The Great Pumpkin Patch Prank

Grade 5 math · Place value, Multiplication, Rounding, Multi-step word problems, Division · Reading level grades 3-4

Detective: _____ **Date:** _____

Someone snuck into Blackwood Pumpkin Patch on Halloween Eve and swapped the grand prize giant pumpkin with a painted plastic fake! Work through the clues to unmask the pumpkin thief before the festival starts.

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

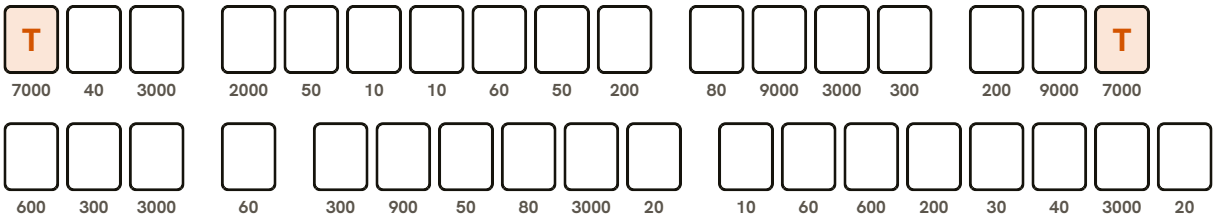
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	SPOOKY SKILL	HALLOWEEN GADGET	DOMINANT HAND	WIG HAIR COLOR	SECRET FEAR
Vampire Vance	Pumpkin Bombing	Glow Wand	Right Handed	Neon Green Wig	Bright Flashlight
Phantom Pete	Shadow Walking	Candy Magnet	Left Handed	Neon Green Wig	Bright Flashlight
Mystic Max	Bat Swarming	Spider Launcher	Left Handed	Orange Yarn Hair	Salt Water Spray
Witchy Wendy	Pumpkin Bombing	Glow Wand	Left Handed	Orange Yarn Hair	Salt Water Spray
Frankie Stein	Bat Swarming	Spider Launcher	Left Handed	Purple Spider Hair	Salt Water Spray
Creepy Chris	Shadow Walking	Pumpkin Helmet	Right Handed	Neon Green Wig	Bright Flashlight
Treat Tracey	Pumpkin Bombing	Candy Magnet	Right Handed	Purple Spider Hair	Salt Water Spray
Ghostly Gabe	Fog Brewing	Candy Magnet	Right Handed	Purple Spider Hair	Loud Squeaky Toy
Spirit Sarah	Bat Swarming	Spider Launcher	Left Handed	Neon Green Wig	Salt Water Spray
Jack O Lantern	Shadow Walking	Spider Launcher	Left Handed	Purple Spider Hair	Loud Squeaky Toy
Goblin Greg	Shadow Walking	Candy Magnet	Left Handed	Purple Spider Hair	Loud Squeaky Toy
Eerie Emma	Fog Brewing	Glow Wand	Left Handed	Neon Green Wig	Salt Water Spray
Cobweb Cole	Fog Brewing	Candy Magnet	Left Handed	Purple Spider Hair	Salt Water Spray
Zombie Zack	Pumpkin Bombing	Pumpkin Helmet	Right Handed	Orange Yarn Hair	Loud Squeaky Toy
Pumpkin Paige	Spellcasting	Pumpkin Helmet	Left Handed	Purple Spider Hair	Salt Water Spray
Haunting Hannah	Spellcasting	Spider Launcher	Left Handed	Neon Green Wig	Salt Water Spray
Mummy Mia	Bat Swarming	Candy Magnet	Left Handed	Purple Spider Hair	Salt Water Spray
Trickster Tim	Pumpkin Bombing	Spider Launcher	Left Handed	Orange Yarn Hair	Salt Water Spray
Shadow Sean	Bat Swarming	Glow Wand	Left Handed	Purple Spider Hair	Salt Water Spray
Howling Holly	Fog Brewing	Pumpkin Helmet	Right Handed	Purple Spider Hair	Loud Squeaky Toy
Spooky Sam	Spellcasting	Boo Megaphone	Left Handed	Orange Yarn Hair	Salt Water Spray

CLUE 1 Place value

> Farmer Fred found a code grid carved into a pumpkin. Check the place value of the digits to reveal the first secret.

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



What is the value of the 7 in 147,311? ☐ → T

What is the value of the 2 in 558,217? ☐ → N

What is the value of the 9 in 32,971? ☐ → P

What is the value of the 8 in 23,283? ☐ → D

What is the value of the 4 in 21,545? ☐ → H

What is the value of the 9 in 29,181? ☐ → O

What is the value of the 2 in 42,374? ☐ → V

What is the value of the 3 in 73,409? ☐ → E

What is the value of the 5 in 98,052? ☐ → I

What is the value of the 3 in 906,327? ☐ → S

What is the value of the 3 in 20,631? ☐ → C

What is the value of the 6 in 11,768? ☐ → A

What is the value of the 2 in 636,620? ☐ → R

What is the value of the 1 in 74,214? ☐ → L

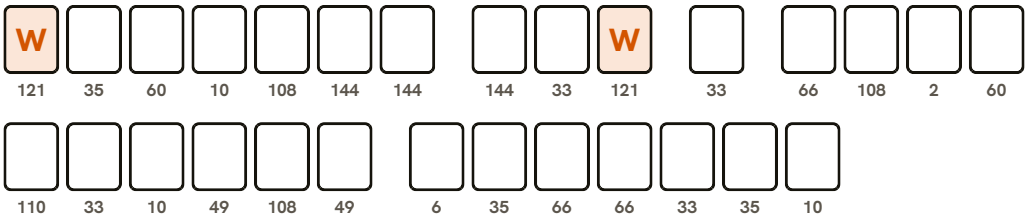
What is the value of the 6 in 43,610? ☐ → U

Scratch space:

CLUE 2 Multiplication facts (1-12)

> The suspect left organized stacks of jack-o-lanterns by the corn maze. Calculate the equal groups to find the next clue.

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



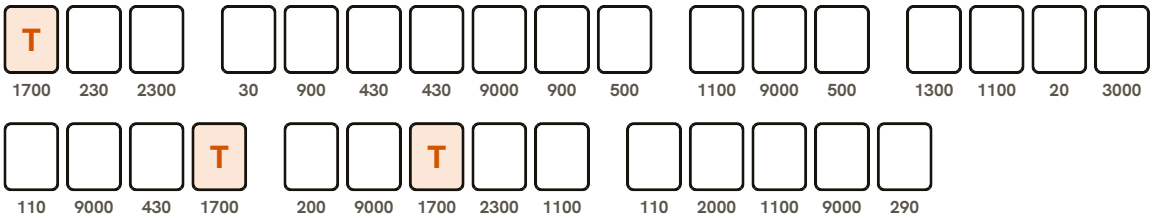
11 × 11 = ☐ → W	7 × 5 = ☐ → I	10 × 6 = ☐ → T
2 × 1 = ☐ → F	7 × 7 = ☐ → D	11 × 10 = ☐ → H
9 × 12 = ☐ → E	12 × 12 = ☐ → S	2 × 3 = ☐ → V
1 × 10 = ☐ → N	3 × 11 = ☐ → A	6 × 11 = ☐ → L

Scratch space:

CLUE 3 Rounding

> The spooky radar screen rounds all magic signals to the nearest thousand. Round the value to unlock the third clue.

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



Round 1,691 to the nearest hundred ☐ → **T**

Round 2,263 to the nearest hundred ☐ → **E**

Round 537 to the nearest hundred ☐ → **N**

Round 891 to the nearest hundred ☐ → **I**

Round 3,288 to the nearest thousand ☐ → **M**

Round 232 to the nearest ten ☐ → **H**

Round 110 to the nearest ten ☐ → **S**

Round 1,055 to the nearest hundred ☐ → **R**

Round 19 to the nearest ten ☐ → **O**

Round 286 to the nearest ten ☐ → **Y**

Round 433 to the nearest ten ☐ → **L**

Round 1,696 to the nearest thousand ☐ → **P**

Round 31 to the nearest ten ☐ → **V**

Round 8,742 to the nearest thousand ☐ → **A**

Round 169 to the nearest hundred ☐ → **W**

Round 1,287 to the nearest hundred ☐ → **F**

Scratch space:

CLUE 4 Multi-step word problems

> Detectives counted candy sacks loaded onto and removed from the hayride. Solve the two-step problem to get the fourth clue.

Solve each problem, then write its letter in the boxes to fill in the missing word.

A strand of

P			P				P		D			H	A			hair turned
47	76	27	47	37	50	13	47	30		50	27			30	27	

up at the scene.

There were 408 candy corn bags in all. 32 candy corn bags were set aside. The rest were shared equally among 8 Junior Detectives. How many candy corn bags did each get?

Answer: ☐ → **P**

Farmer Fred collected 35 skeleton keys in the morning and 30 skeleton keys in the afternoon, then split them equally among 5 Junior Detectives. How many skeleton keys did each get?

Answer: ☐ → **S**

Farmer Fred filled 6 boxes with 3 candy corn bags each, then found 32 more candy corn bags. How many candy corn bags are there in all?

Answer: ☐ → **E**

Farmer Fred earned 7 spooky masks in each of 3 rounds, plus 18 bonus spooky masks. Then 12 spooky masks were lost. How many spooky masks are left?

Answer: ☐ → **R**

Farmer Fred earned 8 candy corn bags in each of 5 rounds, plus 6 bonus candy corn bags. Then 9 candy corn bags were lost. How many candy corn bags are left?

Answer: ☐ → **L**

Farmer Fred earned 4 skeleton keys in each of 3 rounds, plus 75 bonus skeleton keys. Then 11 skeleton keys were lost. How many skeleton keys are left?

Answer: ☐ → **U**

Farmer Fred filled 8 boxes with 2 glowing lanterns each, then found 14 more glowing lanterns. How many glowing lanterns are there in all?

Answer: ☐ → **I**

Scratch space:

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

> The clue chest requires splitting silver skull tokens into equal piles. Divide the treasure to reveal 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:

66 ÷ 11 = ☐ | 9 ÷ 1 = ☐ | 42 ÷ 6 = ☐ | 3 ÷ 3 = ☐ | 27 ÷ 9 = ☐

48 ÷ 4 = ☐ | 8 ÷ 1 = ☐ | 16 ÷ 4 = ☐ | 55 ÷ 5 = ☐ | 30 ÷ 6 = ☐

20 ÷ 2 = ☐

Step 2 - cross out the sentence with each answer:

1. The villain slipped through dark shadows, then fired toy spiders everywhere.
2. The villain sent swarms of bats overhead, then stole candy with a giant magnet.
3. The villain tossed glowing pumpkin bombs, then fired toy spiders everywhere.
4. The villain filled the farm with thick fog, then hid behind a pumpkin helmet.
5. The villain sent swarms of bats overhead, then fired toy spiders everywhere.
6. The villain filled the farm with thick fog, then stole candy with a giant magnet.
7. The villain cast spooky spells on the patch, then hid behind a pumpkin helmet.
8. The villain tossed glowing pumpkin bombs, then lit the path using a glow wand.
9. The villain sent swarms of bats overhead, then lit the path using a glow wand.
10. The villain sent swarms of bats overhead, then shouted loudly into a boo megaphone.
11. The villain sent swarms of bats overhead, then hid behind a pumpkin helmet.
12. The villain filled the farm with thick fog, then fired toy spiders everywhere.

TEACHER / PARENT

Answer Key

The Great Pumpkin Patch Prank

Culprit: Mummy Mia

Bat Swarming · Candy Magnet · Left Handed · Purple Spider Hair · Salt Water Spray

Trail: Start 21 → Clue 1 15 → Clue 2 9 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE VILLAIN DOES NOT USE A SPIDER LAUNCHER"

What is the value of the 7 in 147,311? = 7000 (T) · What is the value of the 2 in 558,217? = 200 (N) · What is the value of the 9 in 32,971? = 900 (P) · What is the value of the 8 in 23,283? = 80 (D) · What is the value of the 4 in 21,545? = 40 (H) · What is the value of the 9 in 29,181? = 9000 (O) · What is the value of the 2 in 42,374? = 2000 (V) · What is the value of the 3 in 73,409? = 3000 (E) · What is the value of the 5 in 98,052? = 50 (I) · What is the value of the 3 in 906,327? = 300 (S) · What is the value of the 3 in 20,631? = 30 (C) · What is the value of the 6 in 11,768? = 60 (A) · What is the value of the 2 in 636,620? = 20 (R) · What is the value of the 1 in 74,214? = 10 (L) · What is the value of the 6 in 43,610? = 600 (U)

Clue 2 (Multiplication facts (1-12)): "WITNESS SAW A LEFT HANDED VILLAIN"

11 × 11 = 121 (W) · 7 × 5 = 35 (I) · 10 × 6 = 60 (T) · 2 × 1 = 2 (F) · 7 × 7 = 49 (D) · 11 × 10 = 110 (H) · 9 × 12 = 108 (E) · 12 × 12 = 144 (S) · 2 × 3 = 6 (V) · 1 × 10 = 10 (N) · 3 × 11 = 33 (A) · 6 × 11 = 66 (L)

Clue 3 (Rounding): "THE VILLAIN RAN FROM SALT WATER SPRAY"

Round 1,691 to the nearest hundred = 1700 (T) · Round 2,263 to the nearest hundred = 2300 (E) · Round 537 to the nearest hundred = 500 (N) · Round 891 to the nearest hundred = 900 (I) · Round 3,288 to the nearest thousand = 3000 (M) · Round 232 to the nearest ten = 230 (H) · Round 110 to the nearest ten = 110 (S) · Round 1,055 to the nearest hundred = 1100 (R) · Round 19 to the nearest ten = 20 (O) · Round 286 to the nearest ten = 290 (Y) · Round 433 to the nearest ten = 430 (L) · Round 1,696 to the nearest thousand = 2000 (P) · Round 31 to the nearest ten = 30 (V) · Round 8,742 to the nearest thousand = 9000 (A) · Round 169 to the nearest hundred = 200 (W) · Round 1,287 to the nearest hundred = 1300 (F)

Clue 4 (Multi-step word problems): "PURPLE SPIDER HAIR"

There were 408 candy corn bags in all. 32 candy corn bags were set aside. The rest were shared equally among 8 Junior Detectives. How many candy corn bags did each get? = 47 (P) · Farmer Fred collected 35 skeleton keys in the morning and 30 skeleton keys in the afternoon, then split them equally among 5 Junior Detectives. How many skeleton keys did each get? = 13 (S) · Farmer Fred filled 6 boxes with 3 candy corn bags each, then found 32 more candy corn bags. How many candy corn bags are there in all? = 50 (E) · Farmer Fred earned 7 spooky masks in each of 3 rounds, plus 18 bonus spooky masks. Then 12 spooky masks were lost. How many spooky masks are left? = 27 (R) · Farmer Fred earned 8 candy corn bags in each of 5 rounds, plus 6 bonus candy corn bags. Then 9 candy corn bags were lost. How many candy corn bags are left? = 37 (L) · Farmer Fred earned 4 skeleton keys in each of 3 rounds, plus 75 bonus skeleton keys. Then 11 skeleton keys were lost. How many skeleton keys are left? = 76 (U) · Farmer Fred filled 8 boxes with 2 glowing lanterns each, then found 14 more glowing lanterns. How many glowing lanterns are there in all? = 30 (I)

Clue 5 (Division facts (1-12)): surviving statement is box 2 → Mummy Mia

66 ÷ 11 = 6 · 9 ÷ 1 = 9 · 42 ÷ 6 = 7 · 3 ÷ 3 = 1 · 27 ÷ 9 = 3 · 48 ÷ 4 = 12 · 8 ÷ 1 = 8 · 16 ÷ 4 = 4 · 55 ÷ 5 = 11 · 30 ÷ 6 = 5 · 20 ÷ 2 = 10