The Great Pumpkin Patch Mystery

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

Detective: _____ **Date:** _____

Someone swiped the Golden Jack-o'-Lantern right before the big festival contest! Solve the math clues, eliminate suspects, and track down the culprit.

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 Prankster is _____

Possible suspects

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

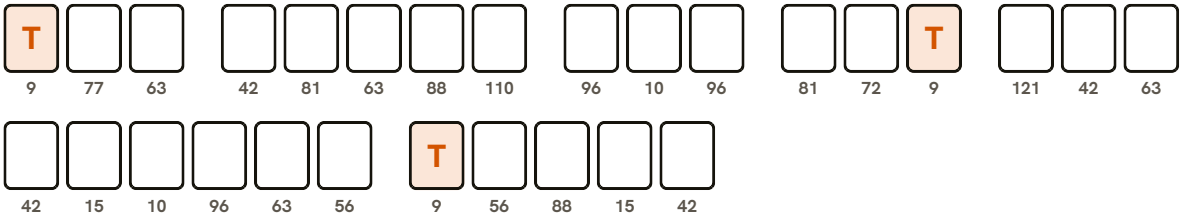
NAME	DISGUISE	GADGET	DOMINANT HAND	HAIR COLOR	FEAR
Boris Karloff	Mummy Wrap	Fog Cannon	Right-handed	Orange Locks	Garlic Sprays
Morticia Addams	Witch Hat	Candy Bag	Left-handed	Purple Spikes	Bright Lanterns
Tabitha Moon	Mummy Wrap	Glow Orb	Right-handed	Orange Locks	Bright Lanterns
Gomez Addams	Witch Hat	Fog Cannon	Left-handed	Orange Locks	Garlic Sprays
Wendy Witch	Skeleton Suit	Spider Traps	Left-handed	Purple Spikes	Garlic Sprays
Sabrina Spell	Skeleton Suit	Spider Traps	Left-handed	Purple Spikes	Silver Bells
Casper Ghost	Ghost Cloak	Fog Cannon	Right-handed	Black Curls	Bright Lanterns
Pip Pumpkin	Vampire Cape	Candy Bag	Right-handed	Orange Locks	Bright Lanterns
Gideon Gloom	Skeleton Suit	Fog Cannon	Right-handed	Black Curls	Bright Lanterns
Pugsley Addams	Witch Hat	Fog Cannon	Right-handed	Black Curls	Garlic Sprays
Lurch Willow	Skeleton Suit	Fog Cannon	Right-handed	Orange Locks	Garlic Sprays
Wednesday Addams	Mummy Wrap	Fog Cannon	Right-handed	Orange Locks	Silver Bells
Mary Shelley	Mummy Wrap	Bat Whistle	Left-handed	Orange Locks	Silver Bells
Elvira Shade	Ghost Cloak	Glow Orb	Right-handed	Purple Spikes	Garlic Sprays
Vincent Price	Skeleton Suit	Spider Traps	Right-handed	Black Curls	Silver Bells
Jack Lantern	Ghost Cloak	Candy Bag	Right-handed	Orange Locks	Garlic Sprays
Bram Stoker	Mummy Wrap	Fog Cannon	Right-handed	Black Curls	Bright Lanterns
Bela Lugosi	Skeleton Suit	Spider Traps	Right-handed	Black Curls	Bright Lanterns
Count Vlad	Vampire Cape	Glow Orb	Right-handed	Black Curls	Silver Bells
Hazel Broom	Ghost Cloak	Bat Whistle	Right-handed	Black Curls	Bright Lanterns
Uncle Fester	Skeleton Suit	Bat Whistle	Left-handed	Black Curls	Bright Lanterns

make your own at mathcrackers.com

CLUE 1 Multiplication facts (1-12)

Check the festival treat trays arranged in equal rows.

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



9 × 1 = ☐ → **T**

7 × 9 = ☐ → **E**

11 × 8 = ☐ → **A**

11 × 11 = ☐ → **U**

3 × 5 = ☐ → **P**

12 × 6 = ☐ → **O**

9 × 9 = ☐ → **N**

5 × 2 = ☐ → **I**

8 × 7 = ☐ → **R**

11 × 10 = ☐ → **K**

12 × 8 = ☐ → **D**

7 × 11 = ☐ → **H**

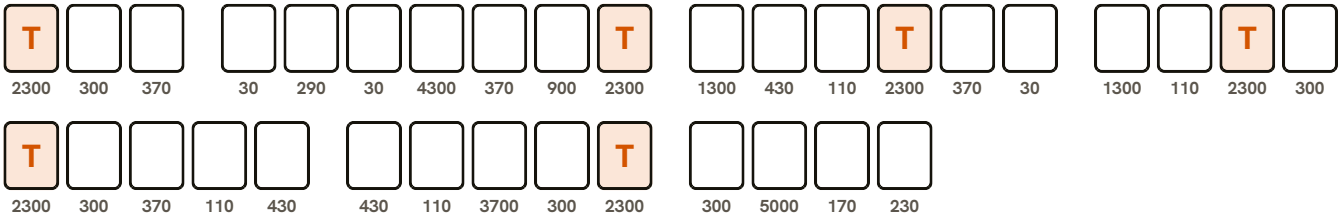
6 × 7 = ☐ → **S**

Scratch space:

CLUE 2 Rounding

The haunted tracker rounds footprint counts to the nearest ten.

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



Round 2,286 to the nearest hundred ☐ → T

Round 4,717 to the nearest thousand ☐ → A

Round 233 to the nearest ten ☐ → D

Round 291 to the nearest ten ☐ → U

Round 3,740 to the nearest hundred ☐ → G

Round 27 to the nearest ten ☐ → S

Round 173 to the nearest ten ☐ → N

Round 1,278 to the nearest hundred ☐ → W

Round 370 to the nearest ten ☐ → E

Round 109 to the nearest ten ☐ → I

Round 891 to the nearest hundred ☐ → C

Round 431 to the nearest ten ☐ → R

Round 4,275 to the nearest hundred ☐ → P

Round 292 to the nearest hundred ☐ → H

Scratch space:

CLUE 3 Multi-step word problems

Help the host calculate the rest of the missing party supplies.

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

Someone scared the villain off with



.

Junior Detective collected 56 carved pumpkins in the morning and 286 carved pumpkins in the afternoon, then split them equally among 6 Spooky Squad. How many carved pumpkins did each get?

Answer: ☐ → **B**

There were 369 bat stickers in all. 25 bat stickers were set aside. The rest were shared equally among 8 Spooky Squad. How many bat stickers did each get?

Answer: ☐ → **G**

Junior Detective earned 2 bat stickers in each of 5 rounds, plus 66 bonus bat stickers. Then 10 bat stickers were lost. How many bat stickers are left?

Answer: ☐ → **I**

Junior Detective earned 2 spooky masks in each of 4 rounds, plus 71 bonus spooky masks. Then 2 spooky masks were lost. How many spooky masks are left?

Answer: ☐ → **L**

There were 307 bat stickers in all. 4 Spooky Squad used 13 bat stickers each. The other 5 Spooky Squad shared the rest equally. How many bat stickers did each of the other Spooky Squad get?

Answer: ☐ → **T**

Junior Detective earned 6 carved pumpkins in each of 3 rounds, plus 23 bonus carved pumpkins. Then 2 carved pumpkins were lost. How many carved pumpkins are left?

Answer: ☐ → **R**

There were 97 bat stickers in all. 17 bat stickers were set aside. The rest were shared equally among 10 Spooky Squad. How many bat stickers did each get?

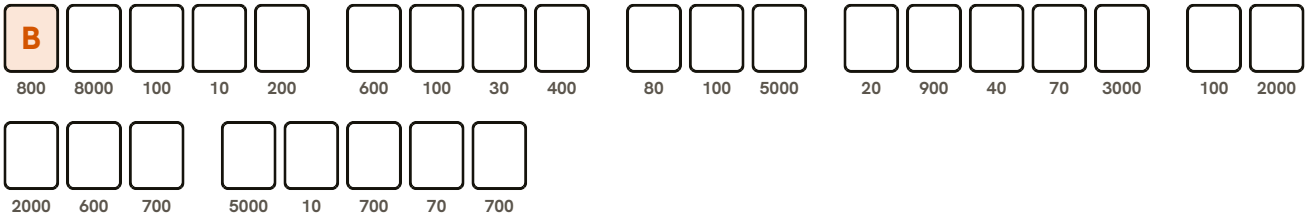
Answer: ☐ → **H**

Scratch space:

CLUE 4 Place value

A digit lock box holds a hidden piece of evidence.

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



What is the value of the 8 in 53,822? ☐ → **B**

What is the value of the 9 in 650,951? ☐ → **O**

What is the value of the 7 in 60,785? ☐ → **E**

What is the value of the 8 in 48,479? ☐ → **L**

What is the value of the 3 in 69,434? ☐ → **I**

What is the value of the 5 in 485,607? ☐ → **S**

What is the value of the 2 in 82,150? ☐ → **T**

What is the value of the 4 in 18,741? ☐ → **U**

What is the value of the 2 in 731,250? ☐ → **K**

What is the value of the 1 in 765,718? ☐ → **C**

What is the value of the 2 in 95,320? ☐ → **F**

What is the value of the 4 in 61,458? ☐ → **R**

What is the value of the 7 in 324,575? ☐ → **N**

What is the value of the 8 in 33,581? ☐ → **W**

What is the value of the 3 in 783,429? ☐ → **D**

What is the value of the 6 in 104,692? ☐ → **H**

What is the value of the 1 in 90,105? ☐ → **A**

Scratch space:

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

Divide the leftover prize buttons evenly to open the clue door.

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 = ☐ | 100 ÷ 10 = ☐ | 12 ÷ 1 = ☐ | 30 ÷ 10 = ☐ | 36 ÷ 9 = ☐

10 ÷ 2 = ☐ | 44 ÷ 4 = ☐ | 24 ÷ 3 = ☐ | 4 ÷ 4 = ☐ | 6 ÷ 1 = ☐

7 ÷ 1 = ☐

Step 2 - cross out the sentence with each answer:

1. The villain wore a ghost cloak, then lit a glow orb.
2. The villain wore a skeleton suit, then blasted a fog cannon.
3. The villain wore a vampire cape, then lit a glow orb.
4. The villain wore a mummy wrap, then lit a glow orb.
5. The villain wore a witch hat, then blasted a fog cannon.
6. The villain wore a skeleton suit, then blew a bat whistle.
7. The villain wore a vampire cape, then set up spider traps.
8. The villain wore a mummy wrap, then grabbed a candy bag.
9. The villain wore a ghost cloak, then blasted a fog cannon.
10. The villain wore a ghost cloak, then blew a bat whistle.
11. The villain wore a vampire cape, then grabbed a candy bag.
12. The villain wore a mummy wrap, then blasted a fog cannon.

TEACHER / PARENT

Answer Key

The Great Pumpkin Patch Mystery

Culprit: Gideon Gloom

Skeleton Suit · Fog Cannon · Right-handed · Black Curls · Bright Lanterns

Trail: Start 21 → Clue 1 17 → Clue 2 13 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE SNEAK DID NOT USE SPIDER TRAPS"

9 × 1 = 9 (T) · 7 × 9 = 63 (E) · 11 × 8 = 88 (A) · 11 × 11 = 121 (U) · 3 × 5 = 15 (P) · 12 × 6 = 72 (O) · 9 × 9 = 81 (N) · 5 × 2 = 10 (I) · 8 × 7 = 56 (R) · 11 × 10 = 110 (K) · 12 × 8 = 96 (D) · 7 × 11 = 77 (H) · 6 × 7 = 42 (S)

Clue 2 (Rounding): "THE SUSPECT WRITES WITH THEIR RIGHT HAND"

Round 2,286 to the nearest hundred = 2300 (T) · Round 4,717 to the nearest thousand = 5000 (A) · Round 233 to the nearest ten = 230 (D) · Round 291 to the nearest ten = 290 (U) · Round 3,740 to the nearest hundred = 3700 (G) · Round 27 to the nearest ten = 30 (S) · Round 173 to the nearest ten = 170 (N) · Round 1,278 to the nearest hundred = 1300 (W) · Round 370 to the nearest ten = 370 (E) · Round 109 to the nearest ten = 110 (I) · Round 891 to the nearest hundred = 900 (C) · Round 431 to the nearest ten = 430 (R) · Round 4,275 to the nearest hundred = 4300 (P) · Round 292 to the nearest hundred = 300 (H)

Clue 3 (Multi-step word problems): "BRIGHT LANTERNS"

Junior Detective collected 56 carved pumpkins in the morning and 286 carved pumpkins in the afternoon, then split them equally among 6 Spooky Squad. How many carved pumpkins did each get? = 57 (B) · There were 369 bat stickers in all. 25 bat stickers were set aside. The rest were shared equally among 8 Spooky Squad. How many bat stickers did each get? = 43 (G) · Junior Detective earned 2 bat stickers in each of 5 rounds, plus 66 bonus bat stickers. Then 10 bat stickers were lost. How many bat stickers are left? = 66 (I) · Junior Detective earned 2 spooky masks in each of 4 rounds, plus 71 bonus spooky masks. Then 2 spooky masks were lost. How many spooky masks are left? = 77 (L) · There were 307 bat stickers in all. 4 Spooky Squad used 13 bat stickers each. The other 5 Spooky Squad shared the rest equally. How many bat stickers did each of the other Spooky Squad get? = 51 (T) · Junior Detective earned 6 carved pumpkins in each of 3 rounds, plus 23 bonus carved pumpkins. Then 2 carved pumpkins were lost. How many carved pumpkins are left? = 39 (R) · There were 97 bat stickers in all. 17 bat stickers were set aside. The rest were shared equally among 10 Spooky Squad. How many bat stickers did each get? = 8 (H)

Clue 4 (Place value): "BLACK HAIR WAS FOUND AT THE SCENE"

What is the value of the 8 in 53,822? = 800 (B) · What is the value of the 9 in 650,951? = 900 (O) · What is the value of the 7 in 60,785? = 700 (E) · What is the value of the 8 in 48,479? = 8000 (L) · What is the value of the 3 in 69,434? = 30 (I) · What is the value of the 5 in 485,607? = 5000 (S) · What is the value of the 2 in 82,150? = 2000 (T) · What is the value of the 4 in 18,741? = 40 (U) · What is the value of the 2 in 731,250? = 200 (K) · What is the value of the 1 in 765,718? = 10 (C) · What is the value of the 2 in 95,320? = 20 (F) · What is the value of the 4 in 61,458? = 400 (R) · What is the value of the 7 in 324,575? = 70 (N) · What is the value of the 8 in 33,581? = 80 (W) · What is the value of the 3 in 783,429? = 3000 (D) · What is the value of the 6 in 104,692? = 600 (H) · What is the value of the 1 in 90,105? = 100 (A)

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

54 ÷ 6 = 9 · 100 ÷ 10 = 10 · 12 ÷ 1 = 12 · 30 ÷ 10 = 3 · 36 ÷ 9 = 4 · 10 ÷ 2 = 5 · 44 ÷ 4 = 11 · 24 ÷ 3 = 8 · 4 ÷ 4 = 1 · 6 ÷ 1 = 6 · 7 ÷ 1 = 7