



The Treehouse Spy Club: Case of the Missing Golden Pineapple

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

Detective: _____ Date: _____

The Golden Pineapple trophy has vanished from the main treehouse cabin! The Head Scout is counting on our Treehouse Spy Club to crack the case, gather the evidence, and identify the Sneaky Thief before the big campfire meetup tonight.

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 Thief is _____

Possible suspects

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

NAME	PRIMARY GADGET	SECRET BASE ROOM	WRITE HAND	CAP COLOR	DROPPED CANDY
Grace	Sound Listener	Secret Wardrobe	Right-handed	Blue Cap	Gummy Bears
Sam	Night Goggles	Lookout Tower	Left-handed	Blue Cap	Sour Worms
Aria	Sound Listener	Underground Tunnel	Right-handed	Red Cap	Bubble Gum
Jax	Night Goggles	Secret Wardrobe	Left-handed	Blue Cap	Gummy Bears
Chloe	Sound Listener	Underground Tunnel	Left-handed	Blue Cap	Bubble Gum
Ben	Laser Pointer	Attic Loft	Right-handed	Green Cap	Bubble Gum
Harper	Laser Pointer	Lookout Tower	Right-handed	Blue Cap	Gummy Bears
Mason	Grappling Hook	Lookout Tower	Right-handed	Green Cap	Bubble Gum
Zoe	Night Goggles	Back Porch	Right-handed	Green Cap	Bubble Gum
Ava	Super Magnifier	Lookout Tower	Right-handed	Red Cap	Sour Worms
Sophia	Super Magnifier	Underground Tunnel	Right-handed	Blue Cap	Gummy Bears
Leo	Night Goggles	Underground Tunnel	Right-handed	Blue Cap	Bubble Gum
Mia	Super Magnifier	Underground Tunnel	Right-handed	Green Cap	Sour Worms
Wyatt	Laser Pointer	Secret Wardrobe	Right-handed	Blue Cap	Sour Worms
Jack	Grappling Hook	Back Porch	Right-handed	Green Cap	Bubble Gum
Owen	Super Magnifier	Back Porch	Right-handed	Blue Cap	Gummy Bears
Lily	Laser Pointer	Lookout Tower	Left-handed	Blue Cap	Sour Worms
Emma	Night Goggles	Attic Loft	Left-handed	Blue Cap	Gummy Bears
Luke	Grappling Hook	Lookout Tower	Left-handed	Blue Cap	Gummy Bears
Maya	Grappling Hook	Attic Loft	Right-handed	Blue Cap	Gummy Bears
Eli	Super Magnifier	Lookout Tower	Right-handed	Green Cap	Gummy Bears

CLUE 1 Rounding

We check the digital footprints on the grass. The sensor screen only shows rounded estimates of the thief's weight.

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

T																T
20	300	130	2000	9000	110	110	5000	9000	1100	1700	500	130	2300	1100	500	20
				T				T	T						T	
300	5000	2000	130	20	300	130	5000	20	20	9000	900	110	500	3000	20	

Round 20 to the nearest ten → **T**

Round 325 to the nearest hundred → **H**

Round 107 to the nearest ten → **L**

Round 3,328 to the nearest thousand → **F**

Round 2,336 to the nearest hundred → **S**

Round 948 to the nearest hundred → **C**

Round 128 to the nearest ten → **E**

Round 1,720 to the nearest hundred → **D**

Round 1,824 to the nearest thousand → **V**

Round 545 to the nearest hundred → **O**

Round 8,659 to the nearest thousand → **I**

Round 1,089 to the nearest hundred → **N**

Round 5,216 to the nearest thousand → **A**

Scratch space:

CLUE 2 Addition

We gather all the dropped candy wrappers from the lawn. Let's count the total pile to see where they came from.

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

T									T				T				T	
7079	6662	5344	7472	5460	8865	3604	4777	6979	7079	6470	4777	3395	7079	5344	6470	6979	7079	6662
T								T										
7079	6662	5344	4777	6979	2834	6662	7079	6662	7881	4736	8419							

$4002 + 3077 = \square \rightarrow$ T	$1743 + 1091 = \square \rightarrow$ G	$3438 + 5427 = \square \rightarrow$ L
$3239 + 1538 = \square \rightarrow$ R	$2105 + 1499 = \square \rightarrow$ P	$4130 + 4289 = \square \rightarrow$ D
$1659 + 3685 = \square \rightarrow$ E	$4010 + 2969 = \square \rightarrow$ I	$2661 + 2075 = \square \rightarrow$ N
$3428 + 3042 = \square \rightarrow$ W	$3201 + 3461 = \square \rightarrow$ H	$1081 + 2314 = \square \rightarrow$ O
$3552 + 4329 = \square \rightarrow$ A	$2395 + 5077 = \square \rightarrow$ C	$3586 + 1874 = \square \rightarrow$ U

Scratch space:

CLUE 3

Subtraction

Some of our secret decoder cards are missing from the metal box. We subtract the remaining cards to find the stolen amount.

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

W														
3363	7839	2651	4128	5831	1309	1435	7839	1285	4705	8482	6709	6331	5831	1285

2411	7839	4227	2856	2411	4227	6331

$6680 - 3317 = \square \rightarrow \boxed{\text{W}}$

$6740 - 2035 = \square \rightarrow \boxed{\text{P}}$

$5985 - 1758 = \square \rightarrow \boxed{\text{A}}$

$4368 - 1512 = \square \rightarrow \boxed{\text{R}}$

$2336 - 1027 = \square \rightarrow \boxed{\text{N}}$

$10132 - 4301 = \square \rightarrow \boxed{\text{U}}$

$10018 - 1536 = \square \rightarrow \boxed{\text{T}}$

$6740 - 3270 = \square \rightarrow \boxed{\text{S}}$

$9699 - 2990 = \square \rightarrow \boxed{\text{Y}}$

$8819 - 4691 = \square \rightarrow \boxed{\text{O}}$

$3169 - 1734 = \square \rightarrow \boxed{\text{D}}$

$2377 - 1092 = \square \rightarrow \boxed{\text{M}}$

$6965 - 634 = \square \rightarrow \boxed{\text{G}}$

$4284 - 1873 = \square \rightarrow \boxed{\text{B}}$

$3670 - 1019 = \square \rightarrow \boxed{\text{F}}$

$9629 - 1790 = \square \rightarrow \boxed{\text{E}}$

Scratch space:

CLUE 4

Multiplication facts (1-12)

The spy cameras are arranged in neat rows along the side fence. We multiply the rows and columns to find the total footage hours.

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

W																
14	36	80	120	9	63	88	20	40	66	9	36	60	20	22	120	63
7	72	36	80	66	120	120	24									

$2 \times 7 = \square \rightarrow \boxed{\text{W}}$

$12 \times 10 = \square \rightarrow \boxed{\text{O}}$

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

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

$6 \times 12 = \square \rightarrow \boxed{\text{H}}$

$12 \times 5 = \square \rightarrow \boxed{\text{C}}$

$9 \times 7 = \square \rightarrow \boxed{\text{N}}$

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

$9 \times 1 = \square \rightarrow \boxed{\text{U}}$

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

$3 \times 12 = \square \rightarrow \boxed{\text{E}}$

$8 \times 11 = \square \rightarrow \boxed{\text{D}}$

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

$4 \times 10 = \square \rightarrow \boxed{\text{B}}$

$6 \times 4 = \square \rightarrow \boxed{\text{R}}$

Scratch space:

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

We must divide the key evidence cards equally among our detective teams so we can scan them faster.

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:

$18 \div 6 = \boxed{}$

$6 \div 1 = \boxed{}$

$63 \div 9 = \boxed{}$

$50 \div 10 = \boxed{}$

$8 \div 8 = \boxed{}$

$64 \div 8 = \boxed{}$

$12 \div 1 = \boxed{}$

$20 \div 10 = \boxed{}$

$110 \div 11 = \boxed{}$

$90 \div 10 = \boxed{}$

$99 \div 9 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain listened closely through the door with a sound listener, then slipped out onto the back porch.
2. The villain examined the lock with a super magnifier, then climbed up to the lookout tower.
3. The villain listened closely through the door with a sound listener, then ducked inside the secret wardrobe.
4. The villain examined the lock with a super magnifier, then slid into the underground tunnel.
5. The villain used a grappling hook to scale the high wall, then slid into the underground tunnel.
6. The villain examined the lock with a super magnifier, then slipped out onto the back porch.
7. The villain shined a laser pointer to distract the guard dog, then climbed up to the lookout tower.
8. The villain used a grappling hook to scale the high wall, then hid in the attic loft.
9. The villain shined a laser pointer to distract the guard dog, then ducked inside the secret wardrobe.
10. The villain listened closely through the door with a sound listener, then climbed up to the lookout tower.
11. The villain listened closely through the door with a sound listener, then hid in the attic loft.
12. The villain crept in using night goggles, then hid in the attic loft.

Answer Key

The Treehouse Spy Club: Case of the Missing Golden Pineapple

Culprit: Sophia

Super Magnifier · Underground Tunnel · Right-handed · Blue Cap · Gummy Bears

Trail: Start 21 → Clue 1 18 → Clue 2 13 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE VILLAIN DOES NOT HAVE THE ATTIC LOFT"

Round 20 to the nearest ten = 20 (T) · Round 325 to the nearest hundred = 300 (H) · Round 107 to the nearest ten = 110 (L) · Round 3,328 to the nearest thousand = 3000 (F) · Round 2,336 to the nearest hundred = 2300 (S) · Round 948 to the nearest hundred = 900 (C) · Round 128 to the nearest ten = 130 (E) · Round 1,720 to the nearest hundred = 1700 (D) · Round 1,824 to the nearest thousand = 2000 (V) · Round 545 to the nearest hundred = 500 (O) · Round 8,659 to the nearest thousand = 9000 (I) · Round 1,089 to the nearest hundred = 1100 (N) · Round 5,216 to the nearest thousand = 5000 (A)

Clue 2 (Addition): "THE CULPRIT WROTE WITH THE RIGHT HAND"

$4002 + 3077 = 7079$ (T) · $1743 + 1091 = 2834$ (G) · $3438 + 5427 = 8865$ (L) · $3239 + 1538 = 4777$ (R) · $2105 + 1499 = 3604$ (P) · $4130 + 4289 = 8419$ (D) · $1659 + 3685 = 5344$ (E) · $4010 + 2969 = 6979$ (I) · $2661 + 2075 = 4736$ (N) · $3428 + 3042 = 6470$ (W) · $3201 + 3461 = 6662$ (H) · $1081 + 2314 = 3395$ (O) · $3552 + 4329 = 7881$ (A) · $2395 + 5077 = 7472$ (C) · $3586 + 1874 = 5460$ (U)

Clue 3 (Subtraction): "WE FOUND EMPTY GUMMY BEAR BAGS"

$6680 - 3317 = 3363$ (W) · $6740 - 2035 = 4705$ (P) · $5985 - 1758 = 4227$ (A) · $4368 - 1512 = 2856$ (R) · $2336 - 1027 = 1309$ (N) · $10132 - 4301 = 5831$ (U) · $10018 - 1536 = 8482$ (T) · $6740 - 3270 = 3470$ (S) · $9699 - 2990 = 6709$ (Y) · $8819 - 4691 = 4128$ (O) · $3169 - 1734 = 1435$ (D) · $2377 - 1092 = 1285$ (M) · $6965 - 634 = 6331$ (G) · $4284 - 1873 = 2411$ (B) · $3670 - 1019 = 2651$ (F) · $9629 - 1790 = 7839$ (E)

Clue 4 (Multiplication facts (1-12)): "WE FOUND A BLUE CAP ON THE FLOOR"

$2 \times 7 = 14$ (W) · $12 \times 10 = 120$ (O) · $8 \times 10 = 80$ (F) · $2 \times 11 = 22$ (P) · $6 \times 12 = 72$ (H) · $12 \times 5 = 60$ (C) · $9 \times 7 = 63$ (N) · $10 \times 2 = 20$ (A) · $9 \times 1 = 9$ (U) · $6 \times 11 = 66$ (L) · $3 \times 12 = 36$ (E) · $8 \times 11 = 88$ (D) · $1 \times 7 = 7$ (T) · $4 \times 10 = 40$ (B) · $6 \times 4 = 24$ (R)

Clue 5 (Division facts (1-12)): surviving statement is box 4 → Sophia

$18 \div 6 = 3$ · $6 \div 1 = 6$ · $63 \div 9 = 7$ · $50 \div 10 = 5$ · $8 \div 8 = 1$ · $64 \div 8 = 8$ · $12 \div 1 = 12$ · $20 \div 10 = 2$ · $110 \div 11 = 10$ · $90 \div 10 = 9$ · $99 \div 9 = 11$