



The Midnight Pumpkin Heist

Grade 6 math · Multiplication, Percentages, Exponents, Order of operations, Division · Reading level grades 5-6

Detective: _____ **Date:** _____

During the annual Halloween Bash, someone snatched the legendary Golden Pumpkin Pie right off the display table! Use your deduction skills to uncover the suspect before the midnight costume contest ends.

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 Pumpkin Snatcher is _____

Possible suspects

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

NAME	SPOOKY ABILITY	HALLOWEEN GADGET	DOMINANT HAND	HAIR STYLE	SECRET WEAKNESS
Count Dracula	Pumpkin Spells	Candy Cannon	Right Handed	Spiderweb Brunette	Bright Flashlight
Jack Lantern	Bat Swarming	Spider Blaster	Left Handed	Candy Corn Orange	Bright Flashlight
Raven Poe	Ghostly Levitation	Glow Lantern	Right Handed	Candy Corn Orange	Bright Flashlight
Wanda Witch	Skeleton Dance	Candy Cannon	Left Handed	Candy Corn Orange	Garlic Spray
Silas Shadow	Skeleton Dance	Candy Cannon	Right Handed	Spiderweb Brunette	Bright Flashlight
Gomez Addams	Skeleton Dance	Spider Blaster	Right Handed	Spiderweb Brunette	Garlic Spray
Merlin Graves	Bat Swarming	Candy Cannon	Right Handed	Spiderweb Brunette	Bright Flashlight
Frank Stein	Ghostly Levitation	Candy Cannon	Left Handed	Candy Corn Orange	Bright Flashlight
Barnaby Bat	Ghostly Levitation	Spider Blaster	Left Handed	Neon Green Wig	Bright Flashlight
Astrid Phantom	Ghostly Levitation	Glow Lantern	Left Handed	Spiderweb Brunette	Loud Music
Sabrina Night	Pumpkin Spells	Candy Cannon	Right Handed	Neon Green Wig	Loud Music
Victor Frankenstein	Shadow Blending	Bat Drone	Right Handed	Neon Green Wig	Garlic Spray
Bram Stoker	Ghostly Levitation	Candy Cannon	Right Handed	Candy Corn Orange	Loud Music
Piper Pumpkin	Ghostly Levitation	Bat Drone	Left Handed	Spiderweb Brunette	Bright Flashlight
Casper Vance	Pumpkin Spells	Glow Lantern	Right Handed	Candy Corn Orange	Loud Music
Igor Smith	Ghostly Levitation	Fog Machine	Right Handed	Spiderweb Brunette	Bright Flashlight
Elvira Moon	Shadow Blending	Bat Drone	Left Handed	Candy Corn Orange	Bright Flashlight
Blair Witch	Pumpkin Spells	Glow Lantern	Right Handed	Spiderweb Brunette	Loud Music
Hazel Broom	Pumpkin Spells	Spider Blaster	Right Handed	Spiderweb Brunette	Bright Flashlight
Jasper Haunt	Pumpkin Spells	Candy Cannon	Left Handed	Spiderweb Brunette	Loud Music
Gideon Ghost	Ghostly Levitation	Spider Blaster	Left Handed	Spiderweb Brunette	Garlic Spray

Multiplication facts (1-12)

Detective Parker tallied the trays of spooky treats arranged in neat identical rows across the banquet tables.

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

60 25 90 49 66 22 22 110 66 144 5 66 5 144 18 60 63 56 90

110 108 18 32 72 110 4 25 66 144 90

$12 \times 5 = \boxed{} \rightarrow \boxed{\text{T}}$

$4 \times 1 = \boxed{} \rightarrow \boxed{\text{C}}$

$$12 \times 12 = \boxed{} \rightarrow \boxed{\text{N}}$$

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

$$11 \times 6 = \boxed{} \rightarrow \boxed{1}$$

$$9 \times 7 = \boxed{} \rightarrow \boxed{\text{U}}$$

$$7 \times 7 = \boxed{} \rightarrow \boxed{\mathbf{V}}$$

$8 \times 9 = \boxed{} \rightarrow \boxed{\mathbf{M}}$

$8 \times 7 = \boxed{} \rightarrow \boxed{\mathbf{S}}$

$10 \times 9 = \boxed{} \rightarrow \boxed{\text{E}}$

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

$10 \times 11 = \boxed{} \rightarrow \boxed{\mathbf{A}}$

$1 \times 5 = \boxed{} \rightarrow \boxed{\text{D}}$

$8 \times 4 = \square \rightarrow \boxed{\mathbf{G}}$

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

$$3 \times 6 = \boxed{} \rightarrow \boxed{0}$$

Scratch space:

CLUE 2
Percentages

The manor security system displayed a partial percentage breakdown of energy draining from the power grid.

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

T																		
43	18	24	37	29	24	25	22	1	44	19	8	23	14	16	43	16	37	

				T							
14	16	5	18	43	18	25	29	3	24	3	

$10\% \text{ of } 430 = \square \rightarrow \boxed{\text{T}}$

$5\% \text{ of } 460 = \square \rightarrow \boxed{\text{P}}$

$5\% \text{ of } 360 = \square \rightarrow \boxed{\text{H}}$

$20\% \text{ of } 220 = \square \rightarrow \boxed{\text{C}}$

$10\% \text{ of } 50 = \square \rightarrow \boxed{\text{G}}$

$5\% \text{ of } 580 = \square \rightarrow \boxed{\text{N}}$

$10\% \text{ of } 220 = \square \rightarrow \boxed{\text{K}}$

$10\% \text{ of } 30 = \square \rightarrow \boxed{\text{D}}$

$5\% \text{ of } 740 = \square \rightarrow \boxed{\text{S}}$

$20\% \text{ of } 120 = \square \rightarrow \boxed{\text{E}}$

$25\% \text{ of } 4 = \square \rightarrow \boxed{\text{Y}}$

$40\% \text{ of } 20 = \square \rightarrow \boxed{\text{L}}$

$50\% \text{ of } 28 = \square \rightarrow \boxed{\text{R}}$

$25\% \text{ of } 100 = \square \rightarrow \boxed{\text{A}}$

$20\% \text{ of } 95 = \square \rightarrow \boxed{\text{U}}$

$5\% \text{ of } 320 = \square \rightarrow \boxed{\text{I}}$

Scratch space:

CLUE 3 Exponents

The digital lock on the creepy vault required calculating the exponential growth of bat sightings over three hours.

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

A									A							
81	289	27	144	9	216	343	225	169	81	121	216	169	144	9	216	343

	A								A							
125	81	8	400	343	216	400	128	144	169	169	81	144	64	225	169	400

$3^4 = \square \rightarrow \mathbf{A}$	$17^2 = \square \rightarrow \mathbf{B}$	$4^3 = \square \rightarrow \mathbf{N}$	$5^3 = \square \rightarrow \mathbf{M}$
$2^3 = \square \rightarrow \mathbf{D}$	$15^2 = \square \rightarrow \mathbf{F}$	$11^2 = \square \rightarrow \mathbf{S}$	$6^3 = \square \rightarrow \mathbf{H}$
$20^2 = \square \rightarrow \mathbf{E}$	$7^3 = \square \rightarrow \mathbf{T}$	$12^2 = \square \rightarrow \mathbf{I}$	$13^2 = \square \rightarrow \mathbf{L}$
$3^2 = \square \rightarrow \mathbf{G}$	$2^7 = \square \rightarrow \mathbf{V}$	$3^3 = \square \rightarrow \mathbf{R}$	

Scratch space:

CLUE 4

Order of operations

To unlock the secret door, the detective had to solve a multi-step code following strict rules of order.

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

S																	
15	32	43	45	57	75	16	57	10	10	75	26	12	57	7	7	57	

						S								S					
13	49	43	75	16	49	15	72	11	26	12	45	49	7	15	48	57	12	57	

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

$4 \times 9 - 4 = \square \rightarrow \boxed{\text{P}}$

$33 + 4 \times 6 = \square \rightarrow \boxed{\text{E}}$

$8 + 4 \times 2 = \square \rightarrow \boxed{\text{W}}$

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

$11 \times 2 - 12 = \square \rightarrow \boxed{\text{B}}$

$2 \times 10 - 8 = \square \rightarrow \boxed{\text{N}}$

$12 \times 5 - 11 = \square \rightarrow \boxed{\text{A}}$

$12 + 9 \times 4 = \square \rightarrow \boxed{\text{C}}$

$66 + 3 \times 2 = \square \rightarrow \boxed{\text{F}}$

$9 \times 8 - 29 = \square \rightarrow \boxed{\text{I}}$

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

$7 \times 9 - 18 = \square \rightarrow \boxed{\text{D}}$

$7 \times 2 - 1 = \square \rightarrow \boxed{\text{H}}$

$7 \times 4 - 17 = \square \rightarrow \boxed{\text{O}}$

$9 \times 11 - 24 = \square \rightarrow \boxed{\text{R}}$

Scratch space:

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

The remaining glow sticks needed to be divided equally among all four search teams covering the dark maze.

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:

$80 \div 8 = \boxed{}$

$18 \div 9 = \boxed{}$

$56 \div 8 = \boxed{}$

$9 \div 9 = \boxed{}$

$120 \div 10 = \boxed{}$

$77 \div 7 = \boxed{}$

$36 \div 9 = \boxed{}$

$12 \div 4 = \boxed{}$

$48 \div 8 = \boxed{}$

$35 \div 7 = \boxed{}$

$48 \div 6 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain floated into the pantry, then lit up the dark hallway.
2. The villain cast a pumpkin curse, then fired sticky cobwebs at the guards.
3. The villain summoned a flock of bats, then lit up the dark hallway.
4. The villain melted into the dark corners, then zipped away on a mechanical bat.
5. The villain rattled bone armor, then zipped away on a mechanical bat.
6. The villain melted into the dark corners, then filled the ballroom with thick mist.
7. The villain cast a pumpkin curse, then blasted sugary treats everywhere.
8. The villain cast a pumpkin curse, then zipped away on a mechanical bat.
9. The villain rattled bone armor, then blasted sugary treats everywhere.
10. The villain summoned a flock of bats, then blasted sugary treats everywhere.
11. The villain rattled bone armor, then fired sticky cobwebs at the guards.
12. The villain summoned a flock of bats, then zipped away on a mechanical bat.

Answer Key

The Midnight Pumpkin Heist

Culprit: Silas Shadow

Skeleton Dance · Candy Cannon · Right Handed · Spiderweb Brunette · Bright Flashlight

Trail: Start 21 → Clue 1 20 → Clue 2 11 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE VILLAIN DID NOT USE A FOG MACHINE"

$12 \times 5 = 60$ (T) · $4 \times 1 = 4$ (C) · $12 \times 12 = 144$ (N) · $12 \times 9 = 108$ (F) · $11 \times 6 = 66$ (I) · $9 \times 7 = 63$ (U) · $7 \times 7 = 49$ (V) · $8 \times 9 = 72$ (M) · $8 \times 7 = 56$ (S) · $10 \times 9 = 90$ (E) · $2 \times 11 = 22$ (L) · $10 \times 11 = 110$ (A) · $1 \times 5 = 5$ (D) · $8 \times 4 = 32$ (G) · $5 \times 5 = 25$ (H) · $3 \times 6 = 18$ (O)

Clue 2 (Percentages): "THE SNEAKY CULPRIT IS RIGHT HANDED"

10% of 430 = 43 (T) · 5% of 460 = 23 (P) · 5% of 360 = 18 (H) · 20% of 220 = 44 (C) · 10% of 50 = 5 (G) · 5% of 580 = 29 (N) · 10% of 220 = 22 (K) · 10% of 30 = 3 (D) · 5% of 740 = 37 (S) · 20% of 120 = 24 (E) · 25% of 4 = 1 (Y) · 40% of 20 = 8 (L) · 50% of 28 = 14 (R) · 25% of 100 = 25 (A) · 20% of 95 = 19 (U) · 5% of 320 = 16 (I)

Clue 3 (Exponents): "A BRIGHT FLASHLIGHT MADE THE VILLAIN FLEE"

$3^4 = 81$ (A) · $17^2 = 289$ (B) · $4^3 = 64$ (N) · $5^3 = 125$ (M) · $2^3 = 8$ (D) · $15^2 = 225$ (F) · $11^2 = 121$ (S) · $6^3 = 216$ (H) · $20^2 = 400$ (E) · $7^3 = 343$ (T) · $12^2 = 144$ (I) · $13^2 = 169$ (L) · $3^2 = 9$ (G) · $2^7 = 128$ (V) · $3^3 = 27$ (R)

Clue 4 (Order of operations): "SPIDERWEB BRUNETTE HAIR WAS FOUND AT SCENE"

$11 + 2 \times 2 = 15$ (S) · $4 \times 9 - 4 = 32$ (P) · $33 + 4 \times 6 = 57$ (E) · $8 + 4 \times 2 = 16$ (W) · $3 + 2 \times 2 = 7$ (T) · $11 \times 2 - 12 = 10$ (B) · $2 \times 10 - 8 = 12$ (N) · $12 \times 5 - 11 = 49$ (A) · $12 + 9 \times 4 = 48$ (C) · $66 + 3 \times 2 = 72$ (F) · $9 \times 8 - 29 = 43$ (I) · $10 + 4 \times 4 = 26$ (U) · $7 \times 9 - 18 = 45$ (D) · $7 \times 2 - 1 = 13$ (H) · $7 \times 4 - 17 = 11$ (O) · $9 \times 11 - 24 = 75$ (R)

Clue 5 (Division facts (1-12)): surviving statement is box 9 → Silas Shadow

$80 \div 8 = 10$ · $18 \div 9 = 2$ · $56 \div 8 = 7$ · $9 \div 9 = 1$ · $120 \div 10 = 12$ · $77 \div 7 = 11$ · $36 \div 9 = 4$ · $12 \div 4 = 3$ · $48 \div 8 = 6$ · $35 \div 7 = 5$ · $48 \div 6 = 8$