



The Great Leaf Thief Chase

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

Detective: _____ **Date:** _____

Someone has stolen the Golden Acorn right before the grand finale of the Autumn Festival! The Great Maple Forest is in a panic. The Chief Festival Organizer needs your help to track down the Leaf Thief before winter arrives!

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 Leaf Thief is _____

Possible suspects

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

NAME	HARVEST MAGIC	AUTUMN GEAR	DOMINANT HAND	FOLIAGE HAIR	SEASONAL ALLERGY
Sienna	Cider Brewing	Acorn Slingshot	Left Handed	Chestnut Brown Hair	Sudden Rain
Gale	Apple Picking	Golden Rake	Left Handed	Chestnut Brown Hair	Winter Breeze
Woody	Apple Picking	Corn Husk Mask	Left Handed	Maple Red Hair	Winter Breeze
Ginger	Pumpkin Carving	Flannel Cloak	Left Handed	Maple Red Hair	Winter Breeze
Cinnamon	Leaf Swirling	Golden Rake	Right Handed	Chestnut Brown Hair	Hay Fever
Maple	Leaf Swirling	Acorn Slingshot	Right Handed	Chestnut Brown Hair	Hay Fever
Bruno	Pumpkin Carving	Golden Rake	Right Handed	Chestnut Brown Hair	Hay Fever
Oakley	Leaf Swirling	Corn Husk Mask	Right Handed	Pumpkin Orange Hair	Winter Breeze
Amber	Pumpkin Carving	Acorn Slingshot	Right Handed	Maple Red Hair	Hay Fever
Breezy	Leaf Swirling	Flannel Cloak	Right Handed	Chestnut Brown Hair	Winter Breeze
Hunter	Apple Picking	Flannel Cloak	Left Handed	Maple Red Hair	Sudden Rain
Scarlet	Frost Summoning	Golden Rake	Left Handed	Maple Red Hair	Winter Breeze
Aster	Cider Brewing	Scarecrow Boots	Right Handed	Chestnut Brown Hair	Hay Fever
Cinder	Cider Brewing	Golden Rake	Right Handed	Pumpkin Orange Hair	Hay Fever
Autumn	Cider Brewing	Corn Husk Mask	Right Handed	Chestnut Brown Hair	Winter Breeze
Rowan	Frost Summoning	Flannel Cloak	Left Handed	Pumpkin Orange Hair	Winter Breeze
Crisp	Cider Brewing	Golden Rake	Left Handed	Chestnut Brown Hair	Hay Fever
Jack	Frost Summoning	Acorn Slingshot	Right Handed	Chestnut Brown Hair	Hay Fever
Hazel	Apple Picking	Acorn Slingshot	Left Handed	Maple Red Hair	Hay Fever
Penny	Pumpkin Carving	Golden Rake	Right Handed	Chestnut Brown Hair	Sudden Rain
Rusty	Frost Summoning	Flannel Cloak	Left Handed	Chestnut Brown Hair	Hay Fever

CLUE 1 Rounding

The weather station radar only shows the temperature rounded to the nearest ten degrees. Use these rounded numbers to estimate the storm direction!

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

T			T											T				
7000	9000	600	7000	9000	200	600	300	5000	4000	600	40	6000	4000	7000	80	600	70	800
											T							
40	2000	70	800	600	2000	800	4000	80	3000	4000	4000	7000	40					

Round 7,177 to the nearest thousand → **T**

Round 82 to the nearest ten → **W**

Round 39 to the nearest ten → **S**

Round 9,140 to the nearest thousand → **H**

Round 67 to the nearest ten → **A**

Round 189 to the nearest hundred → **I**

Round 5,666 to the nearest thousand → **N**

Round 2,716 to the nearest thousand → **B**

Round 581 to the nearest hundred → **E**

Round 1,933 to the nearest thousand → **C**

Round 252 to the nearest hundred → **F**

Round 810 to the nearest hundred → **R**

Round 4,455 to the nearest thousand → **O**

Round 5,338 to the nearest thousand → **D**

Scratch space:

CLUE 2 Addition

To track the thief, we must add up all the fallen leaves left along the muddy path.

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

T 431	860	938	T 431	860	864	938	526	860	849	597	271	T 431	860	938	471	358	206	938
864	981	T 431	860	938	471	864	745	860	T 431	860	358	981	271					

$299 + 132 = \boxed{} \rightarrow \boxed{\text{T}}$

$100 + 171 = \boxed{} \rightarrow \boxed{\text{D}}$

$582 + 282 = \boxed{} \rightarrow \boxed{\text{I}}$

$346 + 251 = \boxed{} \rightarrow \boxed{\text{L}}$

$561 + 288 = \boxed{} \rightarrow \boxed{\text{O}}$

$394 + 466 = \boxed{} \rightarrow \boxed{\text{H}}$

$208 + 150 = \boxed{} \rightarrow \boxed{\text{A}}$

$92 + 114 = \boxed{} \rightarrow \boxed{\text{K}}$

$158 + 313 = \boxed{} \rightarrow \boxed{\text{R}}$

$427 + 554 = \boxed{} \rightarrow \boxed{\text{N}}$

$213 + 313 = \boxed{} \rightarrow \boxed{\text{F}}$

$423 + 515 = \boxed{} \rightarrow \boxed{\text{E}}$

$487 + 258 = \boxed{} \rightarrow \boxed{\text{G}}$

Scratch space:

CLUE 3

Subtraction

The prize pumpkin is missing some weight. Subtract the light pumpkin from the heavy one to see how much was taken.

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

T																
156	874	789	728	134	668	668	756	134	598	555	598	789	789	824	789	308

				T										
598	789	756	669	156	874	789	874	756	685	153	756	668	789	555

$520 - 364 = \square \rightarrow \boxed{\text{T}}$

$881 - 92 = \square \rightarrow \boxed{\text{E}}$

$420 - 267 = \square \rightarrow \boxed{\text{B}}$

$840 - 242 = \square \rightarrow \boxed{\text{N}}$

$899 - 231 = \square \rightarrow \boxed{\text{L}}$

$498 - 190 = \square \rightarrow \boxed{\text{D}}$

$160 - 26 = \square \rightarrow \boxed{\text{I}}$

$1093 - 337 = \square \rightarrow \boxed{\text{A}}$

$927 - 53 = \square \rightarrow \boxed{\text{H}}$

$804 - 249 = \square \rightarrow \boxed{\text{S}}$

$988 - 260 = \square \rightarrow \boxed{\text{V}}$

$950 - 265 = \square \rightarrow \boxed{\text{Y}}$

$1169 - 345 = \square \rightarrow \boxed{\text{Z}}$

$922 - 253 = \square \rightarrow \boxed{\text{R}}$

Scratch space:

CLUE 4
Multiplication facts (1-12)

We found rows of apple boxes in the orchard. Multiply the rows by the boxes to find the total.

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

C																	
77	48	3	33	22	110	55	22	32	21	42	40	110	48	90	7	21	

C														C	
77	9	55	110	144	22	42	22	48	3	32	21	90	110	77	48

$11 \times 7 = \square \rightarrow \text{C}$

$4 \times 8 = \square \rightarrow \text{B}$

$11 \times 2 = \square \rightarrow \text{T}$

$12 \times 12 = \square \rightarrow \text{G}$

$6 \times 7 = \square \rightarrow \text{O}$

$1 \times 3 = \square \rightarrow \text{E}$

$3 \times 11 = \square \rightarrow \text{S}$

$1 \times 9 = \square \rightarrow \text{L}$

$6 \times 8 = \square \rightarrow \text{H}$

$3 \times 7 = \square \rightarrow \text{R}$

$11 \times 5 = \square \rightarrow \text{U}$

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

$9 \times 10 = \square \rightarrow \text{A}$

$10 \times 11 = \square \rightarrow \text{N}$

$8 \times 5 = \square \rightarrow \text{W}$

Scratch space:

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

The Squirrel Guard wants to share their cider treats evenly. Divide the bottles to see what each guard gets.

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:

$63 \div 9 = \boxed{}$

$45 \div 9 = \boxed{}$

$36 \div 4 = \boxed{}$

$11 \div 11 = \boxed{}$

$10 \div 5 = \boxed{}$

$24 \div 2 = \boxed{}$

$54 \div 9 = \boxed{}$

$30 \div 3 = \boxed{}$

$12 \div 4 = \boxed{}$

$110 \div 10 = \boxed{}$

$16 \div 4 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain shook all the apples off the trees, then wrapped up tight in a flannel cloak.
2. The villain coated the festival grounds in frost, then swept up the clues with a golden rake.
3. The villain brewed a massive vat of hot cider, then swept up the clues with a golden rake.
4. The villain brewed a massive vat of hot cider, then fired acorns at the festival lights.
5. The villain coated the festival grounds in frost, then fired acorns at the festival lights.
6. The villain carved a giant spooky pumpkin face, then hid behind a spooky corn husk mask.
7. The villain swirled a storm of dry leaves, then fired acorns at the festival lights.
8. The villain carved a giant spooky pumpkin face, then swept up the clues with a golden rake.
9. The villain swirled a storm of dry leaves, then swept up the clues with a golden rake.
10. The villain swirled a storm of dry leaves, then wrapped up tight in a flannel cloak.
11. The villain carved a giant spooky pumpkin face, then fired acorns at the festival lights.
12. The villain brewed a massive vat of hot cider, then wrapped up tight in a flannel cloak.

Answer Key

The Great Leaf Thief Chase

Culprit: Bruno

Pumpkin Carving · Golden Rake · Right Handed · Chestnut Brown Hair · Hay Fever

Trail: Start 21 → Clue 1 20 → Clue 2 10 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE THIEF DOES NOT WEAR SCARECROW BOOTS"

Round 7,177 to the nearest thousand = 7000 (T) · Round 82 to the nearest ten = 80 (W) · Round 39 to the nearest ten = 40 (S) · Round 9,140 to the nearest thousand = 9000 (H) · Round 67 to the nearest ten = 70 (A) · Round 189 to the nearest hundred = 200 (I) · Round 5,666 to the nearest thousand = 6000 (N) · Round 2,716 to the nearest thousand = 3000 (B) · Round 581 to the nearest hundred = 600 (E) · Round 1,933 to the nearest thousand = 2000 (C) · Round 252 to the nearest hundred = 300 (F) · Round 810 to the nearest hundred = 800 (R) · Round 4,455 to the nearest thousand = 4000 (O) · Round 5,338 to the nearest thousand = 5000 (D)

Clue 2 (Addition): "THE THIEF HOLD THE RAKE IN THE RIGHT HAND"

$299 + 132 = 431$ (T) · $100 + 171 = 271$ (D) · $582 + 282 = 864$ (I) · $346 + 251 = 597$ (L) · $561 + 288 = 849$ (O) · $394 + 466 = 860$ (H) · $208 + 150 = 358$ (A) · $92 + 114 = 206$ (K) · $158 + 313 = 471$ (R) · $427 + 554 = 981$ (N) · $213 + 313 = 526$ (F) · $423 + 515 = 938$ (E) · $487 + 258 = 745$ (G)

Clue 3 (Subtraction): "THE VILLAIN SNEEZED NEAR THE HAY BALES"

$520 - 364 = 156$ (T) · $881 - 92 = 789$ (E) · $420 - 267 = 153$ (B) · $840 - 242 = 598$ (N) · $899 - 231 = 668$ (L) · $498 - 190 = 308$ (D) · $160 - 26 = 134$ (I) · $1093 - 337 = 756$ (A) · $927 - 53 = 874$ (H) · $804 - 249 = 555$ (S) · $988 - 260 = 728$ (V) · $950 - 265 = 685$ (Y) · $1169 - 345 = 824$ (Z) · $922 - 253 = 669$ (R)

Clue 4 (Multiplication facts (1-12)): "CHESTNUT BROWN HAIR CLUNG TO THE BRANCH"

$11 \times 7 = 77$ (C) · $4 \times 8 = 32$ (B) · $11 \times 2 = 22$ (T) · $12 \times 12 = 144$ (G) · $6 \times 7 = 42$ (O) · $1 \times 3 = 3$ (E) · $3 \times 11 = 33$ (S) · $1 \times 9 = 9$ (L) · $6 \times 8 = 48$ (H) · $3 \times 7 = 21$ (R) · $11 \times 5 = 55$ (U) · $7 \times 1 = 7$ (I) · $9 \times 10 = 90$ (A) · $10 \times 11 = 110$ (N) · $8 \times 5 = 40$ (W)

Clue 5 (Division facts (1-12)): surviving statement is box 8 → Bruno

$63 \div 9 = 7$ · $45 \div 9 = 5$ · $36 \div 4 = 9$ · $11 \div 11 = 1$ · $10 \div 5 = 2$ · $24 \div 2 = 12$ · $54 \div 9 = 6$ · $30 \div 3 = 10$ · $12 \div 4 = 3$ · $110 \div 10 = 11$ · $16 \div 4 = 4$