The Mystery of the Missing Pumpkin Pie Trophy

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

Detective: _____ **Date:** _____

It is November in Harvest Hollow! The annual Fall Festival is in full swing, but someone snatched the Golden Pumpkin Pie Trophy right before the grand contest. Detective, inspect the clues around the crisp fallen leaves to find out who did it!

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 Autumn Bandit is _____

Possible suspects

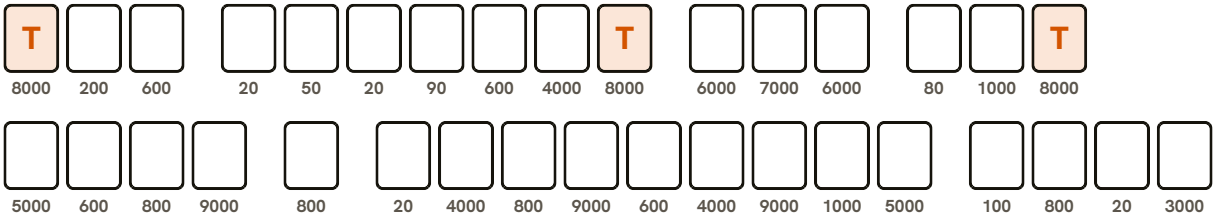
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	FAVORITE FALL TREAT	DISGUISE GEAR	GLOVE HAND	SCARF COLOR	WEAKNESS
Mayor Hazel	Apple Cider Donuts	Flannel Poncho	Right Handed	Orange Scarf	Sudden Rain
Breeze Bailey	Cinnamon Churros	Flannel Poncho	Right Handed	Orange Scarf	Strong Gusts
Maple Mary	Roasted Chestnuts	Scarecrow Mask	Right Handed	Yellow Scarf	Sudden Rain
Pie Piper	Apple Cider Donuts	Leaf Pile Cloak	Left Handed	Orange Scarf	Sudden Rain
Acorn Archie	Roasted Chestnuts	Leaf Pile Cloak	Left Handed	Orange Scarf	Strong Gusts
Sienna Leaf	Cinnamon Churros	Acorn Helmet	Left Handed	Yellow Scarf	Strong Gusts
Maize Miller	Pumpkin Spice Latte	Leaf Pile Cloak	Left Handed	Yellow Scarf	Sudden Rain
Rusty Pines	Roasted Chestnuts	Cornstalk Boots	Right Handed	Plaid Scarf	Strong Gusts
Cider Cindy	Apple Cider Donuts	Cornstalk Boots	Right Handed	Plaid Scarf	Sudden Rain
Rowan Rivers	Roasted Chestnuts	Leaf Pile Cloak	Right Handed	Orange Scarf	Strong Gusts
Copper King	Roasted Chestnuts	Flannel Poncho	Right Handed	Orange Scarf	Strong Gusts
Tawny Turner	Pecan Pie Slices	Cornstalk Boots	Right Handed	Orange Scarf	Strong Gusts
Chester Nut	Apple Cider Donuts	Scarecrow Mask	Right Handed	Yellow Scarf	Strong Gusts
Hunter Crisp	Pecan Pie Slices	Flannel Poncho	Right Handed	Yellow Scarf	Cold Drafts
Gourd Gordon	Roasted Chestnuts	Leaf Pile Cloak	Left Handed	Yellow Scarf	Cold Drafts
Woody Bark	Cinnamon Churros	Leaf Pile Cloak	Right Handed	Plaid Scarf	Strong Gusts
Autumn Amber	Pecan Pie Slices	Leaf Pile Cloak	Right Handed	Plaid Scarf	Strong Gusts
Baker Ben	Cinnamon Churros	Flannel Poncho	Right Handed	Yellow Scarf	Strong Gusts
Farmer Bob	Apple Cider Donuts	Leaf Pile Cloak	Left Handed	Orange Scarf	Cold Drafts
Forrest Oak	Cinnamon Churros	Cornstalk Boots	Right Handed	Plaid Scarf	Cold Drafts
Frosty Fred	Roasted Chestnuts	Scarecrow Mask	Right Handed	Orange Scarf	Strong Gusts

CLUE 1 Place value

You check the digit values on the ticket stub dropped near the trophy stand to narrow down the clue.

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



What is the value of the 8 in 68,712? ☐ → T

What is the value of the 6 in 635? ☐ → E

What is the value of the 2 in 266? ☐ → H

What is the value of the 8 in 3,689? ☐ → N

What is the value of the 5 in 6,256? ☐ → U

What is the value of the 1 in 31,232? ☐ → O

What is the value of the 3 in 23,179? ☐ → K

What is the value of the 7 in 57,116? ☐ → I

What is the value of the 5 in 95,926? ☐ → W

What is the value of the 1 in 8,185? ☐ → M

What is the value of the 4 in 4,283? ☐ → C

What is the value of the 9 in 8,790? ☐ → P

What is the value of the 8 in 7,897? ☐ → A

What is the value of the 6 in 26,902? ☐ → D

What is the value of the 2 in 7,320? ☐ → S

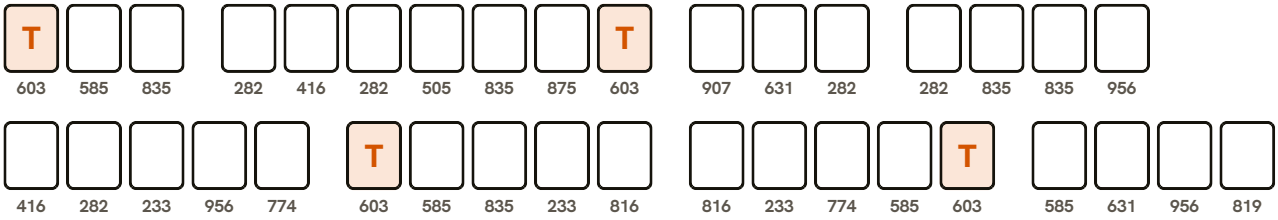
What is the value of the 9 in 9,317? ☐ → R

Scratch space:

CLUE 2 Addition

You add up all the festival tickets collected at the pie booth to solve the next code.

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



382 + 221 = ☐ → T

447 + 428 = ☐ → C

128 + 105 = ☐ → I

570 + 265 = ☐ → E

86 + 196 = ☐ → S

271 + 145 = ☐ → U

219 + 366 = ☐ → H

523 + 293 = ☐ → R

238 + 267 = ☐ → P

548 + 271 = ☐ → D

586 + 321 = ☐ → W

451 + 505 = ☐ → N

238 + 536 = ☐ → G

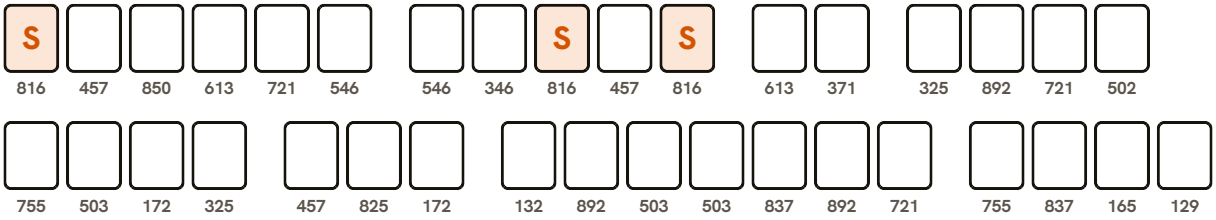
396 + 235 = ☐ → A

Scratch space:

CLUE 3 Subtraction

You subtract the eaten apples from the total stash to find out how many clues remain.

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



964 - 148 = ☐ → S

981 - 226 = ☐ → B

739 - 18 = ☐ → N

829 - 327 = ☐ → D

708 - 383 = ☐ → W

1072 - 180 = ☐ → I

686 - 73 = ☐ → O

941 - 104 = ☐ → A

548 - 202 = ☐ → U

882 - 32 = ☐ → R

318 - 153 = ☐ → C

384 - 13 = ☐ → F

615 - 158 = ☐ → T

829 - 283 = ☐ → G

330 - 198 = ☐ → V

797 - 294 = ☐ → L

197 - 68 = ☐ → K

1224 - 399 = ☐ → H

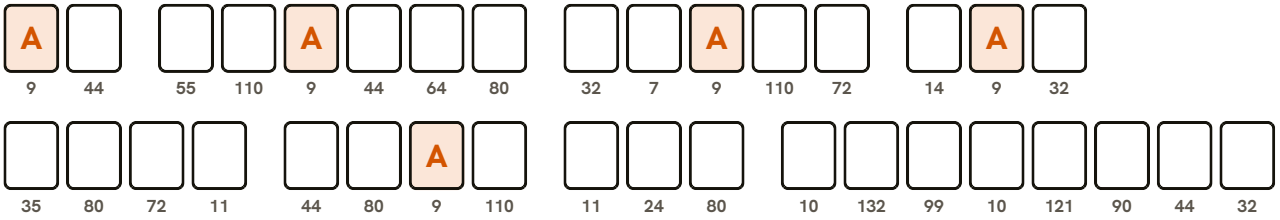
439 - 267 = ☐ → E

Scratch space:

CLUE 4 Multiplication facts (1-12)

You multiply the rows of pumpkins in the patch to unlock the locked diary page.

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



9 × 1 = ☐ → A	4 × 8 = ☐ → S	4 × 11 = ☐ → N
11 × 11 = ☐ → K	7 × 2 = ☐ → W	11 × 10 = ☐ → R
5 × 7 = ☐ → L	12 × 2 = ☐ → H	11 × 5 = ☐ → O
1 × 7 = ☐ → C	8 × 8 = ☐ → G	1 × 10 = ☐ → P
11 × 1 = ☐ → T	6 × 12 = ☐ → F	12 × 11 = ☐ → U
10 × 9 = ☐ → I	8 × 10 = ☐ → E	9 × 11 = ☐ → M

Scratch space:

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

> You divide the total hay bales evenly among the farm teams to reveal the final lead.

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:

96 ÷ 8 = ☐	8 ÷ 1 = ☐	55 ÷ 5 = ☐	3 ÷ 1 = ☐	12 ÷ 6 = ☐
70 ÷ 10 = ☐	99 ÷ 11 = ☐	10 ÷ 10 = ☐	48 ÷ 8 = ☐	50 ÷ 5 = ☐
20 ÷ 5 = ☐				

Step 2 - cross out the sentence with each answer:

1. The villain snacked on cinnamon churros, then pulled on cornstalk boots.
2. The villain stole apple cider donuts, then draped a leaf pile cloak.
3. The villain swiped pecan pie slices, then draped a leaf pile cloak.
4. The villain drank pumpkin spice latte, then draped a leaf pile cloak.
5. The villain swiped pecan pie slices, then pulled on cornstalk boots.
6. The villain swiped pecan pie slices, then put on a scarecrow mask.
7. The villain stole apple cider donuts, then wrapped in a flannel poncho.
8. The villain munched roasted chestnuts, then draped a leaf pile cloak.
9. The villain snacked on cinnamon churros, then draped a leaf pile cloak.
10. The villain snacked on cinnamon churros, then strapped on an acorn helmet.
11. The villain snacked on cinnamon churros, then wrapped in a flannel poncho.
12. The villain munched roasted chestnuts, then wrapped in a flannel poncho.

TEACHER / PARENT

Answer Key

The Mystery of the Missing Pumpkin Pie Trophy

Culprit: Tawny Turner

Pecan Pie Slices · Cornstalk Boots · Right Handed · Orange Scarf · Strong Gusts

Trail: Start 21 → Clue 1 18 → Clue 2 12 → Clue 3 8 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE SUSPECT DID NOT WEAR A SCARECROW MASK"

What is the value of the 8 in 68,712? = 8000 (T) · What is the value of the 6 in 635? = 600 (E) · What is the value of the 2 in 266? = 200 (H) · What is the value of the 8 in 3,689? = 80 (N) · What is the value of the 5 in 6,256? = 50 (U) · What is the value of the 1 in 31,232? = 1000 (O) · What is the value of the 3 in 23,179? = 3000 (K) · What is the value of the 7 in 57,116? = 7000 (I) · What is the value of the 5 in 95,926? = 5000 (W) · What is the value of the 1 in 8,185? = 100 (M) · What is the value of the 4 in 4,283? = 4000 (C) · What is the value of the 9 in 8,790? = 90 (P) · What is the value of the 8 in 7,897? = 800 (A) · What is the value of the 6 in 26,902? = 6000 (D) · What is the value of the 2 in 7,320? = 20 (S) · What is the value of the 9 in 9,317? = 9000 (R)

Clue 2 (Addition): "THE SUSPECT WAS SEEN USING THEIR RIGHT HAND"

382 + 221 = 603 (T) · 447 + 428 = 875 (C) · 128 + 105 = 233 (I) · 570 + 265 = 835 (E) · 86 + 196 = 282 (S) · 271 + 145 = 416 (U) · 219 + 366 = 585 (H) · 523 + 293 = 816 (R) · 238 + 267 = 505 (P) · 548 + 271 = 819 (D) · 586 + 321 = 907 (W) · 451 + 505 = 956 (N) · 238 + 536 = 774 (G) · 396 + 235 = 631 (A)

Clue 3 (Subtraction): "STRONG GUSTS OF WIND BLEW THE VILLAIN BACK"

964 - 148 = 816 (S) · 981 - 226 = 755 (B) · 739 - 18 = 721 (N) · 829 - 327 = 502 (D) · 708 - 383 = 325 (W) · 1072 - 180 = 892 (I) · 686 - 73 = 613 (O) · 941 - 104 = 837 (A) · 548 - 202 = 346 (U) · 882 - 32 = 850 (R) · 318 - 153 = 165 (C) · 384 - 13 = 371 (F) · 615 - 158 = 457 (T) · 829 - 283 = 546 (G) · 330 - 198 = 132 (V) · 797 - 294 = 503 (L) · 197 - 68 = 129 (K) · 1224 - 399 = 825 (H) · 439 - 267 = 172 (E)

Clue 4 (Multiplication facts (1-12)): "AN ORANGE SCARF WAS LEFT NEAR THE PUMPKINS"

9 × 1 = 9 (A) · 4 × 8 = 32 (S) · 4 × 11 = 44 (N) · 11 × 11 = 121 (K) · 7 × 2 = 14 (W) · 11 × 10 = 110 (R) · 5 × 7 = 35 (L) · 12 × 2 = 24 (H) · 11 × 5 = 55 (O) · 1 × 7 = 7 (C) · 8 × 8 = 64 (G) · 1 × 10 = 10 (P) · 11 × 1 = 11 (T) · 6 × 12 = 72 (F) · 12 × 11 = 132 (U) · 10 × 9 = 90 (I) · 8 × 10 = 80 (E) · 9 × 11 = 99 (M)

Clue 5 (Division facts (1-12)): surviving statement is box 5 → Tawny Turner

96 ÷ 8 = 12 · 8 ÷ 1 = 8 · 55 ÷ 5 = 11 · 3 ÷ 1 = 3 · 12 ÷ 6 = 2 · 70 ÷ 10 = 7 · 99 ÷ 11 = 9 · 10 ÷ 10 = 1 · 48 ÷ 8 = 6 · 50 ÷ 5 = 10 · 20 ÷ 5 = 4