1$ (C) · $9 - 7 = 2$ (P) · $12 - 3 = 9$ (W) · $16 - 8 = 8$ (H) · $12 - 6 = 6$ (L) · $19 - 8 = 11$ (N) · $16 - 1 = 15$ (I) · $19 - 2 = 17$ (E) · $20 - 2 = 18$ (F) · $20 - 6 = 14$ (Y) · $16 - 4 = 12$ (A)

Clue 3 (Word problems): "HATES COLD MILK"

Baker Betty lined up 10 rows of 4 aprons. How many aprons in all? = 40 (H) · There were 21 sprinkles. 8 were used up. How many sprinkles are left? = 13 (A) · Baker Betty lined up 5 rows of 4 aprons. How many aprons in all? = 20 (E) · There were 46 spoons. 9 were used up. How many spoons are left? = 37 (T) · There were 36 plates. 10 were used up. How many plates are left? = 26 (S) · There were 29 sprinkles. 10 were used up. How many sprinkles are left? = 19 (O) · Baker Betty found 4 candles yesterday and 10 more today. How many candles in all? = 14 (C)

Clue 4 (Skip counting): "WE FOUND YELLOW HAIR STREAKS IN FLOUR"

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, __, 50, 55 = 45 (W) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, __, 110, 120 = 100 (K) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 = 25 (U) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, __, 30, 33 = 27 (R) · Skip-count by 3s. Fill the blank: 3, 6, 9, __, 15, 18 = 12 (I) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, __, 75, 80 = 70 (A) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, __, 39, 42 = 36 (T) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, __, 30, 32 = 28 (O) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, __, 33, 36 = 30 (Y) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, __, 40, 45 = 35 (H) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, __, 150, 160 = 140 (N) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, __, 45, 50 = 40 (E) · Skip-count by 2s. Fill the blank: 2, 4, 6, __, 10, 12 = 8 (S) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, __, 90, 100 = 80 (L) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, __, 45, 48 = 42 (F) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, __, 28, 30 = 26 (D)

Clue 5 (Missing addends): surviving statement is box 3 → Benny

$7 + \underline{\quad} = 19 = 12$ · $9 + \underline{\quad} = 10 = 1$ · $5 + \underline{\quad} = 15 = 10$ · $2 + \underline{\quad} = 4 = 2$ · $7 + \underline{\quad} = 13 = 6$ · $4 + \underline{\quad} = 15 = 11$ · $8 + \underline{\quad} = 13 = 5$ · $1 + \underline{\quad} = 5 = 4$ · $9 + \underline{\quad} = 16 = 7$ · $8 + \underline{\quad} = 17 = 9$ · $1 + \underline{\quad} = 9 = 8$