



The Great Golden Trophy Caper

Grade 6 math · Multiplication, Multi-step word problems, Skip counting, Subtraction, Missing addends · Reading level grades 5-6

Detective: _____ Date: _____

The Golden Retriever Gala is in ruins! Someone has swiped the Golden Trophy Cup, which was filled to the brim with elite organic peanut butter biscuits. The Head Judge is devastated. We must help the canine patrol sniff out the culprit among the twenty-four golden contestants!

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 Treat Thief is _____

Possible suspects

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

NAME	SIGNATURE SKILL	FAVORITE HOBBY	DOMINANT PAW	FUR SHADE	DISTRACTION
Daisy	Mega Leaping	Sock Stealing	Left Pawed	Auburn Fur	Squeaky Ducks
Comet	Fast Fetching	Squirrel Chasing	Left Pawed	Cream Fur	Peanut Butter
Tucker	Sonic Barking	Puddle Splashing	Right Pawed	Cream Fur	Peanut Butter
Bailey	Mega Leaping	Sock Stealing	Left Pawed	Auburn Fur	Belly Rubs
Sammy	Sonic Barking	Frisbee Catching	Left Pawed	Cream Fur	Peanut Butter
Jax	Fast Fetching	Puddle Splashing	Right Pawed	Auburn Fur	Peanut Butter
Shadow	Mega Leaping	Frisbee Catching	Left Pawed	Cream Fur	Belly Rubs
Cooper	Mega Leaping	Squeaky Toy Hoarding	Right Pawed	Auburn Fur	Peanut Butter
Sadie	Mega Leaping	Squeaky Toy Hoarding	Left Pawed	Cream Fur	Peanut Butter
Maggie	Sonic Barking	Sock Stealing	Right Pawed	Auburn Fur	Squeaky Ducks
Marley	Sonic Barking	Puddle Splashing	Left Pawed	Cream Fur	Squeaky Ducks
Otis	Super Sniffing	Frisbee Catching	Left Pawed	Cream Fur	Belly Rubs
Rusty	Deep Digging	Frisbee Catching	Left Pawed	Cream Fur	Peanut Butter
Buddy	Mega Leaping	Squirrel Chasing	Left Pawed	Auburn Fur	Belly Rubs
Honey	Mega Leaping	Sock Stealing	Right Pawed	Honey Fur	Belly Rubs
Sunny	Fast Fetching	Frisbee Catching	Right Pawed	Cream Fur	Peanut Butter
Duke	Mega Leaping	Squirrel Chasing	Right Pawed	Auburn Fur	Squeaky Ducks
Buster	Mega Leaping	Squirrel Chasing	Right Pawed	Auburn Fur	Peanut Butter
Molly	Super Sniffing	Squeaky Toy Hoarding	Left Pawed	Cream Fur	Peanut Butter
Charlie	Deep Digging	Sock Stealing	Left Pawed	Auburn Fur	Peanut Butter
Rocky	Deep Digging	Puddle Splashing	Right Pawed	Honey Fur	Peanut Butter

CLUE 1

Multiplication facts (1-12)

The security team found a muddy map showing how many paces the thief took to escape. We have to calculate the total path by adding the doggy-paddle distance, subtracting the hurdles, and doubling the yard length!

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

T			T											T				
28	27	144	28	27	7	144	6	96	20	144	44	2	20	28	22	7	50	144
44	4	77	7	45	45	144	22	66	27	80	44	7	2	8				

$4 \times 7 = \square \rightarrow \boxed{\text{T}}$

$6 \times 11 = \square \rightarrow \boxed{\text{C}}$

$2 \times 11 = \square \rightarrow \boxed{\text{L}}$

$12 \times 8 = \square \rightarrow \boxed{\text{D}}$

$8 \times 1 = \square \rightarrow \boxed{\text{G}}$

$9 \times 3 = \square \rightarrow \boxed{\text{H}}$

$12 \times 12 = \square \rightarrow \boxed{\text{E}}$

$10 \times 8 = \square \rightarrow \boxed{\text{A}}$

$10 \times 2 = \square \rightarrow \boxed{\text{O}}$

$7 \times 1 = \square \rightarrow \boxed{\text{I}}$

$4 \times 1 = \square \rightarrow \boxed{\text{Q}}$

$11 \times 4 = \square \rightarrow \boxed{\text{S}}$

$10 \times 5 = \square \rightarrow \boxed{\text{K}}$

$9 \times 5 = \square \rightarrow \boxed{\text{R}}$

$2 \times 1 = \square \rightarrow \boxed{\text{N}}$

$3 \times 2 = \square \rightarrow \boxed{\text{F}}$

$7 \times 11 = \square \rightarrow \boxed{\text{U}}$

Scratch space:

CLUE 2

Multi-step word problems

To check the backyard security cameras, we need to unlock the digital padlock. The code is hidden in a grid of golden treats lined up in seven equal rows. Let's multiply the rows to get the key.

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

A witness saw the villain was

L									D
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81 67 47 85 29 30 72 67

Officer Barkley collected 103 squeaky bones in the morning and 59 squeaky bones in the afternoon, then split them equally among 2 The Golden Guard. How many squeaky bones did each get?

Answer: → **L**

Officer Barkley earned 4 grooming brushes in each of 3 rounds, plus 21 bonus grooming brushes. Then 4 grooming brushes were lost. How many grooming brushes are left?

Answer: → **P**

Officer Barkley earned 3 squeaky bones in each of 6 rounds, plus 76 bonus squeaky bones. Then 9 squeaky bones were lost. How many squeaky bones are left?

Answer: → **T**

Officer Barkley filled 9 boxes with 4 grooming brushes each, then found 31 more grooming brushes. How many grooming brushes are there in all?

Answer: → **E**

There were 507 grooming brushes in all. 37 grooming brushes were set aside. The rest were shared equally among 10 The Golden Guard. How many grooming brushes did each get?

Answer: → **F**

There were 189 tennis balls in all. 3 The Golden Guard used 15 tennis balls each. The other 2 The Golden Guard shared the rest equally. How many tennis balls did each of the other The Golden Guard get?

Answer: → **W**

Officer Barkley earned 5 dog biscuits in each of 5 rounds, plus 13 bonus dog biscuits. Then 8 dog biscuits were lost. How many dog biscuits are left?

Answer: → **A**

Scratch space:

CLUE 3 Skip counting

We found a trail of dropped tennis balls leading through the agility park. The thief dropped them in a perfect pattern of threes. If we skip count the balls, we can find where the thief went next!

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

T			T															
50	16	14	50	16	40	14	24	12	8	20	24	25	40	70	14	39	27	9
					T			T	T									
30	14	8	22	55	50	27	55	50	50	14	110							

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

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

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

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

Skip-count by 3s. Fill the blank: 3, 6, 9, __, 15, 18 → **W**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, __, 42, 45 → **D**

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

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

Skip-count by 10s. Fill the blank: 10, 20, __, 40, 50 → **P**

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

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

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

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

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

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

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

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, __, 27, 30 → **F**

Scratch space:

CLUE 4

Subtraction

A bag of premium kibble was torn open near the trophy stand. By subtracting the amount of kibble left in the sack from the weight of a full bag, we can figure out how much food the thief devoured.

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

C																	
3529	8397	6237	7278	7971	5506	4505	8397	8603	7278	6920	5506	8989	4505	1206	5651	7278	2408
2408	5227	6237	6920	C													
2408	5227	6237	6920	3529	6237	1206	6237										

$$7123 - 3594 = \square \rightarrow \boxed{\text{C}}$$

$$11897 - 3926 = \square \rightarrow \boxed{\text{M}}$$

$$10751 - 2354 = \square \rightarrow \boxed{\text{R}}$$

$$11378 - 4458 = \square \rightarrow \boxed{\text{S}}$$

$$7753 - 2247 = \square \rightarrow \boxed{\text{F}}$$

$$8086 - 3581 = \square \rightarrow \boxed{\text{U}}$$

$$8175 - 897 = \square \rightarrow \boxed{\text{A}}$$

$$6908 - 671 = \square \rightarrow \boxed{\text{E}}$$

$$13531 - 4928 = \square \rightarrow \boxed{\text{W}}$$

$$11662 - 2673 = \square \rightarrow \boxed{\text{O}}$$

$$4515 - 3309 = \square \rightarrow \boxed{\text{N}}$$

$$6765 - 4357 = \square \rightarrow \boxed{\text{T}}$$

$$7725 - 2498 = \square \rightarrow \boxed{\text{H}}$$

$$7712 - 2061 = \square \rightarrow \boxed{\text{D}}$$

Scratch space:

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

The toy chest is almost full, but a few squeaky bones are missing. If we know the total capacity of the chest and the number of toys still inside, we can find the missing amount to crack the final lock.

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:

$15 + \underline{\quad} = 23$

$13 + \underline{\quad} = 22$

$9 + \underline{\quad} = 14$

$21 + \underline{\quad} = 33$

$3 + \underline{\quad} = 14$

$12 + \underline{\quad} = 16$

$9 + \underline{\quad} = 19$

$22 + \underline{\quad} = 29$

$36 + \underline{\quad} = 39$

$31 + \underline{\quad} = 37$

$19 + \underline{\quad} = 21$

Step 2 - cross out the sentence with each answer:

1. The villain shattered the display case glass with a bark, then snatched a stray flying disc.
2. The villain sniffed out the hidden lock, then grabbed the judges lucky gym socks.
3. The villain leaped over the security fence, then grabbed the judges lucky gym socks.
4. The villain shattered the display case glass with a bark, then left muddy paw prints everywhere.
5. The villain sniffed out the hidden lock, then stuffed three squeaky toys into a bag.
6. The villain leaped over the security fence, then left muddy paw prints everywhere.
7. The villain dashed past the guards in a blur, then grabbed the judges lucky gym socks.
8. The villain tunneled right under the vault door, then snatched a stray flying disc.
9. The villain leaped over the security fence, then stuffed three squeaky toys into a bag.
10. The villain sniffed out the hidden lock, then left muddy paw prints everywhere.
11. The villain tunneled right under the vault door, then bolted after a woodland rodent.
12. The villain dashed past the guards in a blur, then left muddy paw prints everywhere.

Answer Key

The Great Golden Trophy Caper

Culprit: Sammy

Sonic Barking · Frisbee Catching · Left Pawed · Cream Fur · Peanut Butter

Trail: Start 21 → Clue 1 17 → Clue 2 10 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE THIEF DOES NOT LIKE SQUIRREL CHASING"

$4 \times 7 = 28$ (T) · $6 \times 11 = 66$ (C) · $2 \times 11 = 22$ (L) · $12 \times 8 = 96$ (D) · $8 \times 1 = 8$ (G) · $9 \times 3 = 27$ (H) · $12 \times 12 = 144$ (E) · $10 \times 8 = 80$ (A) · $10 \times 2 = 20$ (O) · $7 \times 1 = 7$ (I) · $4 \times 1 = 4$ (Q) · $11 \times 4 = 44$ (S) · $10 \times 5 = 50$ (K) · $9 \times 5 = 45$ (R) · $2 \times 1 = 2$ (N) · $3 \times 2 = 6$ (F) · $7 \times 11 = 77$ (U)

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

Officer Barkley collected 103 squeaky bones in the morning and 59 squeaky bones in the afternoon, then split them equally among 2 The Golden Guard. How many squeaky bones did each get? = 81 (L) · Officer Barkley earned 4 grooming brushes in each of 3 rounds, plus 21 bonus grooming brushes. Then 4 grooming brushes were lost. How many grooming brushes are left? = 29 (P) · Officer Barkley earned 3 squeaky bones in each of 6 rounds, plus 76 bonus squeaky bones. Then 9 squeaky bones were lost. How many squeaky bones are left? = 85 (T) · Officer Barkley filled 9 boxes with 4 grooming brushes each, then found 31 more grooming brushes. How many grooming brushes are there in all? = 67 (E) · There were 507 grooming brushes in all. 37 grooming brushes were set aside. The rest were shared equally among 10 The Golden Guard. How many grooming brushes did each get? = 47 (F) · There were 189 tennis balls in all. 3 The Golden Guard used 15 tennis balls each. The other 2 The Golden Guard shared the rest equally. How many tennis balls did each of the other The Golden Guard get? = 72 (W) · Officer Barkley earned 5 dog biscuits in each of 5 rounds, plus 13 bonus dog biscuits. Then 8 dog biscuits were lost. How many dog biscuits are left? = 30 (A)

Clue 3 (Skip counting): "THE THIEF WAS FOILED BY PEANUT BUTTER"

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

Clue 4 (Subtraction): "CREAM FUR WAS FOUND AT THE SCENE"

$7123 - 3594 = 3529$ (C) · $11897 - 3926 = 7971$ (M) · $10751 - 2354 = 8397$ (R) · $11378 - 4458 = 6920$ (S) · $7753 - 2247 = 5506$ (F) · $8086 - 3581 = 4505$ (U) · $8175 - 897 = 7278$ (A) · $6908 - 671 = 6237$ (E) · $13531 - 4928 = 8603$ (W) · $11662 - 2673 = 8989$ (O) · $4515 - 3309 = 1206$ (N) · $6765 - 4357 = 2408$ (T) · $7725 - 2498 = 5227$ (H) · $7712 - 2061 = 5651$ (D)

Clue 5 (Missing addends): surviving statement is box 1 → Sammy

$15 + \underline{\quad} = 23 = 8$ · $13 + \underline{\quad} = 22 = 9$ · $9 + \underline{\quad} = 14 = 5$ · $21 + \underline{\quad} = 33 = 12$ · $3 + \underline{\quad} = 14 = 11$ · $12 + \underline{\quad} = 16 = 4$ · $9 + \underline{\quad} = 19 = 10$ · $22 + \underline{\quad} = 29 = 7$ · $36 + \underline{\quad} = 39 = 3$ · $31 + \underline{\quad} = 37 = 6$ · $19 + \underline{\quad} = 21 = 2$