# The Great Pumpkin Patch Prank

Grade 4 math · Multiplication, Rounding, Addition, Subtraction, Division · Reading level grades 5-6

**Detective:** _____ **Date:** _____

On the night of the annual Harvest Festival, someone swiped the Golden Pumpkin Trophy right off the judging stage! A sneaky culprit left behind strange magical tracks and spooky remnants. Decode the clues and help the festival town solve the Halloween mystery before the festival 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 mischievous phantom is** _____

## Possible suspects

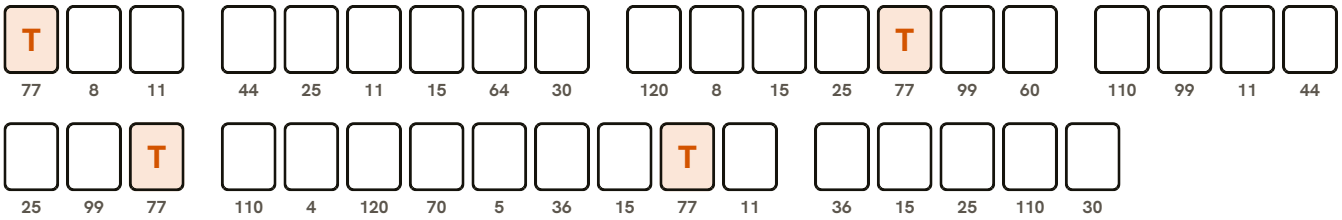
Cross off a row as each clue rules it out. The one left at the end is the culprit.

| NAME | HALLOWEEN MAGIC | SPOOKY TRICK | HABIT | HEADWEAR | DISLIKE |
|---|---|---|---|---|---|
| **Annabeth Chase** | Pumpkin Carving Magic | Spooky Illusions | Taps Left Foot | Ghostly Hood | Silver Bells |
| **Ron Weasley** | Pumpkin Carving Magic | Ghostly Levitation | Taps Left Foot | Witch Hat | Bright Flashlights |
| **Fred Jones** | Potion Brewing | Candy Duplication | Taps Left Foot | Ghostly Hood | Silver Bells |
| **Shaggy Rogers** | Shadow Hopping | Ghostly Levitation | Taps Left Foot | Witch Hat | Garlic Salt |
| **Princess Leia** | Potion Brewing | Candy Duplication | Taps Left Foot | Spider Crown | Silver Bells |
| **Morticia Addams** | Pumpkin Carving Magic | Spooky Illusions | Taps Left Foot | Ghostly Hood | Garlic Salt |
| **Percy Jackson** | Spell Casting | Ghostly Levitation | Taps Left Foot | Ghostly Hood | Silver Bells |
| **Velma Dinkley** | Spell Casting | Eerie Howling | Taps Left Foot | Witch Hat | Silver Bells |
| **Gomez Addams** | Spell Casting | Candy Duplication | Taps Left Foot | Spider Crown | Silver Bells |
| **Hermione Granger** | Potion Brewing | Ghostly Levitation | Taps Left Foot | Ghostly Hood | Bright Flashlights |
| **Casper** | Pumpkin Carving Magic | Ghostly Levitation | Taps Right Foot | Spider Crown | Bright Flashlights |
| **Sally Ragdoll** | Potion Brewing | Ghostly Levitation | Taps Left Foot | Ghostly Hood | Garlic Salt |
| **Jack Skellington** | Bat Swarming | Glow In The Dark Aura | Taps Left Foot | Ghostly Hood | Silver Bells |
| **Sabrina Spellman** | Potion Brewing | Eerie Howling | Taps Left Foot | Spider Crown | Garlic Salt |
| **Frankenstein** | Bat Swarming | Ghostly Levitation | Taps Right Foot | Ghostly Hood | Garlic Salt |
| **Fiona** | Shadow Hopping | Spooky Illusions | Taps Right Foot | Spider Crown | Garlic Salt |
| **Luke Skywalker** | Shadow Hopping | Eerie Howling | Taps Right Foot | Ghostly Hood | Silver Bells |
| **Scooby Doo** | Shadow Hopping | Eerie Howling | Taps Right Foot | Witch Hat | Bright Flashlights |
| **Daphne Blake** | Pumpkin Carving Magic | Ghostly Levitation | Taps Left Foot | Ghostly Hood | Silver Bells |
| **Harry Potter** | Spell Casting | Glow In The Dark Aura | Taps Right Foot | Ghostly Hood | Garlic Salt |
| **Coraline Jones** | Potion Brewing | Eerie Howling | Taps Left Foot | Spider Crown | Silver Bells |

## CLUE 1 Multiplication facts (1-12)

> To figure out how many rows of pumpkin lanterns the culprit moved we must count the total pumpkins in equal batches

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




11 × 7 = ☐ → T

1 × 4 = ☐ → U

8 × 8 = ☐ → K

9 × 4 = ☐ → C

5 × 5 = ☐ → N

5 × 3 = ☐ → A

10 × 6 = ☐ → M

11 × 4 = ☐ → S

1 × 5 = ☐ → I

11 × 1 = ☐ → E

12 × 10 = ☐ → P

10 × 7 = ☐ → L

9 × 11 = ☐ → O

2 × 4 = ☐ → H

10 × 11 = ☐ → D

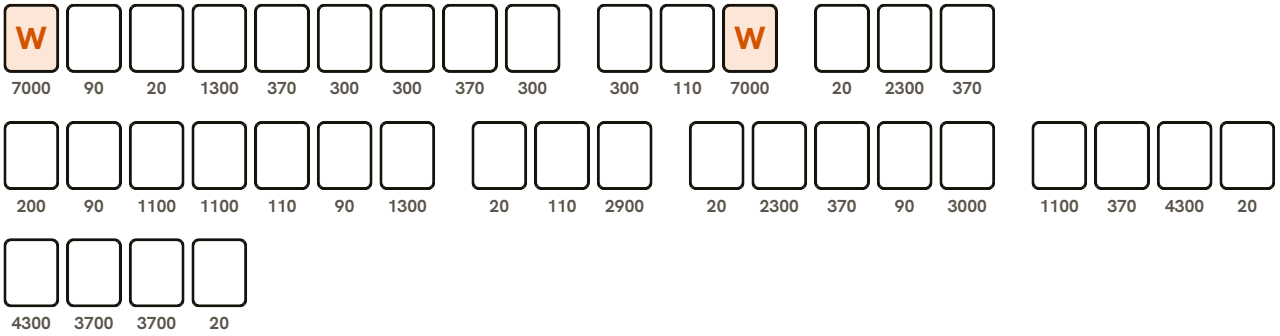
3 × 10 = ☐ → Y

Scratch space:

## CLUE 2 Rounding

The enchanted broomstick radar only displays flying speed rounded to the nearest ten

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




Round 6,592 to the nearest thousand ☐ → W

Round 2,280 to the nearest hundred ☐ → H

Round 366 to the nearest ten ☐ → E

Round 2,789 to the nearest thousand ☐ → R

Round 1,333 to the nearest hundred ☐ → N

Round 108 to the nearest ten ☐ → A

Round 253 to the nearest hundred ☐ → S

Round 24 to the nearest ten ☐ → T

Round 4,313 to the nearest hundred ☐ → F

Round 88 to the nearest ten ☐ → I

Round 3,666 to the nearest hundred ☐ → O

Round 2,923 to the nearest hundred ☐ → P

Round 234 to the nearest hundred ☐ → V

Round 1,117 to the nearest hundred ☐ → L

Scratch space:

CLUE 3

## Addition

We tallied all the candy corn collected across three pumpkin stands to find the total sum

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




2815 + 1503 = ☐ → S

1954 + 4028 = ☐ → C

6194 + 2761 = ☐ → E

3553 + 2742 = ☐ → L

3575 + 6165 = ☐ → A

2320 + 2442 = ☐ → R

1363 + 705 = ☐ → G

938 + 1317 = ☐ → D

2250 + 4459 = ☐ → N

2780 + 4678 = ☐ → I

1139 + 1967 = ☐ → B

1362 + 2112 = ☐ → V

2828 + 3640 = ☐ → H

6174 + 3263 = ☐ → T

2400 + 4652 = ☐ → O

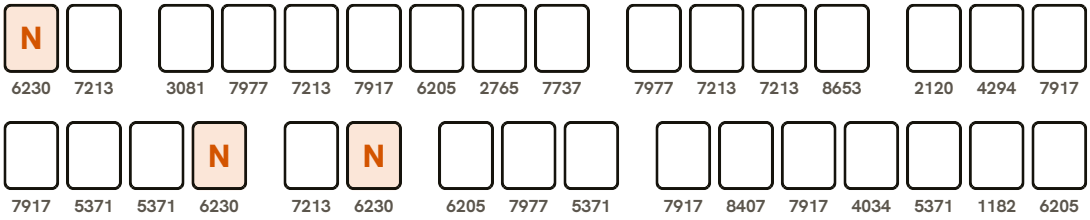
1005 + 1372 = ☐ → F

Scratch space:

## CLUE 4 Subtraction

By comparing the total carved pumpkins before and after midnight we calculated how many vanished

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




10420 - 4190 = ☐ → N

7361 - 4596 = ☐ → L

6166 - 4984 = ☐ → C

5454 - 83 = ☐ → E

11717 - 3980 = ☐ → Y

13205 - 4798 = ☐ → U

7887 - 4806 = ☐ → G

9360 - 707 = ☐ → D

8467 - 2262 = ☐ → T

6121 - 1827 = ☐ → A

10825 - 2908 = ☐ → S

10884 - 3671 = ☐ → O

10409 - 2432 = ☐ → H

4676 - 642 = ☐ → P

2746 - 626 = ☐ → W

Scratch space:

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

To split the spooky clues equally among the investigative teams we divided the notebook pages

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:**

54 ÷ 6 = ☐ | 40 ÷ 8 = ☐ | 6 ÷ 3 = ☐ | 33 ÷ 3 = ☐ | 24 ÷ 2 = ☐

100 ÷ 10 = ☐ | 48 ÷ 12 = ☐ | 60 ÷ 10 = ☐ | 14 ÷ 2 = ☐ | 3 ÷ 3 = ☐

3 ÷ 1 = ☐

**Step 2 - cross out the sentence with each answer:**

1. The villain summoned a swarm of bats, then created spooky glowing illusions.
2. The villain carved spooky magic pumpkins, then floated high above the pumpkin patch.
3. The villain hopped through the shadows, then duplicated glowing trick or treat bags.
4. The villain carved spooky magic pumpkins, then duplicated glowing trick or treat bags.
5. The villain cast confusion spells, then floated high above the pumpkin patch.
6. The villain brewed a bubbling potion, then floated high above the pumpkin patch.
7. The villain brewed a bubbling potion, then let out an eerie ghostly howl.
8. The villain carved spooky magic pumpkins, then created spooky glowing illusions.
9. The villain summoned a swarm of bats, then surrounded themselves with a glowing aura.
10. The villain summoned a swarm of bats, then let out an eerie ghostly howl.
11. The villain cast confusion spells, then duplicated glowing trick or treat bags.
12. The villain carved spooky magic pumpkins, then surrounded themselves with a glowing aura.

TEACHER / PARENT

# Answer Key

The Great Pumpkin Patch Prank

## Culprit: Annabeth Chase

Pumpkin Carving Magic · Spooky Illusions · Taps Left Foot · Ghostly Hood · Silver Bells

Trail: Start 21 → Clue 1 18 → Clue 2 12 → Clue 3 6 → Clue 4 4 → Clue 5 1

### Clue 1 (Multiplication facts (1-12)): "THE SNEAKY PHANTOM DOES NOT DUPLICATE CANDY"

11 × 7 = 77 (T) · 1 × 4 = 4 (U) · 8 × 8 = 64 (K) · 9 × 4 = 36 (C) · 5 × 5 = 25 (N) · 5 × 3 = 15 (A) · 10 × 6 = 60 (M) · 11 × 4 = 44 (S) · 1 × 5 = 5 (I) · 11 × 1 = 11 (E) · 12 × 10 = 120 (P) · 10 × 7 = 70 (L) · 9 × 11 = 99 (O) · 2 × 4 = 8 (H) · 10 × 11 = 110 (D) · 3 × 10 = 30 (Y)

### Clue 2 (Rounding): "WITNESSES SAW THE VILLAIN TAP THEIR LEFT FOOT"

Round 6,592 to the nearest thousand = 7000 (W) · Round 2,280 to the nearest hundred = 2300 (H) · Round 366 to the nearest ten = 370 (E) · Round 2,789 to the nearest thousand = 3000 (R) · Round 1,333 to the nearest hundred = 1300 (N) · Round 108 to the nearest ten = 110 (A) · Round 253 to the nearest hundred = 300 (S) · Round 24 to the nearest ten = 20 (T) · Round 4,313 to the nearest hundred = 4300 (F) · Round 88 to the nearest ten = 90 (I) · Round 3,666 to the nearest hundred = 3700 (O) · Round 2,923 to the nearest hundred = 2900 (P) · Round 234 to the nearest hundred = 200 (V) · Round 1,117 to the nearest hundred = 1100 (L)

### Clue 3 (Addition): "SILVER BELLS HAD NO EFFECT ON THIS GHOST"

2815 + 1503 = 4318 (S) · 1954 + 4028 = 5982 (C) · 6194 + 2761 = 8955 (E) · 3553 + 2742 = 6295 (L) · 3575 + 6165 = 9740 (A) · 2320 + 2442 = 4762 (R) · 1363 + 705 = 2068 (G) · 938 + 1317 = 2255 (D) · 2250 + 4459 = 6709 (N) · 2780 + 4678 = 7458 (I) · 1139 + 1967 = 3106 (B) · 1362 + 2112 = 3474 (V) · 2828 + 3640 = 6468 (H) · 6174 + 3263 = 9437 (T) · 2400 + 4652 = 7052 (O) · 1005 + 1372 = 2377 (F)

### Clue 4 (Subtraction): "NO GHOSTLY HOOD WAS SEEN ON THE SUSPECT"

10420 - 4190 = 6230 (N) · 7361 - 4596 = 2765 (L) · 6166 - 4984 = 1182 (C) · 5454 - 83 = 5371 (E) · 11717 - 3980 = 7737 (Y) · 13205 - 4798 = 8407 (U) · 7887 - 4806 = 3081 (G) · 9360 - 707 = 8653 (D) · 8467 - 2262 = 6205 (T) · 6121 - 1827 = 4294 (A) · 10825 - 2908 = 7917 (S) · 10884 - 3671 = 7213 (O) · 10409 - 2432 = 7977 (H) · 4676 - 642 = 4034 (P) · 2746 - 626 = 2120 (W)

### Clue 5 (Division facts (1-12)): surviving statement is box 8 → Annabeth Chase

54 ÷ 6 = 9 · 40 ÷ 8 = 5 · 6 ÷ 3 = 2 · 33 ÷ 3 = 11 · 24 ÷ 2 = 12 · 100 ÷ 10 = 10 · 48 ÷ 12 = 4 · 60 ÷ 10 = 6 · 14 ÷ 2 = 7 · 3 ÷ 3 = 1 · 3 ÷ 1 = 3