



The Secret Treehouse Caper

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

Detective: _____ **Date:** _____

Oh no! Someone broke into the Treehouse HQ and took the Golden Juice Box Blueprint! Only a certified Junior Agent could have bypassed the security. We need to find the Shadow Agent before they drink all the sugary glory!

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 Shadow Agent is _____

Possible suspects

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

NAME	SIGNATURE GADGET	SECRET BADGE	WRITING HAND	CAP COLOR	FAVORITE SNACK
Max	grappling hook	gold gear	right handed	green cap	sour gummies
Nancy	decoder ring	silver shield	right handed	blue cap	sour gummies
Hardy	grappling hook	ruby laser	right handed	red cap	cheese puffs
Jupiter	laser pointer	emerald key	right handed	blue cap	sour gummies
Bob	spy camera	ruby laser	left handed	green cap	sour gummies
Sam	laser pointer	bronze star	right handed	green cap	sour gummies
Nate	grappling hook	silver shield	left handed	blue cap	sour gummies
Ben	decoder ring	ruby laser	right handed	blue cap	sour gummies
Sally	grappling hook	bronze star	right handed	blue cap	sour gummies
Leo	spy camera	ruby laser	left handed	red cap	sour gummies
Chloe	decoder ring	gold gear	right handed	green cap	cheese puffs
Luke	smoke bomb	gold gear	right handed	red cap	apple slices
Zoe	decoder ring	emerald key	right handed	blue cap	sour gummies
Toby	smoke bomb	emerald key	right handed	blue cap	apple slices
Mia	laser pointer	silver shield	right handed	green cap	sour gummies
Maya	grappling hook	bronze star	left handed	blue cap	apple slices
Lily	spy camera	emerald key	left handed	blue cap	sour gummies
Encyclopedia	smoke bomb	bronze star	right handed	green cap	apple slices
Jack	grappling hook	gold gear	left handed	green cap	sour gummies
Cam	spy camera	emerald key	right handed	red cap	sour gummies
Pete	grappling hook	silver shield	left handed	red cap	sour gummies

CLUE 1

Our laser distance radar only shows numbers rounded to the nearest ten. We estimated the escape route to decode this message.

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

Round 323 to the nearest hundred $\rightarrow$ **T**

Round 387 to the nearest hundred $\rightarrow$ **L**

Round 47 to the nearest ten $\rightarrow$

Round 88 to the nearest ten $\rightarrow$ **B**

Round 481 to the nearest hundred → **G**

Round 753 to the nearest hundred → **R**

Round 7,942 to the nearest thousand → **D**

Round 34 to the nearest ten $\rightarrow$ **U**

Round 58 to the nearest ten $\rightarrow$ **V**

Round 905 to the nearest hundred $\rightarrow$ **N**

Round 4,743 to the nearest thousand → **H**

Round 43 to the nearest ten → **E**

Round 3,765 to the nearest thousand → **S**

Round 1,778 to the nearest thousand $\rightarrow$ **W**

Round 8,913 to the nearest thousand $\rightarrow$

Round 19 to the nearest ten → **Y**

Round 6,932 to the nearest thousand → **A**

Scratch space:

CLUE 2 Addition

We tallied up all the muddy footprints on the deck. Adding them together gave us the secret lock combination!

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

T						T												
843	343	931	536	871	246	843	582	575	536	889	335	335	343	295	866	575		

				T										T				
582	536	689	343	843	343	575	871	663	931	663	866	582	536	843	931	582		

$358 + 485 = \square \rightarrow \text{**T**}$

$327 + 544 = \square \rightarrow \text{**N**}$

$119 + 224 = \square \rightarrow \text{**H**}$

$91 + 155 = \square \rightarrow \text{**K**}$

$427 + 236 = \square \rightarrow \text{**D**}$

$227 + 462 = \square \rightarrow \text{**G**}$

$358 + 178 = \square \rightarrow \text{**I**}$

$343 + 523 = \square \rightarrow \text{**W**}$

$194 + 141 = \square \rightarrow \text{**S**}$

$341 + 241 = \square \rightarrow \text{**R**}$

$586 + 345 = \square \rightarrow \text{**E**}$

$127 + 168 = \square \rightarrow \text{**O**}$

$542 + 347 = \square \rightarrow \text{**L**}$

$289 + 286 = \square \rightarrow \text{**A**}$

Scratch space:

CLUE 3
Subtraction

The agent dropped a gadget. We subtracted the remaining battery level from the full charge to find the hidden code.

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

W															
699	828	110	306	344	513	818	793	306	344	477	732	344	879	879	319

W																	
699	477	874	773	773	828	477	793	874	399	399	784	828	793	249	828	513	828

$999 - 300 = \square \rightarrow \boxed{\text{W}}$

$723 - 246 = \square \rightarrow \boxed{\text{R}}$

$1040 - 161 = \square \rightarrow \boxed{\text{M}}$

$1129 - 345 = \square \rightarrow \boxed{\text{H}}$

$536 - 230 = \square \rightarrow \boxed{\text{O}}$

$591 - 247 = \square \rightarrow \boxed{\text{U}}$

$178 - 68 = \square \rightarrow \boxed{\text{F}}$

$1106 - 232 = \square \rightarrow \boxed{\text{A}}$

$1066 - 238 = \square \rightarrow \boxed{\text{E}}$

$641 - 242 = \square \rightarrow \boxed{\text{T}}$

$1069 - 276 = \square \rightarrow \boxed{\text{S}}$

$876 - 363 = \square \rightarrow \boxed{\text{N}}$

$404 - 155 = \square \rightarrow \boxed{\text{C}}$

$865 - 133 = \square \rightarrow \boxed{\text{G}}$

$474 - 155 = \square \rightarrow \boxed{\text{Y}}$

$937 - 164 = \square \rightarrow \boxed{\text{P}}$

$1160 - 342 = \square \rightarrow \boxed{\text{D}}$

Scratch space:

CLUE 4
Multiplication facts (1-12)

We found three rows of spy gear boxes. Multiplying the boxes by the rows helped us crack the safe.

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

A																		
2	66	120	28	9	99	64	10	7	25	66	30	45	2	22	121	45	21	132

A		A			A					
2	108	2	22	27	2	66	10	25	121	30

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

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

$11 \times 11 = \square \rightarrow \boxed{\text{F}}$

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

$3 \times 3 = \square \rightarrow \boxed{\text{N}}$

$1 \times 10 = \square \rightarrow \boxed{\text{L}}$

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

$5 \times 5 = \square \rightarrow \boxed{\text{E}}$

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

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

$3 \times 10 = \square \rightarrow \boxed{\text{T}}$

$8 \times 8 = \square \rightarrow \boxed{\text{B}}$

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

$11 \times 12 = \square \rightarrow \boxed{\text{M}}$

$3 \times 7 = \square \rightarrow \boxed{\text{O}}$

$9 \times 12 = \square \rightarrow \boxed{\text{C}}$

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

$9 \times 11 = \square \rightarrow \boxed{\text{Y}}$

Scratch space:

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

We had to share the secret decoder cards equally among the team. Dividing them up revealed the final message.

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:

$12 \div 4 = \boxed{}$

$56 \div 8 = \boxed{}$

$80 \div 10 = \boxed{}$

$18 \div 3 = \boxed{}$

$60 \div 12 = \boxed{}$

$44 \div 11 = \boxed{}$

$63 \div 7 = \boxed{}$

$84 \div 7 = \boxed{}$

$6 \div 6 = \boxed{}$

$70 \div 7 = \boxed{}$

$16 \div 8 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain hacks the mainframe computer, then leaves behind a muddy footprint.
2. The villain swings across the zipline, then leaves behind a muddy footprint.
3. The villain jumps over the dog gate, then leaves behind a muddy footprint.
4. The villain sneaks past the motion detector, then snaps a secret photo.
5. The villain climbs the rope ladder, then drops a walkie talkie.
6. The villain hacks the mainframe computer, then escapes into the bushes.
7. The villain sneaks past the motion detector, then zips up their backpack.
8. The villain jumps over the dog gate, then zips up their backpack.
9. The villain swings across the zipline, then drops a walkie talkie.
10. The villain climbs the rope ladder, then leaves behind a muddy footprint.
11. The villain swings across the zipline, then escapes into the bushes.
12. The villain climbs the rope ladder, then snaps a secret photo.

Answer Key

The Secret Treehouse Caper

Culprit: Sally

grappling hook · bronze star · right handed · blue cap · sour gummies

Trail: Start 21 → Clue 1 17 → Clue 2 12 → Clue 3 8 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE VILLAIN DOES NOT WEAR A RUBY LASER BADGE"

Round 323 to the nearest hundred = 300 (T) · Round 387 to the nearest hundred = 400 (L) · Round 47 to the nearest ten = 50 (I) · Round 88 to the nearest ten = 90 (B) · Round 481 to the nearest hundred = 500 (G) · Round 753 to the nearest hundred = 800 (R) · Round 7,942 to the nearest thousand = 8000 (D) · Round 34 to the nearest ten = 30 (U) · Round 58 to the nearest ten = 60 (V) · Round 905 to the nearest hundred = 900 (N) · Round 4,743 to the nearest thousand = 5000 (H) · Round 43 to the nearest ten = 40 (E) · Round 3,765 to the nearest thousand = 4000 (S) · Round 1,778 to the nearest thousand = 2000 (W) · Round 8,913 to the nearest thousand = 9000 (O) · Round 19 to the nearest ten = 20 (Y) · Round 6,932 to the nearest thousand = 7000 (A)

Clue 2 (Addition): "THE INK TRAILS SHOW A RIGHT HANDED WRITER"

$358 + 485 = 843$ (T) · $327 + 544 = 871$ (N) · $119 + 224 = 343$ (H) · $91 + 155 = 246$ (K) · $427 + 236 = 663$ (D) · $227 + 462 = 689$ (G) · $358 + 178 = 536$ (I) · $343 + 523 = 866$ (W) · $194 + 141 = 335$ (S) · $341 + 241 = 582$ (R) · $586 + 345 = 931$ (E) · $127 + 168 = 295$ (O) · $542 + 347 = 889$ (L) · $289 + 286 = 575$ (A)

Clue 3 (Subtraction): "WE FOUND SOUR GUMMY WRAPPERS AT THE SCENE"

$999 - 300 = 699$ (W) · $723 - 246 = 477$ (R) · $1040 - 161 = 879$ (M) · $1129 - 345 = 784$ (H) · $536 - 230 = 306$ (O) · $591 - 247 = 344$ (U) · $178 - 68 = 110$ (F) · $1106 - 232 = 874$ (A) · $1066 - 238 = 828$ (E) · $641 - 242 = 399$ (T) · $1069 - 276 = 793$ (S) · $876 - 363 = 513$ (N) · $404 - 155 = 249$ (C) · $865 - 133 = 732$ (G) · $474 - 155 = 319$ (Y) · $937 - 164 = 773$ (P) · $1160 - 342 = 818$ (D)

Clue 4 (Multiplication facts (1-12)): "A SHINY BLUE STRAP FROM A CAP WAS LEFT"

$1 \times 2 = 2$ (A) · $5 \times 9 = 45$ (R) · $11 \times 11 = 121$ (F) · $12 \times 10 = 120$ (H) · $3 \times 3 = 9$ (N) · $1 \times 10 = 10$ (L) · $3 \times 9 = 27$ (W) · $5 \times 5 = 25$ (E) · $7 \times 4 = 28$ (I) · $2 \times 11 = 22$ (P) · $3 \times 10 = 30$ (T) · $8 \times 8 = 64$ (B) · $7 \times 1 = 7$ (U) · $11 \times 12 = 132$ (M) · $3 \times 7 = 21$ (O) · $9 \times 12 = 108$ (C) · $6 \times 11 = 66$ (S) · $9 \times 11 = 99$ (Y)

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

$12 \div 4 = 3$ · $56 \div 8 = 7$ · $80 \div 10 = 8$ · $18 \div 3 = 6$ · $60 \div 12 = 5$ · $44 \div 11 = 4$ · $63 \div 7 = 9$ · $84 \div 7 = 12$ · $6 \div 6 = 1$ · $70 \div 7 = 10$ · $16 \div 8 = 2$