The Great Pumpkin Patch Caper

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

Detective: _____ **Date:** _____

Someone sneaked into the Spooksville Pumpkin Patch and swiped the giant Golden Pumpkin right before the Halloween contest! Search the patch for clues to clear the innocent villagers and unmask the culprit.

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 Thief is _____

Possible suspects

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

NAME	COSTUME	GADGET	DOMINANT HAND	HAIR COLOR	WEAKNESS
Autumn Auggie	Skeleton Suit	Glow Lantern	Left Handed	Purple Hair	Fresh Garlic
Broomstick Betty	Werewolf Mask	Spider Launcher	Right Handed	Green Hair	Fresh Garlic
Moonlit Molly	Vampire Cloak	Glow Lantern	Right Handed	Green Hair	Fresh Garlic
Bones Barnaby	Vampire Cloak	Glow Slime	Left Handed	Purple Hair	Fresh Garlic
Creepy Carl	Werewolf Mask	Bat Drone	Left Handed	Purple Hair	Bright Flashlight
Trickster Tim	Witch Costume	Fog Machine	Right Handed	Purple Hair	Sea Salt
Jack Lantern	Witch Costume	Spider Launcher	Right Handed	Purple Hair	Bright Flashlight
Harvest Hannah	Mummy Wraps	Glow Lantern	Right Handed	Orange Hair	Sea Salt
Salem Cat	Mummy Wraps	Bat Drone	Left Handed	Orange Hair	Fresh Garlic
Phantom Penny	Vampire Cloak	Fog Machine	Left Handed	Green Hair	Bright Flashlight
Cobweb Cody	Vampire Cloak	Bat Drone	Right Handed	Purple Hair	Fresh Garlic
Candy Corn	Vampire Cloak	Spider Launcher	Right Handed	Purple Hair	Sea Salt
Goblin Gabe	Vampire Cloak	Glow Lantern	Left Handed	Purple Hair	Bright Flashlight
Mystic May	Vampire Cloak	Spider Launcher	Right Handed	Orange Hair	Fresh Garlic
Spooky Sam	Witch Costume	Spider Launcher	Right Handed	Orange Hair	Bright Flashlight
Haunted Harry	Witch Costume	Fog Machine	Left Handed	Purple Hair	Fresh Garlic
Frank N Stein	Mummy Wraps	Bat Drone	Left Handed	Purple Hair	Fresh Garlic
Treat Teresa	Skeleton Suit	Fog Machine	Right Handed	Purple Hair	Fresh Garlic
Ghoulish Gwen	Witch Costume	Bat Drone	Right Handed	Orange Hair	Sea Salt
Cider Chris	Skeleton Suit	Fog Machine	Left Handed	Purple Hair	Fresh Garlic
Casper Ghost	Witch Costume	Bat Drone	Left Handed	Purple Hair	Sea Salt

make your own at mathcrackers.com

CLUE 1 Multiplication facts (1-12)

To count all the glowing pumpkin rows in the patch, you organize the clues into equal groups.

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

T																			
15	99	32	20	11	54	54	48	11	27	70	3	32	56	27	3	15			

25	56	32	9	54	3	14	56	54	11	30	32

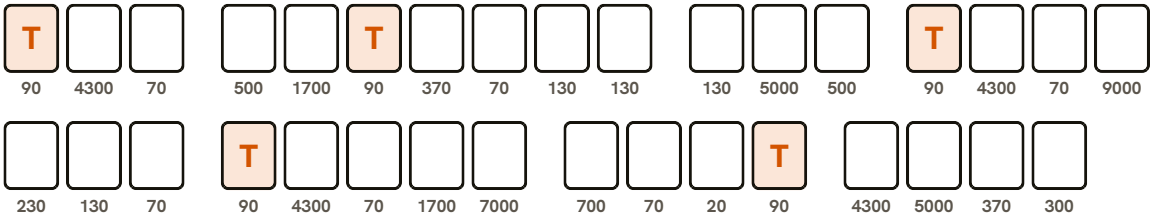
3 × 5 = ☐ → T	2 × 10 = ☐ → V	4 × 8 = ☐ → E	
10 × 7 = ☐ → D	7 × 2 = ☐ → W	9 × 3 = ☐ → N	8 × 7 = ☐ → S
1 × 3 = ☐ → O	8 × 6 = ☐ → A	9 × 11 = ☐ → H	
1 × 11 = ☐ → I	1 × 9 = ☐ → G	6 × 9 = ☐ → L	5 × 5 = ☐ → U
6 × 5 = ☐ → M			

Scratch space:

CLUE 2 Rounding

The spooky radar sensor gives an approximate reading, so you round to the nearest ten.

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



Round 86 to the nearest ten ☐ → T

Round 256 to the nearest hundred ☐ → D

Round 4,321 to the nearest hundred ☐ → H

Round 8,947 to the nearest thousand ☐ → M

Round 492 to the nearest hundred ☐ → W

Round 69 to the nearest ten ☐ → E

Round 4,715 to the nearest thousand ☐ → A

Round 20 to the nearest ten ☐ → F

Round 7,400 to the nearest thousand ☐ → R

Round 372 to the nearest ten ☐ → N

Round 126 to the nearest ten ☐ → S

Round 1,746 to the nearest hundred ☐ → I

Round 696 to the nearest hundred ☐ → L

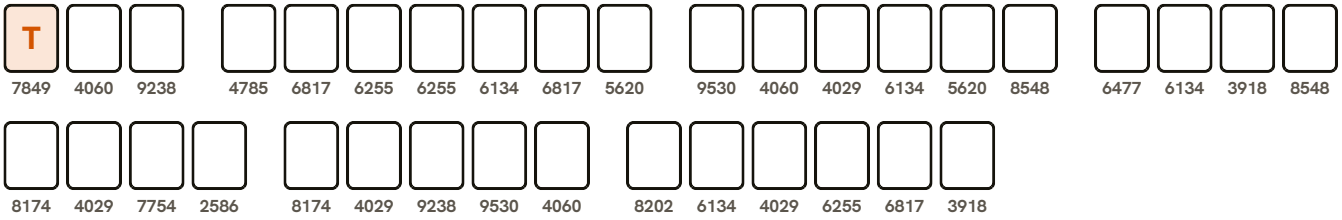
Round 230 to the nearest ten ☐ → U

Scratch space:

CLUE 3 Addition

You tally up all the trick-or-treat candy wrappers found near the scene.

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



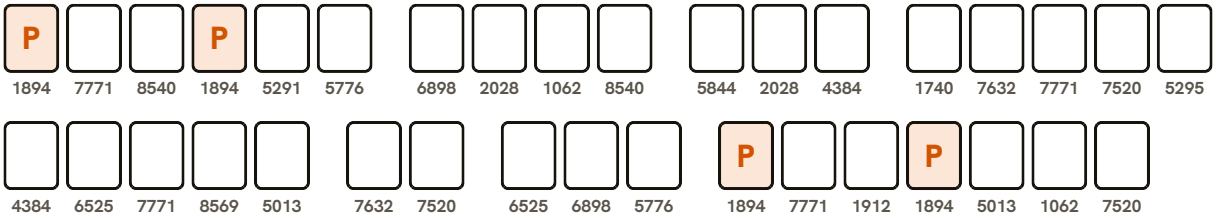
4590 + 3259 = ☐ → T	2642 + 2143 = ☐ → V	3301 + 2954 = ☐ → L
2866 + 6664 = ☐ → S	2282 + 3852 = ☐ → A	2605 + 4212 = ☐ → I
2040 + 1878 = ☐ → C	4803 + 3399 = ☐ → G	3372 + 2248 = ☐ → N
2550 + 5624 = ☐ → F	5980 + 2568 = ☐ → K	3213 + 3264 = ☐ → B
4914 + 2840 = ☐ → O	2467 + 1562 = ☐ → R	5319 + 3919 = ☐ → E
1292 + 1294 = ☐ → M	1946 + 2114 = ☐ → H	

Scratch space:

CLUE 4 Subtraction

You compare the total number of carved pumpkins to find how many are missing.

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



5577 - 3683 = ☐ → P

9683 - 2785 = ☐ → H

10178 - 3653 = ☐ → T

8445 - 3150 = ☐ → D

5742 - 451 = ☐ → L

8671 - 131 = ☐ → R

1743 - 681 = ☐ → I

8827 - 1056 = ☐ → U

9480 - 4467 = ☐ → K

9058 - 4674 = ☐ → S

10900 - 3380 = ☐ → N

9760 - 3916 = ☐ → W

4488 - 2576 = ☐ → M

3281 - 1541 = ☐ → F

6923 - 4895 = ☐ → A

8789 - 1157 = ☐ → O

9150 - 3374 = ☐ → E

11581 - 3012 = ☐ → C

Scratch space:

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

You share the evidence cards equally among the detective team to spot the final clue.

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:

6 ÷ 1 = ☐ | 6 ÷ 2 = ☐ | 11 ÷ 1 = ☐ | 36 ÷ 9 = ☐ | 40 ÷ 8 = ☐

96 ÷ 12 = ☐ | 14 ÷ 7 = ☐ | 9 ÷ 9 = ☐ | 63 ÷ 9 = ☐ | 99 ÷ 11 = ☐

20 ÷ 2 = ☐

Step 2 - cross out the sentence with each answer:

1. The villain wore a vampire cloak, then swung a glowing lantern.
2. The villain wore a werewolf mask, then flew a toy bat drone.
3. The villain wore mummy wraps, then flew a toy bat drone.
4. The villain wore a witch costume, then launched plastic spiders.
5. The villain wore mummy wraps, then swung a glowing lantern.
6. The villain wore a skeleton suit, then swung a glowing lantern.
7. The villain wore a witch costume, then flew a toy bat drone.
8. The villain wore a witch costume, then shot sticky glow slime.
9. The villain wore mummy wraps, then launched plastic spiders.
10. The villain wore mummy wraps, then shot sticky glow slime.
11. The villain wore a skeleton suit, then pumped thick spooky fog.
12. The villain wore a witch costume, then pumped thick spooky fog.

TEACHER / PARENT

Answer Key

The Great Pumpkin Patch Caper

Culprit: Haunted Harry

Witch Costume · Fog Machine · Left Handed · Purple Hair · Fresh Garlic

Trail: Start 21 → Clue 1 20 → Clue 2 9 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE VILLAIN DOES NOT USE GLOW SLIME"

3 × 5 = 15 (T) · 2 × 10 = 20 (V) · 4 × 8 = 32 (E) · 10 × 7 = 70 (D) · 7 × 2 = 14 (W) · 9 × 3 = 27 (N) · 8 × 7 = 56 (S) · 1 × 3 = 3 (O) · 8 × 6 = 48 (A) · 9 × 11 = 99 (H) · 1 × 11 = 11 (I) · 1 × 9 = 9 (G) · 6 × 9 = 54 (L) · 5 × 5 = 25 (U) · 6 × 5 = 30 (M)

Clue 2 (Rounding): "THE WITNESS SAW THEM USE THEIR LEFT HAND"

Round 86 to the nearest ten = 90 (T) · Round 256 to the nearest hundred = 300 (D) · Round 4,321 to the nearest hundred = 4300 (H) · Round 8,947 to the nearest thousand = 9000 (M) · Round 492 to the nearest hundred = 500 (W) · Round 69 to the nearest ten = 70 (E) · Round 4,715 to the nearest thousand = 5000 (A) · Round 20 to the nearest ten = 20 (F) · Round 7,400 to the nearest thousand = 7000 (R) · Round 372 to the nearest ten = 370 (N) · Round 126 to the nearest ten = 130 (S) · Round 1,746 to the nearest hundred = 1700 (I) · Round 696 to the nearest hundred = 700 (L) · Round 230 to the nearest ten = 230 (U)

Clue 3 (Addition): "THE VILLAIN SHRANK BACK FROM FRESH GARLIC"

4590 + 3259 = 7849 (T) · 2642 + 2143 = 4785 (V) · 3301 + 2954 = 6255 (L) · 2866 + 6664 = 9530 (S) · 2282 + 3852 = 6134 (A) · 2605 + 4212 = 6817 (I) · 2040 + 1878 = 3918 (C) · 4803 + 3399 = 8202 (G) · 3372 + 2248 = 5620 (N) · 2550 + 5624 = 8174 (F) · 5980 + 2568 = 8548 (K) · 3213 + 3264 = 6477 (B) · 4914 + 2840 = 7754 (O) · 2467 + 1562 = 4029 (R) · 5319 + 3919 = 9238 (E) · 1292 + 1294 = 2586 (M) · 1946 + 2114 = 4060 (H)

Clue 4 (Subtraction): "PURPLE HAIR WAS FOUND STUCK ON THE PUMPKIN"

5577 - 3683 = 1894 (P) · 9683 - 2785 = 6898 (H) · 10178 - 3653 = 6525 (T) · 8445 - 3150 = 5295 (D) · 5742 - 451 = 5291 (L) · 8671 - 131 = 8540 (R) · 1743 - 681 = 1062 (I) · 8827 - 1056 = 7771 (U) · 9480 - 4467 = 5013 (K) · 9058 - 4674 = 4384 (S) · 10900 - 3380 = 7520 (N) · 9760 - 3916 = 5844 (W) · 4488 - 2576 = 1912 (M) · 3281 - 1541 = 1740 (F) · 6923 - 4895 = 2028 (A) · 8789 - 1157 = 7632 (O) · 9150 - 3374 = 5776 (E) · 11581 - 3012 = 8569 (C)

Clue 5 (Division facts (1-12)): surviving statement is box 12 → Haunted Harry

6 ÷ 1 = 6 · 6 ÷ 2 = 3 · 11 ÷ 1 = 11 · 36 ÷ 9 = 4 · 40 ÷ 8 = 5 · 96 ÷ 12 = 8 · 14 ÷ 7 = 2 · 9 ÷ 9 = 1 · 63 ÷ 9 = 7 · 99 ÷ 11 = 9 · 20 ÷ 2 = 10