



The Great Barkington Trophy Mystery

Grade 4 math · Multiplication, Multi-step word problems, Rounding, Addition, Division · Reading level grades 3-4

Detective: _____ Date: _____

Someone has swiped the Golden Bone Trophy right before the big show! Detective, we must find the pup who did it. Check the clues and solve the case!

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 troublemaker pup is _____

Possible suspects

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

NAME	AGILITY TRICK	SUPER BARK	DOMINANT PAW	FUR TYPE	SQUEAKY TOY WEAKNESS
Lassie	high jump	wake up the neighborhood cats	left-pawed digger	fluffy curly coat	squeaky rubber duck
Daisy	hoop leap	shatter glass with a howl	right-pawed digger	fluffy curly coat	squeaky tennis ball
Fido	tunnel sprint	scare away squirrels	left-pawed digger	fluffy curly coat	squeaky plush hedgehog
Buddy	tunnel sprint	wake up the neighborhood cats	right-pawed digger	sleek short fur	squeaky tennis ball
Snoopy	weave pole slalom	shatter glass with a howl	right-pawed digger	shaggy wire hair	squeaky rubber duck
Perdita	hoop leap	shatter glass with a howl	left-pawed digger	shaggy wire hair	squeaky plush hedgehog
Tramp	weave pole slalom	shatter glass with a howl	left-pawed digger	shaggy wire hair	squeaky plush hedgehog
Marley	hoop leap	wake up the neighborhood cats	left-pawed digger	sleek short fur	squeaky plush hedgehog
Otis	high jump	wake up the neighborhood cats	right-pawed digger	fluffy curly coat	squeaky plush hedgehog
Rambo	weave pole slalom	make the crowd plug their ears	right-pawed digger	shaggy wire hair	squeaky tennis ball
Rex	balance beam walk	make the crowd plug their ears	left-pawed digger	sleek short fur	squeaky rubber duck
Lady	high jump	make the crowd plug their ears	left-pawed digger	fluffy curly coat	squeaky plush hedgehog
Beethoven	high jump	wake up the neighborhood cats	right-pawed digger	fluffy curly coat	squeaky rubber duck
Slinky	weave pole slalom	shake the whole fence	left-pawed digger	fluffy curly coat	squeaky plush hedgehog
Pongo	hoop leap	wake up the neighborhood cats	right-pawed digger	shaggy wire hair	squeaky tennis ball
Bingo	hoop leap	scare away squirrels	left-pawed digger	fluffy curly coat	squeaky plush hedgehog
Balto	hoop leap	wake up the neighborhood cats	left-pawed digger	fluffy curly coat	squeaky plush hedgehog
Clifford	tunnel sprint	shake the whole fence	right-pawed digger	shaggy wire hair	squeaky tennis ball
Toto	hoop leap	shatter glass with a howl	right-pawed digger	fluffy curly coat	squeaky plush hedgehog
Scooby	hoop leap	wake up the neighborhood cats	right-pawed digger	sleek short fur	squeaky plush hedgehog
Max	balance beam walk	shake the whole fence	right-pawed digger	shaggy wire hair	squeaky rubber duck

CLUE 1
Multiplication facts (1-12)

The security camera caught the thief jumping over the snack bar crates. To find how many snacks were there, we must multiply the rows of boxes.

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

T																T	
2	21	50	30	42	22	22	20	42	144	90	15	50	88	144	15	2	
					T												
88	21	20	84	50	2	21	50	5	21	15	22	50	28	50	144	49	50

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

Scratch space:

CLUE 2

Multi-step word problems

The messy pup knocked over some agility hurdles and tore up several blankets. Let us calculate the remaining clean gear by subtracting the ruined items from the freshly washed piles.

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

A witness saw the villain was

.

84 40 55 53 13 62 89 40 40

There were 212 grooming brushes in all. 4 Barkington Athletic Club used 11 grooming brushes each. The other 2 Barkington Athletic Club shared the rest equally. How many grooming brushes did each of the other Barkington Athletic Club get?

Answer: →

The dog trainer collected 169 grooming brushes in the morning and 276 grooming brushes in the afternoon, then split them equally among 5 Barkington Athletic Club. How many grooming brushes did each get?

Answer: →

There were 324 grooming brushes in all. 2 Barkington Athletic Club used 7 grooming brushes each. The other 5 Barkington Athletic Club shared the rest equally. How many grooming brushes did each of the other Barkington Athletic Club get?

Answer: →

There were 110 tennis balls in all. 3 Barkington Athletic Club used 28 tennis balls each. The other 2 Barkington Athletic Club shared the rest equally. How many tennis balls did each of the other Barkington Athletic Club get?

Answer: →

There were 374 tennis balls in all. 4 Barkington Athletic Club used 14 tennis balls each. The other 6 Barkington Athletic Club shared the rest equally. How many tennis balls did each of the other Barkington Athletic Club get?

Answer: →

There were 363 tennis balls in all. 3 tennis balls were set aside. The rest were shared equally among 9 Barkington Athletic Club. How many tennis balls did each get?

Answer: →

There were 569 chew bones in all. 19 chew bones were set aside. The rest were shared equally among 10 Barkington Athletic Club. How many chew bones did each get?

Answer: →

Scratch space:

CLUE 3 Rounding

The park gate sensor registered the weight of the running thief, but it only prints rounded numbers. Let us round this weight estimate to find the scale reading.

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

T										T							
290	3700	4300	1700	900	1700	2000	130	430	290	500	70	130	2000	1300	130		
90	2300	900	4300	130	2900	110	3700	4300	1300	170	4300	3700	500	170			

Round 294 to the nearest ten → **T**

Round 487 to the nearest hundred → **O**

Round 898 to the nearest hundred → **U**

Round 427 to the nearest ten → **N**

Round 2,928 to the nearest hundred → **K**

Round 2,277 to the nearest hundred → **Q**

Round 4,308 to the nearest hundred → **E**

Round 134 to the nearest ten → **A**

Round 1,715 to the nearest thousand → **R**

Round 3,670 to the nearest hundred → **H**

Round 1,332 to the nearest hundred → **D**

Round 73 to the nearest ten → **W**

Round 109 to the nearest ten → **Y**

Round 86 to the nearest ten → **S**

Round 169 to the nearest ten → **G**

Round 1,673 to the nearest hundred → **P**

Scratch space:

CLUE 4 Addition

We found paw prints leading to different yards. Let us add up all the prints from the main path and the side path to find the total distance they ran.

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

F			F	F											
2529	2882	7724	2529	2529	8804	8894	7724	4947	2882	8804	8894	6783	7457	8626	
									F						
8894	6783	7457	8626	3568	4508	8626	4419	3568	2529	3568	9525	8894	3568	8980	7457

$1677 + 852 = \square \rightarrow \text{F}$

$3019 + 1489 = \square \rightarrow \text{D}$

$4781 + 4023 = \square \rightarrow \text{Y}$

$2804 + 3979 = \square \rightarrow \text{O}$

$1357 + 2211 = \square \rightarrow \text{E}$

$6087 + 3438 = \square \rightarrow \text{N}$

$4115 + 3342 = \square \rightarrow \text{A}$

$3419 + 1528 = \square \rightarrow \text{R}$

$4359 + 4621 = \square \rightarrow \text{G}$

$4831 + 4063 = \square \rightarrow \text{C}$

$2031 + 2388 = \square \rightarrow \text{H}$

$1768 + 1114 = \square \rightarrow \text{L}$

$3942 + 3782 = \square \rightarrow \text{U}$

$1884 + 2330 = \square \rightarrow \text{P}$

$3256 + 5370 = \square \rightarrow \text{T}$

Scratch space:

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

A bag of training treats was split evenly among the park patrol dogs. We must divide the total treats to find out how many each patrol dog received.

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:

$8 \div 8 = \boxed{}$

$2 \div 1 = \boxed{}$

$42 \div 6 = \boxed{}$

$48 \div 6 = \boxed{}$

$48 \div 4 = \boxed{}$

$12 \div 2 = \boxed{}$

$9 \div 3 = \boxed{}$

$4 \div 1 = \boxed{}$

$44 \div 4 = \boxed{}$

$30 \div 3 = \boxed{}$

$55 \div 11 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain soars through the hoop leap, then scares away squirrels.
2. The villain zooms through the tunnel sprint, then scares away squirrels.
3. The villain zooms through the tunnel sprint, then shakes the whole fence.
4. The villain dashes down the weave pole slalom, then scares away squirrels.
5. The villain struts across the balance beam walk, then wakes up the neighborhood cats.
6. The villain clears the high jump, then shakes the whole fence.
7. The villain soars through the hoop leap, then wakes up the neighborhood cats.
8. The villain zooms through the tunnel sprint, then shatters glass with a howl.
9. The villain clears the high jump, then makes the crowd plug their ears.
10. The villain soars through the hoop leap, then shatters glass with a howl.
11. The villain clears the high jump, then wakes up the neighborhood cats.
12. The villain struts across the balance beam walk, then shakes the whole fence.

Answer Key

The Great Barkington Trophy Mystery

Culprit: Lady

high jump · make the crowd plug their ears · left-pawed digger · fluffy curly coat · squeaky plush hedgehog

Trail: Start 21 → Clue 1 18 → Clue 2 9 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE VILLAIN DOES NOT SHAKE THE WHOLE FENCE"

$2 \times 1 = 2$ (T) · $12 \times 7 = 84$ (K) · $7 \times 4 = 28$ (F) · $10 \times 2 = 20$ (A) · $7 \times 7 = 49$ (C) · $3 \times 5 = 15$ (O) · $9 \times 10 = 90$ (D) · $6 \times 7 = 42$ (I) · $5 \times 6 = 30$ (V) · $12 \times 12 = 144$ (N) · $1 \times 5 = 5$ (W) · $7 \times 3 = 21$ (H) · $10 \times 5 = 50$ (E) · $2 \times 11 = 22$ (L) · $11 \times 8 = 88$ (S)

Clue 2 (Multi-step word problems): "LEFT PAWED DIGGER"

There were 212 grooming brushes in all. 4 Barkington Athletic Club used 11 grooming brushes each. The other 2 Barkington Athletic Club shared the rest equally. How many grooming brushes did each of the other Barkington Athletic Club get? = 84 (L) · The dog trainer collected 169 grooming brushes in the morning and 276 grooming brushes in the afternoon, then split them equally among 5 Barkington Athletic Club. How many grooming brushes did each get? = 89 (W) · There were 324 grooming brushes in all. 2 Barkington Athletic Club used 7 grooming brushes each. The other 5 Barkington Athletic Club shared the rest equally. How many grooming brushes did each of the other Barkington Athletic Club get? = 62 (A) · There were 110 tennis balls in all. 3 Barkington Athletic Club used 28 tennis balls each. The other 2 Barkington Athletic Club shared the rest equally. How many tennis balls did each of the other Barkington Athletic Club get? = 13 (P) · There were 374 tennis balls in all. 4 Barkington Athletic Club used 14 tennis balls each. The other 6 Barkington Athletic Club shared the rest equally. How many tennis balls did each of the other Barkington Athletic Club get? = 53 (T) · There were 363 tennis balls in all. 3 tennis balls were set aside. The rest were shared equally among 9 Barkington Athletic Club. How many tennis balls did each get? = 40 (E) · There were 569 chew bones in all. 19 chew bones were set aside. The rest were shared equally among 10 Barkington Athletic Club. How many chew bones did each get? = 55 (F)

Clue 3 (Rounding): "THE PUP RAN TOWARD A SQUEAKY HEDGEHOG"

Round 294 to the nearest ten = 290 (T) · Round 487 to the nearest hundred = 500 (O) · Round 898 to the nearest hundred = 900 (U) · Round 427 to the nearest ten = 430 (N) · Round 2,928 to the nearest hundred = 2900 (K) · Round 2,277 to the nearest hundred = 2300 (Q) · Round 4,308 to the nearest hundred = 4300 (E) · Round 134 to the nearest ten = 130 (A) · Round 1,715 to the nearest thousand = 2000 (R) · Round 3,670 to the nearest hundred = 3700 (H) · Round 1,332 to the nearest hundred = 1300 (D) · Round 73 to the nearest ten = 70 (W) · Round 109 to the nearest ten = 110 (Y) · Round 86 to the nearest ten = 90 (S) · Round 169 to the nearest ten = 170 (G) · Round 1,673 to the nearest hundred = 1700 (P)

Clue 4 (Addition): "FLUFFY CURLY COAT COATED THE FENCE GAP"

$1677 + 852 = 2529$ (F) · $3019 + 1489 = 4508$ (D) · $4781 + 4023 = 8804$ (Y) · $2804 + 3979 = 6783$ (O) · $1357 + 2211 = 3568$ (E) · $6087 + 3438 = 9525$ (N) · $4115 + 3342 = 7457$ (A) · $3419 + 1528 = 4947$ (R) · $4359 + 4621 = 8980$ (G) · $4831 + 4063 = 8894$ (C) · $2031 + 2388 = 4419$ (H) · $1768 + 1114 = 2882$ (L) · $3942 + 3782 = 7724$ (U) · $1884 + 2330 = 4214$ (P) · $3256 + 5370 = 8626$ (T)

Clue 5 (Division facts (1-12)): surviving statement is box 9 → Lady

$8 \div 8 = 1$ · $2 \div 1 = 2$ · $42 \div 6 = 7$ · $48 \div 6 = 8$ · $48 \div 4 = 12$ · $12 \div 2 = 6$ · $9 \div 3 = 3$ · $4 \div 1 = 4$ · $44 \div 4 = 11$ · $30 \div 3 = 10$ · $55 \div 11 = 5$