



Case of the Vanishing Golden Owl

Grade 2 math · Place value, Addition, Rounding, Skip counting, Missing addends · Reading level grades 3-4

Detective: _____ **Date:** _____

Overnight, the Golden Owl vanished from its glass case at the Riverside Museum. Twenty-one people had a key to the building, and one of them is the thief. Solve each clue's math to decode it, cross suspects off the list, and name the one person left.

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 Museum Thief is _____

Possible suspects

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

NAME	SPECIALTY	GADGET	HAND	HAT	WEAKNESS
Opal Reed	Lock Picking	Grappling Hook	Right-handed	Yellow	Peanuts
Bram Kettle	Lock Picking	Night Goggles	Right-handed	Red	Peanuts
Penny Quill	Sneaking	Rubber Gloves	Left-handed	Blue	Peanuts
Hazel Finch	Disguises	Roller Skates	Right-handed	Yellow	Bells
Clem Button	Wall Climbing	Night Goggles	Left-handed	Blue	Peanuts
Daisy Nook	Code Cracking	Night Goggles	Left-handed	Red	Peanuts
Mabel Stone	Code Cracking	Glider Wings	Right-handed	Red	Bells
Ziggy Plum	Lock Picking	Grappling Hook	Right-handed	Red	Peanuts
Felix Tumble	Code Cracking	Roller Skates	Right-handed	Yellow	Bells
Rufus Brindle	Lock Picking	Grappling Hook	Right-handed	Red	Bells
Milo Tuck	Disguises	Glider Wings	Left-handed	Blue	Cats
Otis Crumb	Disguises	Night Goggles	Right-handed	Yellow	Peanuts
Hugo Flint	Disguises	Glider Wings	Right-handed	Yellow	Peanuts
Tilly Sprocket	Wall Climbing	Rubber Gloves	Right-handed	Yellow	Peanuts
Jasper Dunn	Code Cracking	Night Goggles	Left-handed	Yellow	Peanuts
Wren Hollis	Wall Climbing	Glider Wings	Left-handed	Red	Bells
Barnaby Root	Code Cracking	Glider Wings	Right-handed	Blue	Peanuts
Rosie Vane	Wall Climbing	Grappling Hook	Left-handed	Yellow	Bells
Dot Marigold	Disguises	Roller Skates	Right-handed	Yellow	Peanuts
Percy Wick	Disguises	Grappling Hook	Left-handed	Blue	Peanuts
Nell Copper	Disguises	Night Goggles	Right-handed	Red	Cats

CLUE 1 Place value

Detective, check the magic register lock! Break down the place values to open the chest and get your first clue.

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

T			T									T							
51	14	11	51	14	70	11	21	59	85	90	90	39	51	16	41	70	89	11	

What number has 5 tens and 1 one?

→ T

What number has 8 tens and 9 ones?

→ D

What number has 2 tens and 1 one?

→ F

What number has 1 ten and 1 one?

→ E

What number has 4 tens and 1 one?

→ L

What number has 7 tens and 0 ones?

→ I

What number has 1 ten and 4 ones?

→ H

What number has 5 tens and 9 ones?

→ C

What number has 1 ten and 6 ones?

→ G

What number has 3 tens and 9 ones?

→ O

What number has 9 tens and 0 ones?

→ N

What number has 8 tens and 5 ones?

→ A

Scratch space:

CLUE 2

Addition

Count the glowing jack-o-lanterns along the path! Add up both rows to find out what happened next.

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

A			A				A									
73	53	40	73	91	77	33	73	56	84	22	68	84	22	95	68	81

											A					
56	91	95	84	68	91	95	53	22	84	22	73	44	77	68	77	

$47 + 26 = \square \rightarrow \boxed{\text{A}}$

$36 + 17 = \square \rightarrow \boxed{\text{G}}$

$22 + 18 = \square \rightarrow \boxed{\text{U}}$

$18 + 26 = \square \rightarrow \boxed{\text{N}}$

$39 + 38 = \square \rightarrow \boxed{\text{D}}$

$58 + 37 = \square \rightarrow \boxed{\text{I}}$

$7 + 15 = \square \rightarrow \boxed{\text{H}}$

$15 + 18 = \square \rightarrow \boxed{\text{S}}$

$24 + 44 = \square \rightarrow \boxed{\text{E}}$

$24 + 57 = \square \rightarrow \boxed{\text{F}}$

$48 + 43 = \square \rightarrow \boxed{\text{R}}$

$21 + 35 = \square \rightarrow \boxed{\text{W}}$

$52 + 32 = \square \rightarrow \boxed{\text{T}}$

Scratch space:

CLUE 3 Rounding

The spooky radar screen shows a distance rounded to the nearest ten! Round correctly to unlock a secret message.

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

T			T															
900	40	700	900	40	20	700	70	50	60	700	700	200	700	30	60	700	80	800
													T					
80	400	80	600	90	70	300	700	80	60	500	900	50						

Round 858 to the nearest hundred → **T**

Round 372 to the nearest hundred → **B**

Round 20 to the nearest ten → **I**

Round 29 to the nearest ten → **D**

Round 675 to the nearest hundred → **E**

Round 93 to the nearest ten → **O**

Round 768 to the nearest hundred → **R**

Round 629 to the nearest hundred → **G**

Round 326 to the nearest hundred → **P**

Round 493 to the nearest hundred → **U**

Round 50 to the nearest ten → **S**

Round 67 to the nearest ten → **F**

Round 83 to the nearest ten → **A**

Round 173 to the nearest hundred → **Z**

Round 44 to the nearest ten → **H**

Round 60 to the nearest ten → **N**

Scratch space:

CLUE 4 Skip counting

Follow the wrapper trail across the plaza! Skip count by fives to track where the villain ran.

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

A								A					A			A		
90	65	50	120	120	21	60	25	90	80	80	25	39	50	90	70	60	90	22

	A										A			
55	90	27	20	25	80	21	24	80	25	50	55	90	22	50

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

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

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

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, __, 70, 80 → **W**

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

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

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, __, 130, 140 → **L**

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

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

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

Skip-count by 5s. Fill the blank: 5, 10, 15, __, 25, 30 → **G**

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

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

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

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, __, 42, 45 →

Scratch space:

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

The candy display jar is only half full! Find the missing number to solve the case.

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:

$4 + \underline{\quad} = 8$

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

$4 + \underline{\quad} = 14$

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

$10 + \underline{\quad} = 11$

$3 + \underline{\quad} = 14$

$3 + \underline{\quad} = 10$

$10 + \underline{\quad} = 12$

$6 + \underline{\quad} = 12$

$5 + \underline{\quad} = 10$

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

Step 2 - cross out the sentence with each answer:

1. The villain slips in dressed as a night guard, then swings down from the skylight on a grappling hook.
2. The villain picks the lock on the side door, then lifts the glass without leaving fingerprints.
3. The villain picks the lock on the side door, then swings down from the skylight on a grappling hook.
4. The villain slips in dressed as a night guard, then zooms down the hall on roller skates.
5. The villain climbs the wall to an open window, then zooms down the hall on roller skates.
6. The villain tiptoes past the sleeping guard, then finds the case in the dark with night goggles.
7. The villain cracks the alarm code, then zooms down the hall on roller skates.
8. The villain climbs the wall to an open window, then swings down from the skylight on a grappling hook.
9. The villain climbs the wall to an open window, then lifts the glass without leaving fingerprints.
10. The villain slips in dressed as a night guard, then finds the case in the dark with night goggles.
11. The villain slips in dressed as a night guard, then lifts the glass without leaving fingerprints.
12. The villain tiptoes past the sleeping guard, then lifts the glass without leaving fingerprints.

Answer Key

Case of the Vanishing Golden Owl

Culprit: Tilly Sprocket

Wall Climbing · Rubber Gloves · Right-handed · Yellow · Peanuts

Trail: Start 21 → Clue 1 16 → Clue 2 10 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE THIEF CANNOT GLIDE"

What number has 5 tens and 1 one? = 51 (T) · What number has 8 tens and 9 ones? = 89 (D) · What number has 2 tens and 1 one? = 21 (F) · What number has 1 ten and 1 one? = 11 (E) · What number has 4 tens and 1 one? = 41 (L) · What number has 7 tens and 0 ones? = 70 (I) · What number has 1 ten and 4 ones? = 14 (H) · What number has 5 tens and 9 ones? = 59 (C) · What number has 1 ten and 6 ones? = 16 (G) · What number has 3 tens and 9 ones? = 39 (O) · What number has 9 tens and 0 ones? = 90 (N) · What number has 8 tens and 5 ones? = 85 (A)

Clue 2 (Addition): "A GUARD SAW THE THIEF WRITE RIGHT HANDED"

$47 + 26 = 73$ (A) · $36 + 17 = 53$ (G) · $22 + 18 = 40$ (U) · $18 + 26 = 44$ (N) · $39 + 38 = 77$ (D) · $58 + 37 = 95$ (I) · $7 + 15 = 22$ (H) · $15 + 18 = 33$ (S) · $24 + 44 = 68$ (E) · $24 + 57 = 81$ (F) · $48 + 43 = 91$ (R) · $21 + 35 = 56$ (W) · $52 + 32 = 84$ (T)

Clue 3 (Rounding): "THE THIEF SNEEZED NEAR A BAG OF PEANUTS"

Round 858 to the nearest hundred = 900 (T) · Round 372 to the nearest hundred = 400 (B) · Round 20 to the nearest ten = 20 (I) · Round 29 to the nearest ten = 30 (D) · Round 675 to the nearest hundred = 700 (E) · Round 93 to the nearest ten = 90 (O) · Round 768 to the nearest hundred = 800 (R) · Round 629 to the nearest hundred = 600 (G) · Round 326 to the nearest hundred = 300 (P) · Round 493 to the nearest hundred = 500 (U) · Round 50 to the nearest ten = 50 (S) · Round 67 to the nearest ten = 70 (F) · Round 83 to the nearest ten = 80 (A) · Round 173 to the nearest hundred = 200 (Z) · Round 44 to the nearest ten = 40 (H) · Round 60 to the nearest ten = 60 (N)

Clue 4 (Skip counting): "A YELLOW HAT THREAD WAS CAUGHT ON THE CASE"

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

Clue 5 (Missing addends): surviving statement is box 9 → Tilly Sprocket

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