



The Case of the Missing Golden Mouse

Grade 6 math · Place value, Multiplication, Skip counting, Multi-step word problems, Division · Reading level grades 5-6

Detective: _____ Date: _____

Someone sneaked into Whisker Haven during naptime and snatched the Golden Mouse trophy! Use your detective skills to clear the innocent kitties and catch the sneaky cat burglar.

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 cat burglar is _____

Possible suspects

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

NAME	BEST SKILL	FAVORITE TOY	PAW PREFERENCE	FUR PATTERN	FEAR FACTOR
Jasper	Night Vision	Catnip Mouse	Right Paws First	Tuxedo Black	Loud Thunder
Ginger	Night Vision	Laser Pointer	Right Paws First	Tuxedo Black	Vacuum Cleaner
Barnaby	Tree Climbing	Catnip Mouse	Right Paws First	Calico Patch	Water Spray
Whiskers	High Jumping	Feather Wand	Right Paws First	Calico Patch	Loud Thunder
Oreo	Tree Climbing	Feather Wand	Right Paws First	Orange Tabby	Loud Thunder
Mittens	Silent Paws	Catnip Mouse	Right Paws First	Tuxedo Black	Vacuum Cleaner
Oliver	Tree Climbing	Laser Pointer	Right Paws First	Tuxedo Black	Vacuum Cleaner
Felix	High Jumping	Laser Pointer	Right Paws First	Calico Patch	Water Spray
Duchess	Tree Climbing	Yarn Ball	Left Paws First	Orange Tabby	Water Spray
Simba	Super Sniffing	Catnip Mouse	Right Paws First	Tuxedo Black	Vacuum Cleaner
Luna	Silent Paws	Yarn Ball	Right Paws First	Tuxedo Black	Vacuum Cleaner
Smokey	Night Vision	Laser Pointer	Right Paws First	Tuxedo Black	Loud Thunder
Shadow	Silent Paws	Catnip Mouse	Right Paws First	Calico Patch	Loud Thunder
Peanut	Super Sniffing	Yarn Ball	Left Paws First	Tuxedo Black	Water Spray
Pumpkin	High Jumping	Crinkle Ball	Left Paws First	Calico Patch	Loud Thunder
Pepper	Silent Paws	Crinkle Ball	Right Paws First	Orange Tabby	Loud Thunder
Bandit	Night Vision	Crinkle Ball	Left Paws First	Tuxedo Black	Vacuum Cleaner
Cleo	Tree Climbing	Crinkle Ball	Left Paws First	Tuxedo Black	Vacuum Cleaner
Hazel	Super Sniffing	Yarn Ball	Right Paws First	Calico Patch	Vacuum Cleaner
Ziggy	Tree Climbing	Laser Pointer	Left Paws First	Orange Tabby	Vacuum Cleaner
Milo	Silent Paws	Laser Pointer	Right Paws First	Calico Patch	Vacuum Cleaner

CLUE 1 Place value

Inspecting the digital vault lock, the digital display shows the number in the tens place to unlock clue one.

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

T																T
3000	9000	300	700	100	50	50	90	100	4000	20	900	300	200	4000	900	3000

						T		T								
70	50	90	800	30	100	3000	9000	3000	9000	300	800	90	10	4000	400	90

What is the value of the 3 in 283,788? →

T

What is the value of the 1 in 342,810? →

R

What is the value of the 5 in 48,350? →

L

What is the value of the 4 in 52,408? →

B

What is the value of the 9 in 302,092? →

A

What is the value of the 2 in 993,205? →

S

What is the value of the 1 in 786,182? →

I

What is the value of the 9 in 619,135? →

H

What is the value of the 8 in 259,824? →

Y

What is the value of the 4 in 24,359? →

N

What is the value of the 3 in 81,635? →

W

What is the value of the 3 in 824,387? →

E

What is the value of the 9 in 880,984? →

O

What is the value of the 7 in 90,712? →

V

What is the value of the 2 in 34,426? →

D

What is the value of the 7 in 138,170? →

P

Scratch space:

CLUE 2
Multiplication facts (1-12)

The detective counts equal stacks of cat food cans neatly lined up in rows across the pantry floor.

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

W									W							
27	12	54	50	36	56	56	56	20	27	55	12	108	108	20	12	50

				W										W	
56	54	36	45	27	12	54	24	120	12	22	24	54	45	20	27

84	12	120	56	54

$3 \times 9 = \square \rightarrow$ W	$12 \times 7 = \square \rightarrow$ F	$11 \times 2 = \square \rightarrow$ G	
$12 \times 9 = \square \rightarrow$ L	$5 \times 9 = \square \rightarrow$ P	$9 \times 6 = \square \rightarrow$ T	
$10 \times 5 = \square \rightarrow$ N	$5 \times 11 = \square \rightarrow$ V	$12 \times 10 = \square \rightarrow$ R	
$3 \times 8 = \square \rightarrow$ H	$4 \times 5 = \square \rightarrow$ A	$8 \times 7 = \square \rightarrow$ S	$1 \times 12 = \square \rightarrow$ I
$3 \times 12 = \square \rightarrow$ E			

Scratch space:

CLUE 3 Skip counting

Pawprints stretch down the long hallway, spaced out at regular intervals step after step.

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

A										A										
70	25	45	110	140	140	110	55	50	90	70	80	8	8	15						
		A										A								
28	80	70	140	35	36	65	45	35	90	110	40	40	70	110	55	A		A		27

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Scratch space:

CLUE 4

Multi-step word problems

Inspecting the shelter logbook requires calculating total supply deliveries and daily usage.

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

A strand of T L A C K hair turned up at the scene.

54 9 14 58 15 47 81

Shelter Volunteer earned 2 cat treats in each of 6 rounds, plus 51 bonus cat treats. Then 9 cat treats were lost. How many cat treats are left?

Answer: → T

There were 74 feather toys in all. 4 Rescue Crew used 8 feather toys each. The other 3 Rescue Crew shared the rest equally. How many feather toys did each of the other Rescue Crew get?

Answer: → X

Shelter Volunteer collected 70 cozy beds in the morning and 5 cozy beds in the afternoon, then split them equally among 5 Rescue Crew. How many cozy beds did each get?

Answer: → D

Shelter Volunteer collected 323 tuna cans in the morning and 1 tuna cans in the afternoon, then split them equally among 4 Rescue Crew. How many tuna cans did each get?

Answer: → B

Shelter Volunteer collected 8 feather toys in the morning and 19 feather toys in the afternoon, then split them equally among 3 Rescue Crew. How many feather toys did each get?

Answer: → U

Shelter Volunteer earned 4 cat treats in each of 4 rounds, plus 53 bonus cat treats. Then 11 cat treats were lost. How many cat treats are left?

Answer: → E

Shelter Volunteer filled 3 boxes with 4 tuna cans each, then found 35 more tuna cans. How many tuna cans are there in all?

Answer: → O

Scratch space:

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

Dividing the treat jar contents evenly among the playroom rescue cats reveals 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:

$12 \div 12 = \square$

$16 \div 8 = \square$

$6 \div 2 = \square$

$36 \div 6 = \square$

$40 \div 4 = \square$

$96 \div 12 = \square$

$24 \div 2 = \square$

$44 \div 11 = \square$

$35 \div 7 = \square$

$49 \div 7 = \square$

$72 \div 8 = \square$

Step 2 - cross out the sentence with each answer:

1. The villain scaled the tall scratching post, then chased the laser pointer.
2. The villain tracked the scent across the room, then swiped the catnip mouse.
3. The villain prowled through the dark hallway, then chased the laser pointer.
4. The villain prowled through the dark hallway, then knocked over the yarn ball.
5. The villain scaled the tall scratching post, then snagged the feather wand.
6. The villain scaled the tall scratching post, then swiped the catnip mouse.
7. The villain tracked the scent across the room, then grabbed the crinkle ball.
8. The villain crept past the sleeping guards, then chased the laser pointer.
9. The villain prowled through the dark hallway, then swiped the catnip mouse.
10. The villain jumped onto the highest shelf, then snagged the feather wand.
11. The villain crept past the sleeping guards, then swiped the catnip mouse.
12. The villain tracked the scent across the room, then chased the laser pointer.

Answer Key

The Case of the Missing Golden Mouse

Culprit: Mittens

Silent Paws · Catnip Mouse · Right Paws First · Tuxedo Black · Vacuum Cleaner

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

Clue 1 (Place value): "THE VILLAIN DOES NOT PLAY WITH THE YARN BALL"

What is the value of the 3 in 283,788? = 3000 (T) · What is the value of the 1 in 342,810? = 10 (R) · What is the value of the 5 in 48,350? = 50 (L) · What is the value of the 4 in 52,408? = 400 (B) · What is the value of the 9 in 302,092? = 90 (A) · What is the value of the 2 in 993,205? = 200 (S) · What is the value of the 1 in 786,182? = 100 (I) · What is the value of the 9 in 619,135? = 9000 (H) · What is the value of the 8 in 259,824? = 800 (Y) · What is the value of the 4 in 24,359? = 4000 (N) · What is the value of the 3 in 81,635? = 30 (W) · What is the value of the 3 in 824,387? = 300 (E) · What is the value of the 9 in 880,984? = 900 (O) · What is the value of the 7 in 90,712? = 700 (V) · What is the value of the 2 in 34,426? = 20 (D) · What is the value of the 7 in 138,170? = 70 (P)

Clue 2 (Multiplication facts (1-12)): "WITNESS SAW VILLAIN STEP WITH RIGHT PAW FIRST"

$3 \times 9 = 27$ (W) · $12 \times 7 = 84$ (F) · $11 \times 2 = 22$ (G) · $12 \times 9 = 108$ (L) · $5 \times 9 = 45$ (P) · $9 \times 6 = 54$ (T) · $10 \times 5 = 50$ (N) · $5 \times 11 = 55$ (V) · $12 \times 10 = 120$ (R) · $3 \times 8 = 24$ (H) · $4 \times 5 = 20$ (A) · $8 \times 7 = 56$ (S) · $1 \times 12 = 12$ (I) · $3 \times 12 = 36$ (E)

Clue 3 (Skip counting): "A WHIRRING VACUUM SCARED THE VILLAIN AWAY"

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

Clue 4 (Multi-step word problems): "TUXEDO BLACK"

Shelter Volunteer earned 2 cat treats in each of 6 rounds, plus 51 bonus cat treats. Then 9 cat treats were lost. How many cat treats are left? = 54 (T) · There were 74 feather toys in all. 4 Rescue Crew used 8 feather toys each. The other 3 Rescue Crew shared the rest equally. How many feather toys did each of the other Rescue Crew get? = 14 (X) · Shelter Volunteer collected 70 cozy beds in the morning and 5 cozy beds in the afternoon, then split them equally among 5 Rescue Crew. How many cozy beds did each get? = 15 (D) · Shelter Volunteer collected 323 tuna cans in the morning and 1 tuna cans in the afternoon, then split them equally among 4 Rescue Crew. How many tuna cans did each get? = 81 (B) · Shelter Volunteer collected 8 feather toys in the morning and 19 feather toys in the afternoon, then split them equally among 3 Rescue Crew. How many feather toys did each get? = 9 (U) · Shelter Volunteer earned 4 cat treats in each of 4 rounds, plus 53 bonus cat treats. Then 11 cat treats were lost. How many cat treats are left? = 58 (E) · Shelter Volunteer filled 3 boxes with 4 tuna cans each, then found 35 more tuna cans. How many tuna cans are there in all? = 47 (O)

Clue 5 (Division facts (1-12)): surviving statement is box 11 → Mittens

$12 \div 12 = 1$ · $16 \div 8 = 2$ · $6 \div 2 = 3$ · $36 \div 6 = 6$ · $40 \div 4 = 10$ · $96 \div 12 = 8$ · $24 \div 2 = 12$ · $44 \div 11 = 4$ · $35 \div 7 = 5$ · $49 \div 7 = 7$ · $72 \div 8 = 9$