



The Golden Yarn Caper

Grade 4 math · Skip counting, Rounding, Addition, Subtraction, Division · Reading level grades 3-4

Detective: _____ **Date:** _____

A sneaky catburglar has stolen the precious Golden Ball of Yarn from the Whisker Museum! Chief Officer Mittens needs your help. The suspect left behind a trail of clues. We must use our math skills to catch them before they take a long catnap!

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 catburglar is _____

Possible suspects

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

NAME	POUNCE ABILITY	TOY DISTRACTION	PREFERRED PAW	FUR STYLE	FRIGHTENED BY
Crookshanks	high jump	toy mouse	left pawed	solid ginger	cardboard box
Mittens	high jump	milk splash	left pawed	tabby stripes	bath water
Duchess	silent pounce	feather wand	right pawed	tabby stripes	bath water
Hobbes	super purr	milk splash	right pawed	solid ginger	vacuum cleaner
Chloe	night vision	catnip bomb	right pawed	fluffy white	bath water
Berlioz	night vision	milk splash	right pawed	solid ginger	vacuum cleaner
Heathcliff	silent pounce	laser pointer	right pawed	tabby stripes	bath water
Salem	high jump	toy mouse	right pawed	solid ginger	bath water
Toulouse	silent pounce	toy mouse	left pawed	solid ginger	bath water
Garfield	night vision	laser pointer	right pawed	tabby stripes	bath water
Simba	silent pounce	catnip bomb	right pawed	tabby stripes	bath water
Sylvester	super purr	catnip bomb	left pawed	tabby stripes	cardboard box
Felix	mega scratch	milk splash	right pawed	solid ginger	cardboard box
Nala	high jump	laser pointer	left pawed	tabby stripes	bath water
Figaro	night vision	milk splash	right pawed	tabby stripes	vacuum cleaner
Snowball	mega scratch	feather wand	right pawed	tabby stripes	cardboard box
Marie	high jump	milk splash	right pawed	solid ginger	bath water
Boots	night vision	catnip bomb	left pawed	fluffy white	cardboard box
Socks	silent pounce	toy mouse	right pawed	solid ginger	vacuum cleaner
Pusheen	night vision	toy mouse	right pawed	tabby stripes	bath water
Oliver	silent pounce	laser pointer	left pawed	tabby stripes	cardboard box

CLUE 1

We found paw prints on the museum floor. They are evenly spaced. Let's skip count the paw prints to find where they lead.

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

55 20 10 42 22 42 140 10 15 55 80 28 10 42 9 28 55

22 42 10 70 130 10 70 55 20 10 6 40 70 9 80

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

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

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

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

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

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

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

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 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, __, 30, 32 → ☐

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

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

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

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

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

Scratch space:

CLUE 2 Rounding

The museum security radar shows how far away the suspect is. The radar screen only shows numbers rounded to the nearest ten.

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

T 2000	2900	1100	3000	2900	1100	9000	1300	T 2000	2900	1100	130	20	9000	1300	1100	170		
3000	110	30	170	2300	170	T 2000	2900	1100	2300	30	30	2300	130	2900	T 2000	3700	110	290

Round 1,712 to the nearest thousand →

A

Round 167 to the nearest ten →

N

Round 9,486 to the nearest thousand →

L

Round 1,132 to the nearest hundred →

E

Round 113 to the nearest ten →

A

Round 2,992 to the nearest thousand →

Y

Round 2,325 to the nearest hundred →

I

Round 2,928 to the nearest hundred →

H

Round 3,729 to the nearest hundred →

P

Round 287 to the nearest ten →

W

Round 1,303 to the nearest hundred →

D

Round 34 to the nearest ten →

R

Round 131 to the nearest ten →

G

Round 22 to the nearest ten →

O

Scratch space:

CLUE 3 Addition

We need to count all the shiny toy mice left in the play room. Let's add them up to find the total.

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

T 8787	6795	7843	2171	4069	2437	6568	2437	8027	2437	2171	8027	6795	7843	6568	T 8787	6795	7843
6128	2437	T 8787	6795	8027	2437	T 8787	7843	4069	5282	4942	6236	2437	5282	6795	7843	4976	

$6014 + 2773 = \square \rightarrow \text{T}$	$3392 + 1890 = \square \rightarrow \text{S}$	$2873 + 4970 = \square \rightarrow \text{E}$
$2702 + 2274 = \square \rightarrow \text{D}$	$3379 + 3189 = \square \rightarrow \text{N}$	$2473 + 4322 = \square \rightarrow \text{H}$
$2290 + 3946 = \square \rightarrow \text{L}$	$2949 + 3179 = \square \rightarrow \text{B}$	$2225 + 1844 = \square \rightarrow \text{R}$
$4775 + 3252 = \square \rightarrow \text{W}$	$1247 + 1190 = \square \rightarrow \text{A}$	$735 + 1436 = \square \rightarrow \text{Y}$
$2715 + 2227 = \square \rightarrow \text{P}$		

Scratch space:

CLUE 4
Subtraction

The suspect dropped some stolen catnip treats along the way. Subtract the treats we found from the total to see how many they have left.

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

W																		
3095	1726	8829	5558	1335	4394	3185	4695	6759	3725	7904	1658	1726	3185	8829	1335	3725	5558	4394

6759	7370	1726	3402	5558	3065	3185	1726	4394	2739	4222	3725	4394

$7070 - 3975 = \square \rightarrow \boxed{\text{W}}$

$7692 - 322 = \square \rightarrow \boxed{\text{H}}$

$5334 - 3676 = \square \rightarrow \boxed{\text{P}}$

$7604 - 3879 = \square \rightarrow \boxed{\text{R}}$

$7536 - 1978 = \square \rightarrow \boxed{\text{O}}$

$8809 - 4587 = \square \rightarrow \boxed{\text{A}}$

$9086 - 1182 = \square \rightarrow \boxed{\text{I}}$

$4095 - 693 = \square \rightarrow \boxed{\text{G}}$

$10373 - 1544 = \square \rightarrow \boxed{\text{F}}$

$7829 - 3134 = \square \rightarrow \boxed{\text{S}}$

$7846 - 3452 = \square \rightarrow \boxed{\text{N}}$

$7819 - 4634 = \square \rightarrow \boxed{\text{D}}$

$4724 - 1985 = \square \rightarrow \boxed{\text{Y}}$

$5275 - 3940 = \square \rightarrow \boxed{\text{U}}$

$11586 - 4827 = \square \rightarrow \boxed{\text{T}}$

$7527 - 4462 = \square \rightarrow \boxed{\text{L}}$

$5395 - 3669 = \square \rightarrow \boxed{\text{E}}$

Scratch space:

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

We found a pile of fish biscuits. If we share them equally among our detective kittens, we can figure out the final clue.

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:

$20 \div 5 = \boxed{}$

$32 \div 4 = \boxed{}$

$132 \div 12 = \boxed{}$

$54 \div 6 = \boxed{}$

$108 \div 9 = \boxed{}$

$12 \div 2 = \boxed{}$

$55 \div 11 = \boxed{}$

$12 \div 4 = \boxed{}$

$20 \div 2 = \boxed{}$

$22 \div 11 = \boxed{}$

$70 \div 10 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain sneaks past the sleeping guard dog, then makes everyone too sleepy to give chase.
2. The villain switches off the gallery lights, then tickles the security guards.
3. The villain activates a high pitch frequency, then rolls a noisy toy across the floor.
4. The villain switches off the gallery lights, then distracts the museum guards with a red dot.
5. The villain activates a high pitch frequency, then creates a slippery puddle on the rug.
6. The villain tears down the display curtain, then makes everyone too sleepy to give chase.
7. The villain leaps over the security gate, then tickles the security guards.
8. The villain sneaks past the sleeping guard dog, then distracts the museum guards with a red dot.
9. The villain tears down the display curtain, then tickles the security guards.
10. The villain leaps over the security gate, then distracts the museum guards with a red dot.
11. The villain switches off the gallery lights, then rolls a noisy toy across the floor.
12. The villain tears down the display curtain, then distracts the museum guards with a red dot.

Answer Key

The Golden Yarn Caper

Culprit: Simba

silent pounce · catnip bomb · right pawed · tabby stripes · bath water

Trail: Start 21 → Clue 1 19 → Clue 2 12 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Skip counting): "THE SUSPECT DOES NOT USE A FEATHER WAND"

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

Clue 2 (Rounding): "THEY HELD THE GOLDEN YARN IN THEIR RIGHT PAW"

Round 1,712 to the nearest thousand = 2000 (T) · Round 167 to the nearest ten = 170 (N) · Round 9,486 to the nearest thousand = 9000 (L) · Round 1,132 to the nearest hundred = 1100 (E) · Round 113 to the nearest ten = 110 (A) · Round 2,992 to the nearest thousand = 3000 (Y) · Round 2,325 to the nearest hundred = 2300 (I) · Round 2,928 to the nearest hundred = 2900 (H) · Round 3,729 to the nearest hundred = 3700 (P) · Round 287 to the nearest ten = 290 (W) · Round 1,303 to the nearest hundred = 1300 (D) · Round 34 to the nearest ten = 30 (R) · Round 131 to the nearest ten = 130 (G) · Round 22 to the nearest ten = 20 (O)

Clue 3 (Addition): "THEY RAN AWAY WHEN THE BATH WATER SPLASHED"

6014 + 2773 = 8787 (T) · 3392 + 1890 = 5282 (S) · 2873 + 4970 = 7843 (E) · 2702 + 2274 = 4976 (D) · 3379 + 3189 = 6568 (N) · 2473 + 4322 = 6795 (H) · 2290 + 3946 = 6236 (L) · 2949 + 3179 = 6128 (B) · 2225 + 1844 = 4069 (R) · 4775 + 3252 = 8027 (W) · 1247 + 1190 = 2437 (A) · 735 + 1436 = 2171 (Y) · 2715 + 2227 = 4942 (P)

Clue 4 (Subtraction): "WE FOUND STRIPED FUR ON THE GOLDEN YARN"

7070 - 3975 = 3095 (W) · 7692 - 322 = 7370 (H) · 5334 - 3676 = 1658 (P) · 7604 - 3879 = 3725 (R) · 7536 - 1978 = 5558 (O) · 8809 - 4587 = 4222 (A) · 9086 - 1182 = 7904 (I) · 4095 - 693 = 3402 (G) · 10373 - 1544 = 8829 (F) · 7829 - 3134 = 4695 (S) · 7846 - 3452 = 4394 (N) · 7819 - 4634 = 3185 (D) · 4724 - 1985 = 2739 (Y) · 5275 - 3940 = 1335 (U) · 11586 - 4827 = 6759 (T) · 7527 - 4462 = 3065 (L) · 5395 - 3669 = 1726 (E)

Clue 5 (Division facts (1-12)): surviving statement is box 1 → Simba

20 ÷ 5 = 4 · 32 ÷ 4 = 8 · 132 ÷ 12 = 11 · 54 ÷ 6 = 9 · 108 ÷ 9 = 12 · 12 ÷ 2 = 6 · 55 ÷ 11 = 5 · 12 ÷ 4 = 3 · 20 ÷ 2 = 10 · 22 ÷ 11 = 2 · 70 ÷ 10 = 7