The Great Pumpkin Patch Prank

Grade 6 math · Percentages, Exponents, Order of operations, Multiplication, Division · Reading level grades 3-4

Detective: _____ **Date:** _____

On Halloween night, someone snatched the Golden Jack-o-Lantern right off the town square stage! Detective Bram and the Spooky Squad are on the case to find out who ruined the party.

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 Shadow Thief is _____

Possible suspects

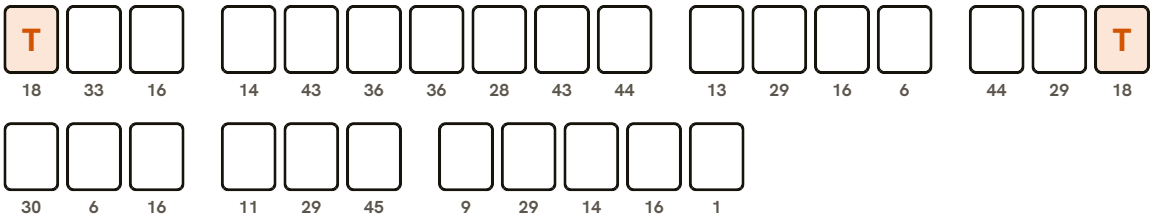
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	TRICK TRICK	SPECIAL EFFECT	DOMINANT HAND	WIG COLOR	SECRET FEAR
Uncle Fester	Bat Swarm	Glow Aura	Left Handed	Midnight Black	Garlic Bread
Penny Wise	Bat Swarm	Howl Shock	Left Handed	Midnight Black	Garlic Bread
Sabrina Spell	Candy Curse	Fog Cover	Left Handed	Midnight Black	Garlic Bread
Casper Broom	Pumpkin Blast	Howl Shock	Right Handed	Midnight Black	Bright Flash
Gargoyle Gary	Ghost Float	Glow Aura	Left Handed	Midnight Black	Silver Bell
Wanda Witch	Ghost Float	Spider Web	Right Handed	Midnight Black	Garlic Bread
Freddie Fright	Ghost Float	Fog Cover	Left Handed	Midnight Black	Bright Flash
Zombie Zack	Candy Curse	Slime Splash	Left Handed	Midnight Black	Garlic Bread
Scooby Snax	Shadow Sneak	Spider Web	Right Handed	Neon Orange	Bright Flash
Velma Vane	Candy Curse	Fog Cover	Right Handed	Neon Orange	Garlic Bread
Sally Skelt	Bat Swarm	Howl Shock	Left Handed	Midnight Black	Silver Bell
Bram Stoker	Shadow Sneak	Fog Cover	Left Handed	Slime Green	Garlic Bread
Elvira Shadow	Shadow Sneak	Glow Aura	Left Handed	Midnight Black	Bright Flash
Glinda Glow	Candy Curse	Howl Shock	Left Handed	Neon Orange	Garlic Bread
Gomez Grave	Shadow Sneak	Slime Splash	Right Handed	Slime Green	Silver Bell
Frankie Stein	Bat Swarm	Glow Aura	Right Handed	Neon Orange	Bright Flash
Shaggy Shadow	Bat Swarm	Slime Splash	Right Handed	Midnight Black	Garlic Bread
Pugsley Pumpkin	Candy Curse	Fog Cover	Right Handed	Slime Green	Garlic Bread
Igor Patch	Bat Swarm	Glow Aura	Left Handed	Slime Green	Silver Bell
Mummy Manny	Shadow Sneak	Slime Splash	Left Handed	Neon Orange	Garlic Bread
Morticia Moon	Candy Curse	Glow Aura	Left Handed	Midnight Black	Garlic Bread

CLUE 1 Percentages

> The town library display is covered in cobwebs, and only a certain percentage of the book titles are still readable.

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



50% of 36 = ☐ → T

5% of 720 = ☐ → L

50% of 90 = ☐ → G

10% of 330 = ☐ → H

25% of 116 = ☐ → O

40% of 35 = ☐ → V

5% of 560 = ☐ → A

20% of 5 = ☐ → R

5% of 860 = ☐ → I

40% of 110 = ☐ → N

25% of 120 = ☐ → U

50% of 22 = ☐ → F

40% of 15 = ☐ → S

25% of 64 = ☐ → E

60% of 15 = ☐ → C

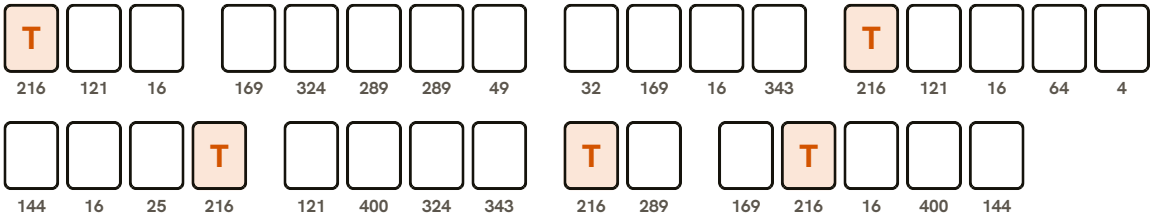
50% of 26 = ☐ → D

Scratch space:

CLUE 2 Exponents

At the spooky manor gate, a keypad door lock uses exponential power levels to reveal secret track logs.

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



6^3 = ☐ → T

2^5 = ☐ → U

20^2 = ☐ → A

12^2 = ☐ → L

7^3 = ☐ → D

18^2 = ☐ → N

17^2 = ☐ → O

4^2 = ☐ → E

4^3 = ☐ → I

13^2 = ☐ → S

7^2 = ☐ → P

11^2 = ☐ → H

5^2 = ☐ → F

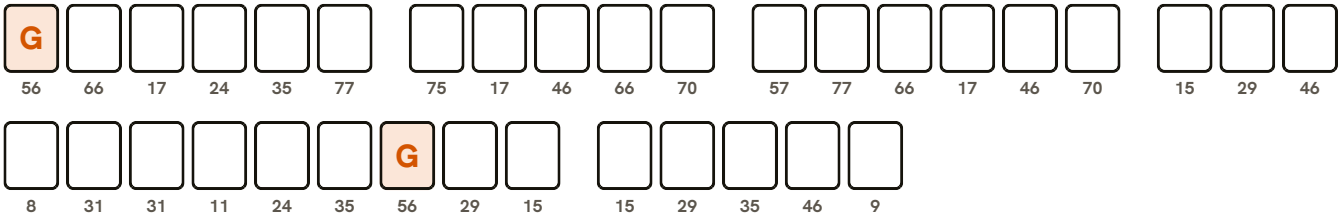
2^2 = ☐ → R

Scratch space:

CLUE 3 Order of operations

Inside the potion lab, solve the multi-step recipe steps in correct order to decode a mysterious diary entry.

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



7 × 9 - 7 = ☐ → G

9 + 3 × 2 = ☐ → T

8 × 6 - 13 = ☐ → I

45 + 3 × 4 = ☐ → S

19 + 2 × 6 = ☐ → O

3 + 4 × 2 = ☐ → N

8 × 11 - 18 = ☐ → D

9 × 9 - 6 = ☐ → B

7 × 7 - 20 = ☐ → H

11 × 5 - 9 = ☐ → E

6 × 4 - 15 = ☐ → F

9 × 4 - 12 = ☐ → L

7 + 2 × 5 = ☐ → R

61 + 2 × 8 = ☐ → C

2 + 2 × 3 = ☐ → M

3 + 9 × 7 = ☐ → A

Scratch space:

CLUE 4 Multiplication facts (1-12)

At the pumpkin patch, equal rows of giant pumpkins hold hidden clue notes under their stems.

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

M																			
8	11	60	120	11	15	84	16	72	96	108	6	2	84	108	11	50	45	108	12

6	108	100	15	84	16	36	120	35	10	120	6	10

$2 \times 4 =$ ☐ → **M**

$3 \times 5 =$ ☐ → **G**

$5 \times 9 =$ ☐ → **W**

$12 \times 8 =$ ☐ → **L**

$7 \times 5 =$ ☐ → **F**

$2 \times 8 =$ ☐ → **T**

$12 \times 6 =$ ☐ → **B**

$1 \times 6 =$ ☐ → **C**

$10 \times 1 =$ ☐ → **E**

$11 \times 1 =$ ☐ → **I**

$2 \times 6 =$ ☐ → **S**

$9 \times 12 =$ ☐ → **A**

$1 \times 2 =$ ☐ → **K**

$12 \times 10 =$ ☐ → **N**

$5 \times 10 =$ ☐ → **R**

$9 \times 4 =$ ☐ → **O**

$5 \times 12 =$ ☐ → **D**

$7 \times 12 =$ ☐ → **H**

$10 \times 10 =$ ☐ → **U**

Scratch space:

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

> Before escaping, the thief split stolen trick-or-treat bags equally into several jack-o-lantern buckets.

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:

28 ÷ 4 = ☐	100 ÷ 10 = ☐	6 ÷ 2 = ☐	48 ÷ 12 = ☐	44 ÷ 4 = ☐
12 ÷ 12 = ☐	50 ÷ 10 = ☐	108 ÷ 9 = ☐	48 ÷ 6 = ☐	27 ÷ 3 = ☐
36 ÷ 6 = ☐				

Step 2 - cross out the sentence with each answer:

1. The villain shot a pumpkin blast, then blasted a howl shock.
2. The villain cast a candy curse, then splattered slime splash.
3. The villain summoned a bat swarm, then blasted a howl shock.
4. The villain shot a pumpkin blast, then splattered slime splash.
5. The villain summoned a bat swarm, then shot a spider web.
6. The villain floated like a ghost, then blasted a howl shock.
7. The villain summoned a bat swarm, then lit up with glow aura.
8. The villain snuck through shadows, then vanished in fog cover.
9. The villain floated like a ghost, then splattered slime splash.
10. The villain cast a candy curse, then lit up with glow aura.
11. The villain cast a candy curse, then vanished in fog cover.
12. The villain summoned a bat swarm, then vanished in fog cover.

TEACHER / PARENT

Answer Key

The Great Pumpkin Patch Prank

Culprit: Zombie Zack

Candy Curse · Slime Splash · Left Handed · Midnight Black · Garlic Bread

Trail: Start 21 → Clue 1 16 → Clue 2 10 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Percentages): "THE VILLAIN DOES NOT USE FOG COVER"

50% of 36 = 18 (T) · 5% of 720 = 36 (L) · 50% of 90 = 45 (G) · 10% of 330 = 33 (H) · 25% of 116 = 29 (O) · 40% of 35 = 14 (V) · 5% of 560 = 28 (A) · 20% of 5 = 1 (R) · 5% of 860 = 43 (I) · 40% of 110 = 44 (N) · 25% of 120 = 30 (U) · 50% of 22 = 11 (F) · 40% of 15 = 6 (S) · 25% of 64 = 16 (E) · 60% of 15 = 9 (C) · 50% of 26 = 13 (D)

Clue 2 (Exponents): "THE SNOOP USED THEIR LEFT HAND TO STEAL"

6^3 = 216 (T) · 2^5 = 32 (U) · 20^2 = 400 (A) · 12^2 = 144 (L) · 7^3 = 343 (D) · 18^2 = 324 (N) · 17^2 = 289 (O) · 4^2 = 16 (E) · 4^3 = 64 (I) · 13^2 = 169 (S) · 7^2 = 49 (P) · 11^2 = 121 (H) · 5^2 = 25 (F) · 2^2 = 4 (R)

Clue 3 (Order of operations): "GARLIC BREAD SCARED THE MOONLIGHT THIEF"

7 × 9 - 7 = 56 (G) · 9 + 3 × 2 = 15 (T) · 8 × 6 - 13 = 35 (I) · 45 + 3 × 4 = 57 (S) · 19 + 2 × 6 = 31 (O) · 3 + 4 × 2 = 11 (N) · 8 × 11 - 18 = 70 (D) · 9 × 9 - 6 = 75 (B) · 7 × 7 - 20 = 29 (H) · 11 × 5 - 9 = 46 (E) · 6 × 4 - 15 = 9 (F) · 9 × 4 - 12 = 24 (L) · 7 + 2 × 5 = 17 (R) · 61 + 2 × 8 = 77 (C) · 2 + 2 × 3 = 8 (M) · 3 + 9 × 7 = 66 (A)

Clue 4 (Multiplication facts (1-12)): "MIDNIGHT BLACK HAIR WAS CAUGHT ON FENCE"

2 × 4 = 8 (M) · 3 × 5 = 15 (G) · 5 × 9 = 45 (W) · 12 × 8 = 96 (L) · 7 × 5 = 35 (F) · 2 × 8 = 16 (T) · 12 × 6 = 72 (B) · 1 × 6 = 6 (C) · 10 × 1 = 10 (E) · 11 × 1 = 11 (I) · 2 × 6 = 12 (S) · 9 × 12 = 108 (A) · 1 × 2 = 2 (K) · 12 × 10 = 120 (N) · 5 × 10 = 50 (R) · 9 × 4 = 36 (O) · 5 × 12 = 60 (D) · 7 × 12 = 84 (H) · 10 × 10 = 100 (U)

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

28 ÷ 4 = 7 · 100 ÷ 10 = 10 · 6 ÷ 2 = 3 · 48 ÷ 12 = 4 · 44 ÷ 4 = 11 · 12 ÷ 12 = 1 · 50 ÷ 10 = 5 · 108 ÷ 9 = 12 · 48 ÷ 6 = 8 · 27 ÷ 3 = 9 · 36 ÷ 6 = 6