



The Great Pumpkin Patch Caper

Grade 5 math · Addition, Subtraction, Multiplication, Fractions of a number, Division · Reading level grades 3-4

Detective: _____ **Date:** _____

The giant, prize-winning pumpkin has vanished from the patch! All that remains are some squashed vines and a chilly autumn breeze. We must track down the culprit before the spooky Halloween Festival begins tonight!

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 Bandit is _____

Possible suspects

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

NAME	TRICK POWER	FALL GEAR	CARVING STYLE	AUTUMN HEADWEAR	SECRET OBSTACLE
Barnaby Bale	Spooky Shadow Warp	Corn Husk Cape	Carries a left handed carving knife	Black pointed hood	Allergic to cinnamon
Autumn Avery	Crows Call	Hay Bale Armor	Carries a left handed carving knife	Black pointed hood	Stops to eat pumpkin pie
Molly Moon	Spooky Shadow Warp	Haunted Lantern	Carries a left handed carving knife	Orange stem hat	Allergic to cinnamon
Paula Pipsqueak	Pumpkin Blast	Hay Bale Armor	Carries a left handed carving knife	Orange stem hat	Stops to eat pumpkin pie
Tammy Treat	Pumpkin Blast	Haunted Lantern	Carries a right handed carving knife	Green leaf beanie	Stops to eat pumpkin pie
Oliver Owl	Crows Call	Witch Broom	Carries a right handed carving knife	Orange stem hat	Allergic to cinnamon
Sammy Squash	Crows Call	Corn Husk Cape	Carries a left handed carving knife	Orange stem hat	Stops to eat pumpkin pie
Sally Scarecrow	Spooky Shadow Warp	Haunted Lantern	Carries a left handed carving knife	Black pointed hood	Allergic to cinnamon
Peter Patch	Wind Gust	Candied Apple Shield	Carries a left handed carving knife	Orange stem hat	Allergic to cinnamon
Wendy Witch	Wind Gust	Haunted Lantern	Carries a right handed carving knife	Orange stem hat	Allergic to cinnamon
Charlie Cider	Pumpkin Blast	Candied Apple Shield	Carries a left handed carving knife	Orange stem hat	Allergic to cinnamon
Jack Lantern	Spooky Shadow Warp	Corn Husk Cape	Carries a left handed carving knife	Orange stem hat	Allergic to cinnamon
Ghostly Gabe	Spooky Shadow Warp	Haunted Lantern	Carries a left handed carving knife	Green leaf beanie	Scared of scarecrows
Hunter Harvest	Wind Gust	Witch Broom	Carries a left handed carving knife	Green leaf beanie	Stops to eat pumpkin pie
Billy Boo	Pumpkin Blast	Haunted Lantern	Carries a right handed carving knife	Orange stem hat	Scared of scarecrows
Cora Corn	Pumpkin Blast	Candied Apple Shield	Carries a right handed carving knife	Green leaf beanie	Scared of scarecrows
Hazel Nut	Vine Grab	Hay Bale Armor	Carries a left handed carving knife	Green leaf beanie	Scared of scarecrows
Bobby Bat	Pumpkin Blast	Haunted Lantern	Carries a left handed carving knife	Orange stem hat	Allergic to cinnamon
Pippa Pumpkin	Wind Gust	Corn Husk Cape	Carries a right handed carving knife	Green leaf beanie	Stops to eat pumpkin pie
Rusty Maple	Spooky Shadow Warp	Witch Broom	Carries a right handed carving knife	Green leaf beanie	Allergic to cinnamon
Penny Pie	Wind Gust	Candied Apple Shield	Carries a right handed carving knife	Green leaf beanie	Allergic to cinnamon

CLUE 1 Addition

To track the bandit, we tallied the squashed pumpkins in each row of the patch. Adding up the broken gourds revealed a clue.

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

T			T											T				
2840	8607	4884	2840	8607	4859	4884	4694	7200	9042	4884	2148	8041	9042	2840	6522	4884	7734	5567
7734	4846	9042	5567	8041	8607	6504	2148	9336	4846	7734	9672	4884						

$1208 + 1632 = \square \rightarrow \text{T}$	$3632 + 4409 = \square \rightarrow \text{N}$	$3796 + 4811 = \square \rightarrow \text{H}$
$4078 + 5258 = \square \rightarrow \text{K}$	$2516 + 4006 = \square \rightarrow \text{W}$	$4659 + 4383 = \square \rightarrow \text{O}$
$6116 + 3556 = \square \rightarrow \text{P}$	$2552 + 3015 = \square \rightarrow \text{R}$	$1469 + 3377 = \square \rightarrow \text{C}$
$4212 + 2292 = \square \rightarrow \text{U}$	$4402 + 2798 = \square \rightarrow \text{D}$	$2341 + 2353 = \square \rightarrow \text{F}$
$2663 + 2221 = \square \rightarrow \text{E}$	$1075 + 1073 = \square \rightarrow \text{S}$	$4881 + 2853 = \square \rightarrow \text{A}$
$1842 + 3017 = \square \rightarrow \text{I}$		

Scratch space:

CLUE 2

The thief snatched some apples from the basket. We subtracted the remaining apples from the starting total to find how many they took.

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

The diagram illustrates a sequence of numbers arranged in two rows. The top row contains 18 boxes, and the bottom row contains 14 boxes. Each box is labeled with a number below it. Some boxes are shaded orange and contain the letter 'T', indicating they are 'true' or 'active'.

Top Row:

- Box 1: Shaded orange, contains 'T'. Number: 3380
- Box 2: White. Number: 7789
- Box 3: White. Number: 8947
- Box 4: White. Number: 8198
- Box 5: White. Number: 2464
- Box 6: White. Number: 8198
- Box 7: White. Number: 4748
- Box 8: White. Number: 8947
- Box 9: White. Number: 1613
- Box 10: Shaded orange, contains 'T'. Number: 3380
- Box 11: White. Number: 1613
- Box 12: White. Number: 8687
- Box 13: White. Number: 2207
- Box 14: White. Number: 4258
- Box 15: White. Number: 8947
- Box 16: White. Number: 8198
- Box 17: White. Number: 5739
- Box 18: White. Number: 6579
- Box 19: Shaded orange, contains 'T'. Number: 3380
- Box 20: White. Number: 7789

Bottom Row:

- Box 1: Shaded orange, contains 'T'. Number: 3380
- Box 2: White. Number: 7789
- Box 3: White. Number: 8947
- Box 4: White. Number: 6579
- Box 5: White. Number: 2207
- Box 6: White. Number: 6310
- Box 7: White. Number: 8947
- Box 8: White. Number: 6209
- Box 9: Shaded orange, contains 'T'. Number: 3380
- Box 10: White. Number: 7789
- Box 11: White. Number: 8687
- Box 12: White. Number: 5180
- Box 13: White. Number: 5149

$$7990 - 4610 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$8483 - 3735 = \boxed{} \rightarrow \boxed{\text{P}}$$

$$11312 - 3523 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$8797 - 3058 = \boxed{} \rightarrow \boxed{\text{W}}$$

11107 - 2420 = → **A**

$7884 - 2735 = \boxed{} \rightarrow \boxed{\text{D}}$

$$9641 - 3331 = \boxed{} \rightarrow \boxed{\text{L}}$$

$$12577 - 4379 = \boxed{} \rightarrow \boxed{\mathbf{S}}$$

$$4425 - 167 = \boxed{} \rightarrow \mathbf{V}$$

$$4633 - 3020 = \boxed{} \rightarrow \boxed{\text{C}}$$

$$7034 - 4570 = \boxed{} \rightarrow \boxed{\text{U}}$$

10111 - 1164 = → **E**

$$6261 - 1081 = \boxed{} \rightarrow \boxed{\text{N}}$$

$$8089 - 1510 = \boxed{} \rightarrow \boxed{\text{I}}$$

$$3263 - 1056 = \boxed{} \rightarrow \boxed{\text{R}}$$

$10638 - 4429 = \boxed{} \rightarrow \boxed{\text{F}}$

Scratch space:

CLUE 3
Multiplication facts (1-12)

We counted the rows of corn mazes. Multiplying the rows by the number of stalks in each row led us to a dropped clue.

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

T																	
63	15	14	84	60	14	14	144	100	60	30	64	100	10	10	88	100	60

		T											
15	88	63	14	84	16	100	60	60	88	21	35	60	

$9 \times 7 = \square \rightarrow \boxed{\text{T}}$

$5 \times 12 = \square \rightarrow \boxed{\text{N}}$

$2 \times 7 = \square \rightarrow \boxed{\text{E}}$

$10 \times 10 = \square \rightarrow \boxed{\text{I}}$

$7 \times 5 = \square \rightarrow \boxed{\text{O}}$

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

$5 \times 3 = \square \rightarrow \boxed{\text{H}}$

$12 \times 7 = \square \rightarrow \boxed{\text{S}}$

$2 \times 5 = \square \rightarrow \boxed{\text{L}}$

$8 \times 11 = \square \rightarrow \boxed{\text{A}}$

$12 \times 12 = \square \rightarrow \boxed{\text{Z}}$

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

$8 \times 2 = \square \rightarrow \boxed{\text{C}}$

$6 \times 5 = \square \rightarrow \boxed{\text{G}}$

Scratch space:

CLUE 4
Fractions of a number

The bandit dropped some candy corn. We calculated exactly half of the dropped pile to figure out where they headed next.

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

W																			
40	27	18	17	32	30	21	9	30	17	39	9	30	8	27	7	5	27	10	
37	9	5	9	5	5	37	27	26	9	5	2	37							

$2/3 \text{ of } 60 = \square \rightarrow \text{W}$

$1/2 \text{ of } 10 = \square \rightarrow \text{T}$

$3/4 \text{ of } 52 = \square \rightarrow \text{R}$

$5/10 \text{ of } 16 = \square \rightarrow \text{G}$

$5/10 \text{ of } 64 = \square \rightarrow \text{U}$

$1/10 \text{ of } 70 = \square \rightarrow \text{S}$

$2/4 \text{ of } 60 = \square \rightarrow \text{N}$

$5/10 \text{ of } 18 = \square \rightarrow \text{A}$

$3/6 \text{ of } 36 = \square \rightarrow \text{F}$

$3/6 \text{ of } 20 = \square \rightarrow \text{M}$

$1/2 \text{ of } 74 = \square \rightarrow \text{H}$

$1/10 \text{ of } 170 = \square \rightarrow \text{O}$

$4/10 \text{ of } 65 = \square \rightarrow \text{P}$

$3/6 \text{ of } 42 = \square \rightarrow \text{D}$

$1/4 \text{ of } 108 = \square \rightarrow \text{E}$

$1/3 \text{ of } 6 = \square \rightarrow \text{C}$

Scratch space:

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

We shared the remaining pie slices equally among our team. Dividing the slices gave us the final hint we needed.

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:

$18 \div 3 = \boxed{}$

$14 \div 2 = \boxed{}$

$27 \div 3 = \boxed{}$

$30 \div 6 = \boxed{}$

$100 \div 10 = \boxed{}$

$40 \div 10 = \boxed{}$

$44 \div 4 = \boxed{}$

$108 \div 9 = \boxed{}$

$80 \div 10 = \boxed{}$

$18 \div 9 = \boxed{}$

$36 \div 12 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain scared away the farm crows, then stole a warm mug of apple cider.
2. The villain smashed three small gourds, then left a trail of candy wrappers.
3. The villain smashed three small gourds, then howled like a graveyard wolf.
4. The villain smashed three small gourds, then dropped a bunch of dry leaves.
5. The villain rolled pumpkins down the hill, then dropped a bunch of dry leaves.
6. The villain smashed three small gourds, then splattered pumpkin seeds everywhere.
7. The villain carved a giant spooky face, then splattered pumpkin seeds everywhere.
8. The villain tangled up the grapevines, then left a trail of candy wrappers.
9. The villain smashed three small gourds, then stole a warm mug of apple cider.
10. The villain carved a giant spooky face, then left a trail of candy wrappers.
11. The villain scared away the farm crows, then left a trail of candy wrappers.
12. The villain carved a giant spooky face, then dropped a bunch of dry leaves.

Answer Key

The Great Pumpkin Patch Caper

Culprit: Molly Moon

Spooky Shadow Warp · Haunted Lantern · Carries a left handed carving knife · Orange stem hat · Allergic to cinnamon

Trail: Start 21 → Clue 1 17 → Clue 2 10 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE THIEF DOES NOT WEAR A CORN HUSK CAPE"

$1208 + 1632 = 2840$ (T) · $3632 + 4409 = 8041$ (N) · $3796 + 4811 = 8607$ (H) · $4078 + 5258 = 9336$ (K) · $2516 + 4006 = 6522$ (W) · $4659 + 4383 = 9042$ (O) · $6116 + 3556 = 9672$ (P) · $2552 + 3015 = 5567$ (R) · $1469 + 3377 = 4846$ (C) · $4212 + 2292 = 6504$ (U) · $4402 + 2798 = 7200$ (D) · $2341 + 2353 = 4694$ (F) · $2663 + 2221 = 4884$ (E) · $1075 + 1073 = 2148$ (S) · $4881 + 2853 = 7734$ (A) · $1842 + 3017 = 4859$ (I)

Clue 2 (Subtraction): "THE SUSPECT CARVES WITH THEIR LEFT HAND"

$7990 - 4610 = 3380$ (T) · $8483 - 3735 = 4748$ (P) · $11312 - 3523 = 7789$ (H) · $8797 - 3058 = 5739$ (W) · $11107 - 2420 = 8687$ (A) · $7884 - 2735 = 5149$ (D) · $9641 - 3331 = 6310$ (L) · $12577 - 4379 = 8198$ (S) · $4425 - 167 = 4258$ (V) · $4633 - 3020 = 1613$ (C) · $7034 - 4570 = 2464$ (U) · $10111 - 1164 = 8947$ (E) · $6261 - 1081 = 5180$ (N) · $8089 - 1510 = 6579$ (I) · $3263 - 1056 = 2207$ (R) · $10638 - 4429 = 6209$ (F)

Clue 3 (Multiplication facts (1-12)): "THE SNEEZING VILLAIN HATES CINNAMON"

$9 \times 7 = 63$ (T) · $5 \times 12 = 60$ (N) · $2 \times 7 = 14$ (E) · $10 \times 10 = 100$ (I) · $7 \times 5 = 35$ (O) · $7 \times 3 = 21$ (M) · $5 \times 3 = 15$ (H) · $12 \times 7 = 84$ (S) · $2 \times 5 = 10$ (L) · $8 \times 11 = 88$ (A) · $12 \times 12 = 144$ (Z) · $8 \times 8 = 64$ (V) · $8 \times 2 = 16$ (C) · $6 \times 5 = 30$ (G)

Clue 4 (Fractions of a number): "WE FOUND AN ORANGE STEM HAT AT THE PATCH"

$\frac{2}{3}$ of 60 = 40 (W) · $\frac{1}{2}$ of 10 = 5 (T) · $\frac{3}{4}$ of 52 = 39 (R) · $\frac{5}{10}$ of 16 = 8 (G) · $\frac{5}{10}$ of 64 = 32 (U) · $\frac{1}{10}$ of 70 = 7 (S) · $\frac{2}{4}$ of 60 = 30 (N) · $\frac{5}{10}$ of 18 = 9 (A) · $\frac{3}{6}$ of 36 = 18 (F) · $\frac{3}{6}$ of 20 = 10 (M) · $\frac{1}{2}$ of 74 = 37 (H) · $\frac{1}{10}$ of 170 = 17 (O) · $\frac{4}{10}$ of 65 = 26 (P) · $\frac{3}{6}$ of 42 = 21 (D) · $\frac{1}{4}$ of 108 = 27 (E) · $\frac{1}{3}$ of 6 = 2 (C)

Clue 5 (Division facts (1-12)): surviving statement is box 1 → Molly Moon

$18 \div 3 = 6$ · $14 \div 2 = 7$ · $27 \div 3 = 9$ · $30 \div 6 = 5$ · $100 \div 10 = 10$ · $40 \div 10 = 4$ · $44 \div 4 = 11$ · $108 \div 9 = 12$ · $80 \div 10 = 8$ · $18 \div 9 = 2$ · $36 \div 12 = 3$