The Case of the Missing Golden Bone

Grade 4 math · Place value, Skip counting, Multiplication, Rounding, Division · Reading level grades 3-4

Detective: _____ **Date:** _____

Someone snuck into Barkington Pet Park and stole the coveted Golden Bone trophy just before the annual agility show! It is up to you to follow the paw prints, analyze the treats, and crack the code to find out which crafty canine is responsible.

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 Snatcher is _____

Possible suspects

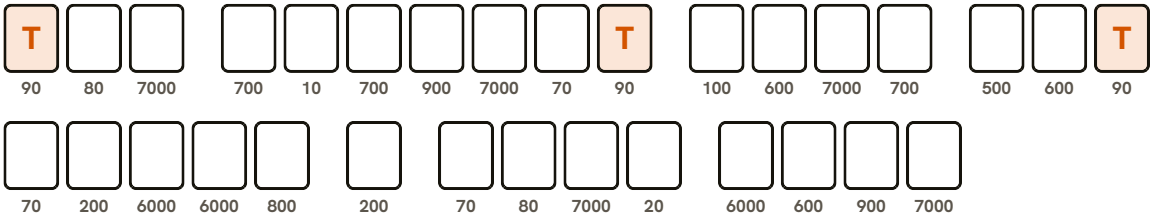
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	SPECIAL SKILL	FAVORITE TOY	PAW STANCE	FUR COLOR	TREAT CHOICE
Nova Nippers	Quiet Sneak	Plush Duck	Right Pawed	Golden Fur	Crunchy Biscuit
Ivy Itch	Quiet Sneak	Rubber Bone	Right Pawed	Black Fur	Crunchy Biscuit
Uno Unbound	Deep Dig	Squeaky Ball	Left Pawed	Golden Fur	Crunchy Biscuit
Ziggy Zoom	High Jump	Flying Disc	Right Pawed	Black Fur	Peanut Butter
Scout Sniff	Deep Dig	Plush Duck	Left Pawed	Golden Fur	Crunchy Biscuit
Rex Retriever	Loud Bark	Plush Duck	Left Pawed	Black Fur	Peanut Butter
Ginger Growl	Fast Dash	Plush Duck	Right Pawed	Black Fur	Crunchy Biscuit
Daisy Digs	Quiet Sneak	Squeaky Ball	Right Pawed	Black Fur	Peanut Butter
Penny Paws	High Jump	Squeaky Ball	Right Pawed	Spotted Fur	Peanut Butter
Hank Howl	High Jump	Squeaky Ball	Right Pawed	Spotted Fur	Cheese Cube
Lola Leash	High Jump	Chew Rope	Right Pawed	Black Fur	Peanut Butter
Felix Fetch	Deep Dig	Squeaky Ball	Right Pawed	Golden Fur	Cheese Cube
Kona Kennel	Deep Dig	Plush Duck	Right Pawed	Golden Fur	Peanut Butter
Milo Muzzle	Quiet Sneak	Plush Duck	Right Pawed	Spotted Fur	Crunchy Biscuit
Toby Tail	Quiet Sneak	Plush Duck	Left Pawed	Golden Fur	Crunchy Biscuit
Duke Dasher	Loud Bark	Flying Disc	Right Pawed	Black Fur	Peanut Butter
Bella Bow	Deep Dig	Squeaky Ball	Left Pawed	Golden Fur	Cheese Cube
Buster Bark	Quiet Sneak	Rubber Bone	Left Pawed	Black Fur	Crunchy Biscuit
Ollie Outdoor	Loud Bark	Squeaky Ball	Right Pawed	Black Fur	Peanut Butter
Yeller Yap	Loud Bark	Squeaky Ball	Right Pawed	Spotted Fur	Crunchy Biscuit
Charlie Chew	High Jump	Chew Rope	Right Pawed	Golden Fur	Crunchy Biscuit

CLUE 1 Place value

Check the digital ID digits on the dog collar scanner to unlock the first clue.

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



What is the value of the 9 in 4,696? ☐ → T

What is the value of the 5 in 4,500? ☐ → N

What is the value of the 7 in 7,609? ☐ → E

What is the value of the 6 in 644? ☐ → O

What is the value of the 8 in 813? ☐ → Y

What is the value of the 2 in 6,620? ☐ → W

What is the value of the 7 in 1,751? ☐ → S

What is the value of the 2 in 269? ☐ → A

What is the value of the 6 in 36,119? ☐ → R

What is the value of the 9 in 921? ☐ → P

What is the value of the 8 in 386? ☐ → H

What is the value of the 1 in 2,413? ☐ → U

What is the value of the 7 in 2,070? ☐ → C

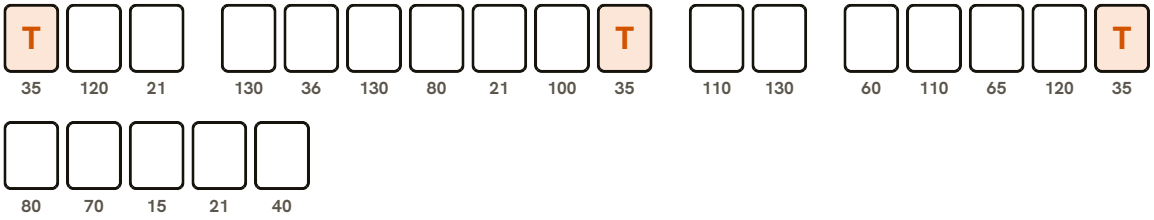
What is the value of the 1 in 6,103? ☐ → D

Scratch space:

CLUE 2 Skip counting

Count by groups along the paw print path to reveal the next piece of evidence.

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, ___, 40, 45 ☐ → T

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, ___, 90, 100 ☐ → P

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, ___, 110, 120 ☐ → C

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

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

Skip-count by 5s. Fill the blank: 5, 10, ___, 20, 25 ☐ → W

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

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, ___, 45, 50 ☐ → D

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 ☐ → G

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

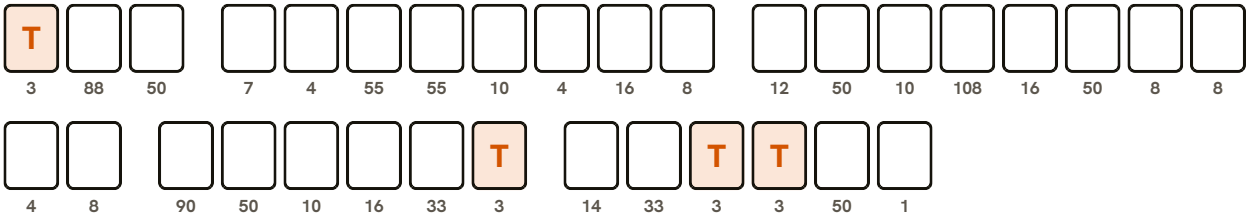
Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, ___, 70, 80 ☐ → R

Scratch space:

CLUE 3 Multiplication facts (1-12)

Multiply the treats stored in equal doggie bags to uncover a secret code.

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



1 × 3 = ☐ → T	12 × 9 = ☐ → K	7 × 1 = ☐ → V	3 × 4 = ☐ → W
2 × 8 = ☐ → N	10 × 1 = ☐ → A	5 × 10 = ☐ → E	
5 × 11 = ☐ → L	11 × 3 = ☐ → U	1 × 1 = ☐ → R	
1 × 4 = ☐ → I	10 × 9 = ☐ → P	4 × 2 = ☐ → S	
11 × 8 = ☐ → H	7 × 2 = ☐ → B		

Scratch space:

CLUE 4 Rounding

The electronic dog gate screen rounds the total park visitors to give a hint.

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

T																			
1700	430	3700	230	700	3700	3000	3700	430	7000	110	50	900	7000	700	130	9000	20	1300	

Round 1,742 to the nearest hundred ☐ → T

Round 426 to the nearest ten ☐ → H

Round 23 to the nearest ten ☐ → U

Round 3,088 to the nearest thousand ☐ → N

Round 46 to the nearest ten ☐ → B

Round 8,908 to the nearest thousand ☐ → F

Round 1,259 to the nearest hundred ☐ → R

Round 878 to the nearest hundred ☐ → L

Round 742 to the nearest hundred ☐ → C

Round 6,778 to the nearest thousand ☐ → A

Round 107 to the nearest ten ☐ → D

Round 3,665 to the nearest hundred ☐ → E

Round 229 to the nearest ten ☐ → S

Round 130 to the nearest ten ☐ → K

Scratch space:

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

Divide the dog biscuits equally into bowls to solve the final puzzle.

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:

70 ÷ 7 = ☐	12 ÷ 3 = ☐	24 ÷ 4 = ☐	88 ÷ 11 = ☐	120 ÷ 10 = ☐
24 ÷ 8 = ☐	44 ÷ 4 = ☐	20 ÷ 4 = ☐	22 ÷ 11 = ☐	36 ÷ 4 = ☐
7 ÷ 7 = ☐				

Step 2 - cross out the sentence with each answer:

1. The villain dug under the flower bed, then took the plush duck.
2. The villain dashed across the agility lawn, then grabbed the squeaky ball.
3. The villain dashed across the agility lawn, then took the plush duck.
4. The villain sneaked through the side tunnel, then grabbed the squeaky ball.
5. The villain sneaked through the side tunnel, then snatched the rubber bone.
6. The villain barked loudly at the guard gate, then grabbed the squeaky ball.
7. The villain barked loudly at the guard gate, then stole the flying disc.
8. The villain barked loudly at the guard gate, then took the plush duck.
9. The villain dug under the flower bed, then swiped the chew rope.
10. The villain jumped over the high fence, then stole the flying disc.
11. The villain sneaked through the side tunnel, then took the plush duck.
12. The villain dug under the flower bed, then grabbed the squeaky ball.

TEACHER / PARENT

Answer Key

The Case of the Missing Golden Bone

Culprit: Duke Dasher

Loud Bark · Flying Disc · Right Pawed · Black Fur · Peanut Butter

Trail: Start 21 → Clue 1 19 → Clue 2 13 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE SUSPECT DOES NOT CARRY A CHEW ROPE"

What is the value of the 9 in 4,696? = 90 (T) · What is the value of the 5 in 4,500? = 500 (N) · What is the value of the 7 in 7,609? = 7000 (E) · What is the value of the 6 in 644? = 600 (O) · What is the value of the 8 in 813? = 800 (Y) · What is the value of the 2 in 6,620? = 20 (W) · What is the value of the 7 in 1,751? = 700 (S) · What is the value of the 2 in 269? = 200 (A) · What is the value of the 6 in 36,119? = 6000 (R) · What is the value of the 9 in 921? = 900 (P) · What is the value of the 8 in 386? = 80 (H) · What is the value of the 1 in 2,413? = 10 (U) · What is the value of the 7 in 2,070? = 70 (C) · What is the value of the 1 in 6,103? = 100 (D)

Clue 2 (Skip counting): "THE SUSPECT IS RIGHT PAWED"

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, ___, 40, 45 = 35 (T) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, ___, 90, 100 = 80 (P) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, ___, 110, 120 = 100 (C) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, ___, 140, 150 = 130 (S) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, ___, 24, 27 = 21 (E) · Skip-count by 5s. Fill the blank: 5, 10, ___, 20, 25 = 15 (W) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, ___, 120, 130 = 110 (I) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, ___, 130, 140 = 120 (H) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, ___, 45, 50 = 40 (D) · 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 (G) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, ___, 39, 42 = 36 (U) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, ___, 70, 80 = 60 (R)

Clue 3 (Multiplication facts (1-12)): "THE VILLAINS WEAKNESS IS PEANUT BUTTER"

1 × 3 = 3 (T) · 12 × 9 = 108 (K) · 7 × 1 = 7 (V) · 3 × 4 = 12 (W) · 2 × 8 = 16 (N) · 10 × 1 = 10 (A) · 5 × 10 = 50 (E) · 5 × 11 = 55 (L) · 11 × 3 = 33 (U) · 1 × 1 = 1 (R) · 1 × 4 = 4 (I) · 10 × 9 = 90 (P) · 4 × 2 = 8 (S) · 11 × 8 = 88 (H) · 7 × 2 = 14 (B)

Clue 4 (Rounding): "THE SCENE HAD BLACK FUR"

Round 1,742 to the nearest hundred = 1700 (T) · Round 426 to the nearest ten = 430 (H) · Round 23 to the nearest ten = 20 (U) · Round 3,088 to the nearest thousand = 3000 (N) · Round 46 to the nearest ten = 50 (B) · Round 8,908 to the nearest thousand = 9000 (F) · Round 1,259 to the nearest hundred = 1300 (R) · Round 878 to the nearest hundred = 900 (L) · Round 742 to the nearest hundred = 700 (C) · Round 6,778 to the nearest thousand = 7000 (A) · Round 107 to the nearest ten = 110 (D) · Round 3,665 to the nearest hundred = 3700 (E) · Round 229 to the nearest ten = 230 (S) · Round 130 to the nearest ten = 130 (K)

Clue 5 (Division facts (1-12)): surviving statement is box 7 → Duke Dasher

70 ÷ 7 = 10 · 12 ÷ 3 = 4 · 24 ÷ 4 = 6 · 88 ÷ 11 = 8 · 120 ÷ 10 = 12 · 24 ÷ 8 = 3 · 44 ÷ 4 = 11 · 20 ÷ 4 = 5 · 22 ÷ 11 = 2 · 36 ÷ 4 = 9 · 7 ÷ 7 = 1