



The Great Pumpkin Patch Caper

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

Detective: _____ Date: _____

Someone snuck into Harvest Hollow Farm right before the Autumn Festival and scrambled the giant prize gourd display! Solve the math clues to figure out who the Pumpkin Prowler is.

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 Prowler is _____

Possible suspects

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

NAME	CARVING TOOL	GOURD GADGET	DOMINANT HAND	HAT STYLE	PATCH SNACK
Farmer Bob	Carving Chisel	Seed Cannon	Right Handed	Baseball Cap	Pumpkin Pie
Harvest Hannah	Carving Chisel	Leaf Blower	Right Handed	Straw Hat	Roasted Seeds
Tractor Tom	Scoop Tool	Leaf Blower	Left Handed	Straw Hat	Cider Donut
Scarlett Scarecrow	Carving Chisel	Seed Cannon	Left Handed	Knit Beanie	Cider Donut
Jack Lantern	Scoop Tool	Pie Thrower	Right Handed	Baseball Cap	Pumpkin Pie
Hayden Hay	Stencil Kit	Leaf Blower	Left Handed	Baseball Cap	Cider Donut
Maize Mae	Wooden Mallet	Vine Lasso	Left Handed	Knit Beanie	Cider Donut
Orson Orange	Mini Saw	Candle Blaster	Left Handed	Knit Beanie	Cider Donut
Gideon Gourd	Wooden Mallet	Pie Thrower	Right Handed	Baseball Cap	Cider Donut
Barnaby Bale	Carving Chisel	Seed Cannon	Left Handed	Straw Hat	Cider Donut
Polly Patch	Carving Chisel	Pie Thrower	Right Handed	Knit Beanie	Cider Donut
Sammy Seed	Stencil Kit	Vine Lasso	Left Handed	Knit Beanie	Cider Donut
Pip Pumpkin	Scoop Tool	Pie Thrower	Left Handed	Knit Beanie	Cider Donut
Autumn Amber	Carving Chisel	Candle Blaster	Right Handed	Knit Beanie	Roasted Seeds
Gourdie Gary	Mini Saw	Pie Thrower	Left Handed	Knit Beanie	Roasted Seeds
Spiced Spencer	Scoop Tool	Candle Blaster	Right Handed	Baseball Cap	Cider Donut
Hazel Harvest	Wooden Mallet	Vine Lasso	Right Handed	Baseball Cap	Pumpkin Pie
Fiona Field	Mini Saw	Seed Cannon	Left Handed	Straw Hat	Cider Donut
Sally Squash	Mini Saw	Pie Thrower	Right Handed	Knit Beanie	Pumpkin Pie
Pippa Pie	Carving Chisel	Candle Blaster	Right Handed	Straw Hat	Roasted Seeds
Cider Carl	Wooden Mallet	Seed Cannon	Left Handed	Baseball Cap	Pumpkin Pie

CLUE 1
Multiplication facts (1-12)

To read the first clue, multiply the carved pumpkins arranged in equal rows across the patch.

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

T																			
33	4	24	50	96	24	88	100	66	90	32	8	121	14	24	32	28	8	24	50
		T													T				
96	8	33	11	50	24	45	88	96	28	14	24	48	14	88	50	33	24	32	

$11 \times 3 =$

→ T

$7 \times 2 =$

→ L

$4 \times 7 =$

→ D

$8 \times 12 =$

→ N

$8 \times 11 =$

→ A

$6 \times 8 =$

→ B

$6 \times 4 =$

→ E

$5 \times 9 =$

→ C

$11 \times 11 =$

→ W

$1 \times 11 =$

→ U

$8 \times 1 =$

→ O

$10 \times 10 =$

→ K

$6 \times 11 =$

→ Y

$8 \times 4 =$

→ R

$10 \times 9 =$

→ P

$10 \times 5 =$

→ S

$1 \times 4 =$

→ H

Scratch space:

CLUE 2 Rounding

The pumpkin weight scale rounds the total pounds, giving you the second clue.

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

T																		
170	1300	5000	30	110	5000	900	200	50	3700	290	1100	130	4300	5000	290	20	30	

			T						
4300	5000	2900	170	1300	900	110	3000	5000	3000

Round 174 to the nearest ten → **T**

Round 899 to the nearest hundred → **A**

Round 3,153 to the nearest thousand → **D**

Round 4,259 to the nearest hundred → **L**

Round 46 to the nearest ten → **Y**

Round 23 to the nearest ten → **I**

Round 113 to the nearest ten → **N**

Round 4,789 to the nearest thousand → **E**

Round 181 to the nearest hundred → **K**

Round 1,315 to the nearest hundred → **H**

Round 289 to the nearest ten → **R**

Round 32 to the nearest ten → **S**

Round 133 to the nearest ten → **W**

Round 1,055 to the nearest hundred → **O**

Round 2,887 to the nearest hundred → **F**

Round 3,675 to the nearest hundred → **P**

Scratch space:

CLUE 3 Addition

Add up all the harvested gourds collected in the barn to uncover the third clue.

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

T														T						
8358	3796	4025	5132	2402	6758	2858	7522	4025	2402	2858	8855	2629	2629	8358	6758	4630	6427	4025	2603	

		T										T		
2858	7936	8358	3796	4630	7936	2603	4025	2402	2603	6758	4165	6064	8358	2629

5148 + 3210 = → T	1146 + 1712 = → W	2612 + 1553 = → N
2643 + 3784 = → K	2827 + 2305 = → P	3833 + 2231 = → U
1576 + 826 = → R	2704 + 4054 = → O	2500 + 5022 = → L
1894 + 2131 = → E	1695 + 908 = → D	1989 + 1807 = → H
1205 + 1424 = → S	2928 + 5927 = → A	2947 + 1683 = → C
2804 + 5132 = → I		

Scratch space:

CLUE 4

Subtraction

Subtract the squashes taken by the prowler from the storage pile to get the fourth clue.

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

T					T											
3926	7631	3952	1781	6453	3926	6988	3952	3394	3394	7722	4016	6354	6988	7593	4586	

			T								T					
1058	6988	6453	3926	1040	3952	4586	6988	6453	3952	4586	3926	3394	6629	3952	6988	3952

$6662 - 2736 = \square \rightarrow \text{**T**}$

$7647 - 3695 = \square \rightarrow \text{**E**}$

$8733 - 1745 = \square \rightarrow \text{**N**}$

$5924 - 4884 = \square \rightarrow \text{**B**}$

$4974 - 388 = \square \rightarrow \text{**A**}$

$9658 - 3029 = \square \rightarrow \text{**C**}$

$11130 - 3499 = \square \rightarrow \text{**H**}$

$1885 - 827 = \square \rightarrow \text{**K**}$

$11160 - 3438 = \square \rightarrow \text{**F**}$

$6022 - 2006 = \square \rightarrow \text{**O**}$

$12275 - 4682 = \square \rightarrow \text{**D**}$

$6949 - 496 = \square \rightarrow \text{**I**}$

$10017 - 3663 = \square \rightarrow \text{**U**}$

$3475 - 81 = \square \rightarrow \text{**S**}$

$5990 - 4209 = \square \rightarrow \text{**W**}$

Scratch space:

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

Divide the remaining pumpkin pies equally among the harvest festival judges for 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:

$96 \div 8 = \boxed{}$

$99 \div 11 = \boxed{}$

$2 \div 2 = \boxed{}$

$16 \div 4 = \boxed{}$

$30 \div 3 = \boxed{}$

$18 \div 6 = \boxed{}$

$16 \div 2 = \boxed{}$

$66 \div 6 = \boxed{}$

$60 \div 10 = \boxed{}$

$16 \div 8 = \boxed{}$

$35 \div 5 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain scraped out all the pulp, then swung away on a vine lasso.
2. The villain hollowed out the champion pumpkin, then zapped the display with candle fire.
3. The villain carved the prize pumpkin, then zapped the display with candle fire.
4. The villain carved the prize pumpkin, then blasted pumpkin seeds everywhere.
5. The villain etched a spooky face, then swung away on a vine lasso.
6. The villain hollowed out the champion pumpkin, then blew leaves across the farm.
7. The villain hollowed out the champion pumpkin, then swung away on a vine lasso.
8. The villain etched a spooky face, then blew leaves across the farm.
9. The villain carved the prize pumpkin, then launched warm pumpkin pies.
10. The villain sliced the mega gourd, then blew leaves across the farm.
11. The villain sliced the mega gourd, then zapped the display with candle fire.
12. The villain hollowed out the champion pumpkin, then blasted pumpkin seeds everywhere.

Answer Key

The Great Pumpkin Patch Caper

Culprit: Maize Mae

Wooden Mallet · Vine Lasso · Left Handed · Knit Beanie · Cider Donut

Trail: Start 21 → Clue 1 17 → Clue 2 10 → Clue 3 8 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE SNEAKY PROWLER DOES NOT USE CANDLE BLASTER"

$11 \times 3 = 33$ (T) · $7 \times 2 = 14$ (L) · $4 \times 7 = 28$ (D) · $8 \times 12 = 96$ (N) · $8 \times 11 = 88$ (A) · $6 \times 8 = 48$ (B) · $6 \times 4 = 24$ (E) · $5 \times 9 = 45$ (C) · $11 \times 11 = 121$ (W) · $1 \times 11 = 11$ (U) · $8 \times 1 = 8$ (O) · $10 \times 10 = 100$ (K) · $6 \times 11 = 66$ (Y) · $8 \times 4 = 32$ (R) · $10 \times 9 = 90$ (P) · $10 \times 5 = 50$ (S) · $1 \times 4 = 4$ (H)

Clue 2 (Rounding): "THE SNEAKY PROWLER IS LEFT HANDED"

Round 174 to the nearest ten = 170 (T) · Round 899 to the nearest hundred = 900 (A) · Round 3,153 to the nearest thousand = 3000 (D) · Round 4,259 to the nearest hundred = 4300 (L) · Round 46 to the nearest ten = 50 (Y) · Round 23 to the nearest ten = 20 (I) · Round 113 to the nearest ten = 110 (N) · Round 4,789 to the nearest thousand = 5000 (E) · Round 181 to the nearest hundred = 200 (K) · Round 1,315 to the nearest hundred = 1300 (H) · Round 289 to the nearest ten = 290 (R) · Round 32 to the nearest ten = 30 (S) · Round 133 to the nearest ten = 130 (W) · Round 1,055 to the nearest hundred = 1100 (O) · Round 2,887 to the nearest hundred = 2900 (F) · Round 3,675 to the nearest hundred = 3700 (P)

Clue 3 (Addition): "THE PROWLER WAS STOCKED WITH CIDER DONUTS"

$5148 + 3210 = 8358$ (T) · $1146 + 1712 = 2858$ (W) · $2612 + 1553 = 4165$ (N) · $2643 + 3784 = 6427$ (K) · $2827 + 2305 = 5132$ (P) · $3833 + 2231 = 6064$ (U) · $1576 + 826 = 2402$ (R) · $2704 + 4054 = 6758$ (O) · $2500 + 5022 = 7522$ (L) · $1894 + 2131 = 4025$ (E) · $1695 + 908 = 2603$ (D) · $1989 + 1807 = 3796$ (H) · $1205 + 1424 = 2629$ (S) · $2928 + 5927 = 8855$ (A) · $2947 + 1683 = 4630$ (C) · $2804 + 5132 = 7936$ (I)

Clue 4 (Subtraction): "THE WITNESS FOUND A KNIT BEANIE AT SCENE"

$6662 - 2736 = 3926$ (T) · $7647 - 3695 = 3952$ (E) · $8733 - 1745 = 6988$ (N) · $5924 - 4884 = 1040$ (B) · $4974 - 388 = 4586$ (A) · $9658 - 3029 = 6629$ (C) · $11130 - 3499 = 7631$ (H) · $1885 - 827 = 1058$ (K) · $11160 - 3438 = 7722$ (F) · $6022 - 2006 = 4016$ (O) · $12275 - 4682 = 7593$ (D) · $6949 - 496 = 6453$ (I) · $10017 - 3663 = 6354$ (U) · $3475 - 81 = 3394$ (S) · $5990 - 4209 = 1781$ (W)

Clue 5 (Division facts (1-12)): surviving statement is box 5 → Maize Mae

$96 \div 8 = 12$ · $99 \div 11 = 9$ · $2 \div 2 = 1$ · $16 \div 4 = 4$ · $30 \div 3 = 10$ · $18 \div 6 = 3$ · $16 \div 2 = 8$ · $66 \div 6 = 11$ · $60 \div 10 = 6$ · $16 \div 8 = 2$ · $35 \div 5 = 7$