



The Case of the Missing Yarn Ball

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

Detective: _____ Date: _____

Someone swiped the Golden Ball of Yarn from the top shelf of the Cozy Cat Cafe. It was the best toy in the cafe. All the kittens were playing nearby when it disappeared. We need to find the sneaky kitten 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 sneaky kitten is _____

Possible suspects

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

NAME	FAVORITE TOY	COLLAR BELL	FUR PATTERN	TAIL TYPE	DISTRACTION
Simba	feather wand	shiny gold bell	solid spots	fluffy tail	tuna treat
Loki	yarn strand	silent bronze bell	solid spots	short tail	warm milk
Lily	catnip mouse	silent bronze bell	solid spots	fluffy tail	catnap spot
Chloe	catnip mouse	silent bronze bell	solid spots	fluffy tail	tuna treat
Rosie	catnip mouse	shiny gold bell	solid spots	short tail	tuna treat
Cleo	laser pointer	silent bronze bell	solid spots	short tail	tuna treat
Lucy	yarn strand	sparkly pink bell	solid spots	fluffy tail	catnap spot
Bella	feather wand	sparkly pink bell	solid spots	short tail	tuna treat
Leo	laser pointer	bright blue bell	striped patches	fluffy tail	tuna treat
Nala	feather wand	tiny silver bell	solid spots	curly tail	tuna treat
Lola	catnip mouse	silent bronze bell	striped patches	short tail	tuna treat
Ginger	crinkle ball	silent bronze bell	solid spots	short tail	tuna treat
Luna	crinkle ball	tiny silver bell	striped patches	short tail	tuna treat
Toby	feather wand	sparkly pink bell	striped patches	curly tail	tuna treat
Max	feather wand	shiny gold bell	solid spots	fluffy tail	warm milk
Charlie	crinkle ball	bright blue bell	striped patches	curly tail	warm milk
Milo	catnip mouse	shiny gold bell	solid spots	curly tail	tuna treat
Sam	catnip mouse	silent bronze bell	solid spots	short tail	tuna treat
Sophie	catnip mouse	sparkly pink bell	striped patches	curly tail	warm milk
Buster	crinkle ball	shiny gold bell	striped patches	fluffy tail	catnap spot
Daisy	laser pointer	bright blue bell	solid spots	short tail	warm milk

CLUE 1 Addition

We found a box of toy mice. There were four blue mice and three red mice. We added them together to count them all. Underneath the pile of toys, we found a crumpled note.

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

T										T	T								
20	5	2	16	8	2	18	15	13	15	3	20	20	2	8	6	11	2	16	
		T																	
8	11	20	4	2	18	17	18	7	3	8	15	10	2	9	9				

$13 + 7 = \square \rightarrow$ T	$4 + 4 = \square \rightarrow$ N	$2 + 1 = \square \rightarrow$ I	$9 + 6 = \square \rightarrow$ K
$5 + 5 = \square \rightarrow$ B	$1 + 3 = \square \rightarrow$ W	$4 + 5 = \square \rightarrow$ L	$6 + 11 = \square \rightarrow$ R
$6 + 10 = \square \rightarrow$ S	$2 + 5 = \square \rightarrow$ P	$3 + 10 = \square \rightarrow$ Y	
$7 + 11 = \square \rightarrow$ A	$1 + 1 = \square \rightarrow$ E	$7 + 4 = \square \rightarrow$ O	$3 + 2 = \square \rightarrow$ H
$1 + 5 = \square \rightarrow$ D			

Scratch space:

Subtraction

A bowl of fish treats sat on the counter. There were ten treats, but someone ate four of them. We did the subtraction to see how many were left, and found a clue card in the bowl.

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

Diagram illustrating a sequence of numbers arranged in two rows. The top row contains 15 boxes with values: 16, 5, 11, 13, 9, 11, 15, 12, 6, 12, 18, 16, 16, 11, 9, 5, 15, 13. The bottom row contains 10 boxes with values: 13, 14, 3, 18, 7, 13, 19, 14, 16, 13. The boxes containing 16, 16, and 16 are highlighted in orange and labeled with a 'T'.

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

$17 - 6 = \boxed{} \rightarrow \boxed{\text{E}}$

$8 - 1 = \boxed{} \rightarrow \boxed{\mathbf{D}}$

$11 - 8 = \boxed{} \rightarrow \boxed{\text{L}}$

$$20 - 6 = \boxed{} \rightarrow \boxed{0}$$

9 - 3 = → **Y**

$18 - 5 = \boxed{} \rightarrow \boxed{\mathbf{S}}$

$17 - 8 = \boxed{} \rightarrow \boxed{\text{N}}$

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

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

$$20 - 2 = \boxed{} \rightarrow \boxed{1}$$

$14 - 2 = \boxed{} \rightarrow \boxed{\text{K}}$

$$7 - 2 = \boxed{} \rightarrow \boxed{\text{H}}$$

Scratch space:

CLUE 3 Skip counting

There are paw prints on the dusty floor. We counted the muddy prints by twos to follow the path. The muddy path led us straight to a scrap of paper under the rug.

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

T											T	T					
60	12	22	36	120	22	65	24	6	24	26	60	60	22	120	15	65	120

T			T				T				T
60	100	65	60	42	120	65	60	15	22	65	60

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, __, 65, 70 → **T**

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

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

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, __, 26, 28 → **K**

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

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, __, 14, 16 → **H**

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

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

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

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

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

Skip-count by 5s. Fill the blank: 5, 10, __, 20, 25 → **R**

Scratch space:

CLUE 4
Place value (tens & ones)

We found shiny bells in the toy chest. There was one box of ten bells and six single bells left out. We counted the tens and ones to find the secret number on the tag.

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

T												T	T								
38	15	24	75	94	24	86	54	42	54	33	38	38	24	94	15	86	78	86			
								T	T												
92	24	14	42	75	15	27	14	38	38	86	33	23									

What number has 3 tens and 8 ones? → **T**

What number has 8 tens and 6 ones? → **A**

What number has 1 ten and 4 ones? → **R**

What number has 5 tens and 4 ones? → **K**

What number has 2 tens and 4 ones? → **E**

What number has 4 tens and 2 ones? → **Y**

What number has 9 tens and 2 ones? → **V**

What number has 7 tens and 8 ones? → **D**

What number has 1 ten and 5 ones? → **H**

What number has 3 tens and 3 ones? → **I**

What number has 9 tens and 4 ones? → **N**

What number has 7 tens and 5 ones? → **S**

What number has 2 tens and 7 ones? → **O**

What number has 2 tens and 3 ones? → **L**

Scratch space:

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

The toy basket holds eight balls. There are only five inside right now. We worked out how many balls were missing, which showed us where the last clue was hidden.

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:

$4 + \underline{\quad} = 6$

$2 + \underline{\quad} = 3$

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

$10 + \underline{\quad} = 22$

$1 + \underline{\quad} = 4$

$4 + \underline{\quad} = 9$

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

$10 + \underline{\quad} = 19$

$5 + \underline{\quad} = 12$

$10 + \underline{\quad} = 16$

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

Step 2 - cross out the sentence with each answer:

1. The villain rolls the crinkle ball, then hides their silent bronze bell.
2. The villain pounces on the catnip mouse, then hides their silent bronze bell.
3. The villain tangles up the yarn strand, then rings their shiny gold bell.
4. The villain chases the red laser pointer, then hides their silent bronze bell.
5. The villain bats the feather wand around, then shakes their bright blue bell.
6. The villain bats the feather wand around, then tolls their tiny silver bell.
7. The villain rolls the crinkle ball, then tolls their tiny silver bell.
8. The villain pounces on the catnip mouse, then jingles their sparkly pink bell.
9. The villain bats the feather wand around, then rings their shiny gold bell.
10. The villain tangles up the yarn strand, then shakes their bright blue bell.
11. The villain pounces on the catnip mouse, then rings their shiny gold bell.
12. The villain pounces on the catnip mouse, then tolls their tiny silver bell.

Answer Key

The Case of the Missing Yarn Ball

Culprit: Cleo

laser pointer · silent bronze bell · solid spots · short tail · tuna treat

Trail: Start 21 → Clue 1 17 → Clue 2 12 → Clue 3 8 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE SNEAKY KITTEN DOES NOT WEAR A PINK BELL"

$13 + 7 = 20$ (T) · $4 + 4 = 8$ (N) · $2 + 1 = 3$ (I) · $9 + 6 = 15$ (K) · $5 + 5 = 10$ (B) · $1 + 3 = 4$ (W) · $4 + 5 = 9$ (L) · $6 + 11 = 17$ (R) · $6 + 10 = 16$ (S) · $2 + 5 = 7$ (P) · $3 + 10 = 13$ (Y) · $7 + 11 = 18$ (A) · $1 + 1 = 2$ (E) · $7 + 4 = 11$ (O) · $3 + 2 = 5$ (H) · $1 + 5 = 6$ (D)

Clue 2 (Subtraction): "THE SNEAKY KITTEN HAS SOLID SPOTS"

$17 - 1 = 16$ (T) · $17 - 6 = 11$ (E) · $8 - 1 = 7$ (D) · $11 - 8 = 3$ (L) · $20 - 6 = 14$ (O) · $9 - 3 = 6$ (Y) · $18 - 5 = 13$ (S) · $17 - 8 = 9$ (N) · $17 - 2 = 15$ (A) · $20 - 1 = 19$ (P) · $20 - 2 = 18$ (I) · $14 - 2 = 12$ (K) · $7 - 2 = 5$ (H)

Clue 3 (Skip counting): "THE SNEAKY KITTEN RAN TO A TUNA TREAT"

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

Clue 4 (Place value (tens & ones)): "THE SNEAKY KITTEN HAD A VERY SHORT TAIL"

What number has 3 tens and 8 ones? = 38 (T) · What number has 8 tens and 6 ones? = 86 (A) · What number has 1 ten and 4 ones? = 14 (R) · What number has 5 tens and 4 ones? = 54 (K) · What number has 2 tens and 4 ones? = 24 (E) · What number has 4 tens and 2 ones? = 42 (Y) · What number has 9 tens and 2 ones? = 92 (V) · What number has 7 tens and 8 ones? = 78 (D) · What number has 1 ten and 5 ones? = 15 (H) · What number has 3 tens and 3 ones? = 33 (I) · What number has 9 tens and 4 ones? = 94 (N) · What number has 7 tens and 5 ones? = 75 (S) · What number has 2 tens and 7 ones? = 27 (O) · What number has 2 tens and 3 ones? = 23 (L)

Clue 5 (Missing addends): surviving statement is box 4 → Cleo

$4 + \underline{\quad} = 6 = 2$ · $2 + \underline{\quad} = 3 = 1$ · $4 + \underline{\quad} = 15 = 11$ · $10 + \underline{\quad} = 22 = 12$ · $1 + \underline{\quad} = 4 = 3$ · $4 + \underline{\quad} = 9 = 5$ · $1 + \underline{\quad} = 9 = 8$ · $10 + \underline{\quad} = 19 = 9$ · $5 + \underline{\quad} = 12 = 7$ · $10 + \underline{\quad} = 16 = 6$ · $4 + \underline{\quad} = 14 = 10$