



The Mystery of the Great Pumpkin Heist

Grade 4 math · Multiplication, Bar models, Word problems, Rounding, Division · Reading level grades 3-4

Detective: _____ Date: _____

Someone swapped the town's giant contest pumpkin with a painted watermelon right before the Halloween festival! Detective, examine the clues around the pumpkin patch to catch 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 mischievous monster is _____

Possible suspects

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

NAME	TRICK USED	CANDY STASH	WEARS GLOVES	COSTUME HAIR	SCARED BY
Xander Harris	Bat Swarm	Lollipops	Black Gloves	Vampire Slick Hair	Flashlights
Buffy Summers	Fog Blast	Candy Corn	Black Gloves	Witch Broom Hair	Squeaky Toys
Herman Munster	Vine Entangle	Chocolate Bars	Orange Gloves	Zombie Green Hair	Garlic Bread
Rupert Giles	Bat Swarm	Sour Drops	Black Gloves	Witch Broom Hair	Garlic Bread
Morticia Addams	Bat Swarm	Candy Corn	Black Gloves	Vampire Slick Hair	Garlic Bread
Gomez Addams	Bat Swarm	Lollipops	Orange Gloves	Zombie Green Hair	Flashlights
Lily Munster	Vine Entangle	Candy Corn	Black Gloves	Witch Broom Hair	Squeaky Toys
Sam Hain	Fog Blast	Candy Corn	Orange Gloves	Witch Broom Hair	Squeaky Toys
Sabrina Spellman	Bat Swarm	Chocolate Bars	Black Gloves	Witch Broom Hair	Squeaky Toys
Shaggy Rogers	Shadow Jump	Sour Drops	Black Gloves	Vampire Slick Hair	Garlic Bread
Willow Rosenberg	Bat Swarm	Sour Drops	Orange Gloves	Zombie Green Hair	Garlic Bread
Velma Dinkley	Shadow Jump	Sour Drops	Black Gloves	Zombie Green Hair	Squeaky Toys
Daphne Blake	Vine Entangle	Gummy Worms	Black Gloves	Witch Broom Hair	Squeaky Toys
Sally Brown	Fog Blast	Gummy Worms	Orange Gloves	Vampire Slick Hair	Squeaky Toys
Linus Van Pelt	Fog Blast	Sour Drops	Black Gloves	Vampire Slick Hair	Garlic Bread
Wednesday Addams	Fog Blast	Chocolate Bars	Black Gloves	Vampire Slick Hair	Garlic Bread
Count Dracula	Fog Blast	Candy Corn	Black Gloves	Witch Broom Hair	Garlic Bread
Ebenezer Scrooge	Fog Blast	Lollipops	Black Gloves	Witch Broom Hair	Squeaky Toys
Ichabod Crane	Ghostly Shriek	Sour Drops	Black Gloves	Vampire Slick Hair	Squeaky Toys
Casper Ghost	Shadow Jump	Lollipops	Orange Gloves	Zombie Green Hair	Squeaky Toys
Laurie Strode	Shadow Jump	Lollipops	Black Gloves	Vampire Slick Hair	Garlic Bread

Multiplication facts (1-12)

The patch farmer arranged spooky pumpkin displays in equal rows across the field. Count the total pumpkins to unlock the first clue.

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

16 15 8 33 70 88 96 24 63 16 6 63 6 81 108 16

32 16 8 55 88 33 15 108 33 108 88 55 16 8 80 55 24 32

$$4 \times 4 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$3 \times 5 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$8 \times 3 = \boxed{} \rightarrow \boxed{\text{R}}$$

$$8 \times 4 = \boxed{} \rightarrow \boxed{\mathbf{S}}$$

$11 \times 5 = \boxed{} \rightarrow \boxed{\mathbf{A}}$

$3 \times 2 = \square \rightarrow \boxed{\mathbf{D}}$

$8 \times 12 = \boxed{} \rightarrow \boxed{\text{P}}$

$$9 \times 9 = \boxed{} \rightarrow \boxed{\text{N}}$$

$10 \times 8 = \boxed{} \rightarrow \boxed{\mathbf{B}}$

$$9 \times 12 = \boxed{} \rightarrow \boxed{0}$$

$8 \times 1 = \boxed{} \rightarrow \boxed{\text{E}}$

$8 \times 11 = \boxed{} \rightarrow \boxed{\text{L}}$

$7 \times 10 = \boxed{} \rightarrow \boxed{\text{U}}$

$$9 \times 7 = \boxed{} \rightarrow \boxed{}$$

$3 \times 11 = \square \rightarrow \boxed{\text{C}}$

Scratch space:

CLUE 2

Bar model word problems

The harvest helper compared the weights of giant squash using stacked bar models. Solve the model comparison to reveal the next clue.

Draw a bar model to solve each word problem, then write its letter in the boxes to fill in the missing word.

A witness saw the villain was B V E S .

111 36 104 24 73 52 36 42

Farmer Jack has 222 carving tools, packed 2 to a bag. How many bags can be filled?

draw a bar model

Answer: → B

There were 69 glow sticks in all. 27 glow sticks were used. How many glow sticks are left?

draw a bar model

Answer: → O

The red team has 143 carving tools and the blue team has 39 carving tools. How many more carving tools does the red team have?

draw a bar model

Answer: → A

There were 82 plastic spiders in all. 30 plastic spiders were used. How many plastic spiders are left?

draw a bar model

Answer: → G

Farmer Jack shares 72 plastic spiders equally among 2 teams. How many plastic spiders does each team get?

draw a bar model

Answer: → L

One group collected 49 plastic spiders and another group collected 24 plastic spiders. How many plastic spiders in all?

draw a bar model

Answer: → K

Farmer Jack has 12 times as many glow sticks as a teammate. The teammate has 2 glow sticks. How many glow sticks does Farmer Jack have?

draw a bar model

Answer: → C

CLUE 3

Word problems

A trick-or-treater tallied up the snacks gathered in different neighborhood sectors. Finish the story problem to discover the culprit's trail.

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

Someone scared the villain off with S T O S .

78 79 57 46 55 19 27 27 78

Farmer Jack found 21 carving tools yesterday and 57 more today. How many carving tools in all?

Answer: → S

There were 22 glow sticks. 3 were used up. How many glow sticks are left?

Answer: → K

Farmer Jack found 19 glow sticks yesterday and 27 more today. How many glow sticks in all?

Answer: → E

Farmer Jack found 4 plastic spiders yesterday and 53 more today. How many plastic spiders in all?

Answer: → U

There were 109 candy bags. 30 were used up. How many candy bags are left?

Answer: → Q

Farmer Jack found 8 plastic spiders yesterday and 19 more today. How many plastic spiders in all?

Answer: → Y

Farmer Jack lined up 11 rows of 5 candy bags. How many candy bags in all?

Answer: → A

Scratch space:

CLUE 4 Rounding

The patch digital radar scale rounds all heavy pumpkin weights to the nearest hundred. Round these measurements to decipher the evidence.

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

W															W		
2300	90	9000	430	230	130	1700	290	290	200	230	3700	90	1700	2300	3700	20	
170	290	300	1100	3000	290	1100	9000	230	5000	20	9000	3700	2900	5000			

Round 2,283 to the nearest hundred → **W**

Round 171 to the nearest ten → **F**

Round 4,894 to the nearest thousand → **E**

Round 87 to the nearest ten → **I**

Round 291 to the nearest hundred → **U**

Round 287 to the nearest ten → **O**

Round 1,722 to the nearest hundred → **R**

Round 134 to the nearest ten → **B**

Round 175 to the nearest hundred → **M**

Round 432 to the nearest ten → **C**

Round 8,896 to the nearest thousand → **T**

Round 1,067 to the nearest hundred → **N**

Round 3,163 to the nearest thousand → **D**

Round 2,906 to the nearest hundred → **G**

Round 20 to the nearest ten → **S**

Round 228 to the nearest ten → **H**

Round 3,712 to the nearest hundred → **A**

Scratch space:

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

The monster divided the stolen pumpkin seeds into equal trick-or-treat bags. Share the seeds evenly to uncover 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:

$45 \div 9 = \boxed{}$

$84 \div 7 = \boxed{}$

$90 \div 9 = \boxed{}$

$1 \div 1 = \boxed{}$

$4 \div 1 = \boxed{}$

$12 \div 6 = \boxed{}$

$99 \div 9 = \boxed{}$

$96 \div 12 = \boxed{}$

$84 \div 12 = \boxed{}$

$72 \div 8 = \boxed{}$

$21 \div 7 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain summoned a bat swarm, then swiped giant lollipops.
2. The villain jumped through shadows, then grabbed bags of gummy worms.
3. The villain tangled the fences in vines, then swiped giant lollipops.
4. The villain let out a ghostly shriek, then swiped giant lollipops.
5. The villain blasted spooky fog, then swiped giant lollipops.
6. The villain tangled the fences in vines, then snapped up candy corn.
7. The villain summoned a bat swarm, then grabbed bags of gummy worms.
8. The villain let out a ghostly shriek, then stole chocolate bars.
9. The villain jumped through shadows, then snatched sour drops.
10. The villain blasted spooky fog, then snapped up candy corn.
11. The villain let out a ghostly shriek, then snapped up candy corn.
12. The villain tangled the fences in vines, then grabbed bags of gummy worms.

Answer Key

The Mystery of the Great Pumpkin Heist

Culprit: Lily Munster

Vine Entangle · Candy Corn · Black Gloves · Witch Broom Hair · Squeaky Toys

Trail: Start 21 → Clue 1 18 → Clue 2 13 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE CULPRIT DID NOT STEAL CHOCOLATE BARS"

$4 \times 4 = 16$ (T) · $3 \times 5 = 15$ (H) · $8 \times 3 = 24$ (R) · $8 \times 4 = 32$ (S) · $11 \times 5 = 55$ (A) · $3 \times 2 = 6$ (D) · $8 \times 12 = 96$ (P) · $9 \times 9 = 81$ (N) · $10 \times 8 = 80$ (B) · $9 \times 12 = 108$ (O) · $8 \times 1 = 8$ (E) · $8 \times 11 = 88$ (L) · $7 \times 10 = 70$ (U) · $9 \times 7 = 63$ (I) · $3 \times 11 = 33$ (C)

Clue 2 (Bar model word problems): "BLACK GLOVES"

Farmer Jack has 222 carving tools, packed 2 to a bag. How many bags can be filled? = 111 (B) · There were 69 glow sticks in all. 27 glow sticks were used. How many glow sticks are left? = 42 (O) · The red team has 143 carving tools and the blue team has 39 carving tools. How many more carving tools does the red team have? = 104 (A) · There were 82 plastic spiders in all. 30 plastic spiders were used. How many plastic spiders are left? = 52 (G) · Farmer Jack shares 72 plastic spiders equally among 2 teams. How many plastic spiders does each team get? = 36 (L) · One group collected 49 plastic spiders and another group collected 24 plastic spiders. How many plastic spiders in all? = 73 (K) · Farmer Jack has 12 times as many glow sticks as a teammate. The teammate has 2 glow sticks. How many glow sticks does Farmer Jack have? = 24 (C)

Clue 3 (Word problems): "SQUEAKY TOYS"

Farmer Jack found 21 carving tools yesterday and 57 more today. How many carving tools in all? = 78 (S) · There were 22 glow sticks. 3 were used up. How many glow sticks are left? = 19 (K) · Farmer Jack found 19 glow sticks yesterday and 27 more today. How many glow sticks in all? = 46 (E) · Farmer Jack found 4 plastic spiders yesterday and 53 more today. How many plastic spiders in all? = 57 (U) · There were 109 candy bags. 30 were used up. How many candy bags are left? = 79 (Q) · Farmer Jack found 8 plastic spiders yesterday and 19 more today. How many plastic spiders in all? = 27 (Y) · Farmer Jack lined up 11 rows of 5 candy bags. How many candy bags in all? = 55 (A)

Clue 4 (Rounding): "WITCH BROOM HAIR WAS FOUND ON THE STAGE"

Round 2,283 to the nearest hundred = 2300 (W) · Round 171 to the nearest ten = 170 (F) · Round 4,894 to the nearest thousand = 5000 (E) · Round 87 to the nearest ten = 90 (I) · Round 291 to the nearest hundred = 300 (U) · Round 287 to the nearest ten = 290 (O) · Round 1,722 to the nearest hundred = 1700 (R) · Round 134 to the nearest ten = 130 (B) · Round 175 to the nearest hundred = 200 (M) · Round 432 to the nearest ten = 430 (C) · Round 8,896 to the nearest thousand = 9000 (T) · Round 1,067 to the nearest hundred = 1100 (N) · Round 3,163 to the nearest thousand = 3000 (D) · Round 2,906 to the nearest hundred = 2900 (G) · Round 20 to the nearest ten = 20 (S) · Round 228 to the nearest ten = 230 (H) · Round 3,712 to the nearest hundred = 3700 (A)

Clue 5 (Division facts (1-12)): surviving statement is box 6 → Lily Munster

$45 \div 9 = 5$ · $84 \div 7 = 12$ · $90 \div 9 = 10$ · $1 \div 1 = 1$ · $4 \div 1 = 4$ · $12 \div 6 = 2$ · $99 \div 9 = 11$ · $96 \div 12 = 8$ · $84 \div 12 = 7$ · $72 \div 8 = 9$ · $21 \div 7 = 3$