The Spooky Sugar Mystery

Grade 3 math · Place value, Addition, Subtraction, Rounding, Missing addends · Reading level grades 3-4

Detective: _____ **Date:** _____

Someone swiped the giant golden pumpkin pie right before the Halloween parade! Solve the clues to catch the Candy Bandit and save the festival.

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 Candy Bandit is _____

Possible suspects

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

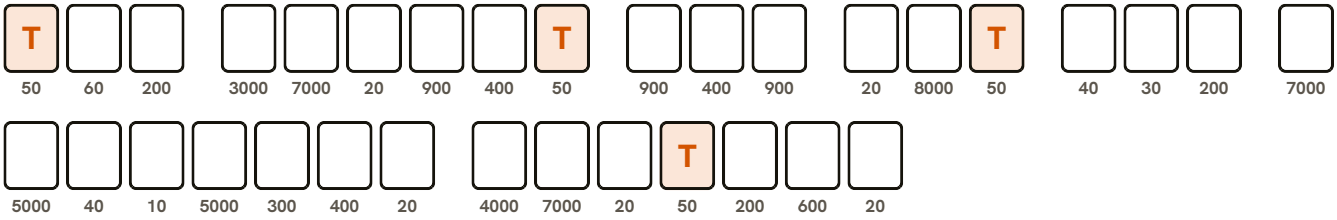
NAME	DISGUISE	TRICK	HABIT	COSTUME WIG	FEAR
Batty Ben	Ghost Sheet	Flying Broom	Left Handed	Lime Green	Bright Flashlight
Spooky Sue	Witch Hat	Pumpkin Lantern	Right Handed	Neon Orange	Bright Flashlight
Howling Hank	Ghost Sheet	Magic Wand	Right Handed	Lime Green	Bright Flashlight
Haunted Hannah	Mummy Wrap	Flying Broom	Right Handed	Midnight Black	Bright Flashlight
Trickster Tim	Mummy Wrap	Glowing Eyes	Right Handed	Lime Green	Garlic Spray
Witchy Wendy	Vampire Cape	Pumpkin Lantern	Right Handed	Neon Orange	Loud Whistle
Mummy Mia	Ghost Sheet	Glowing Eyes	Right Handed	Lime Green	Bright Flashlight
Cobweb Cora	Ghost Sheet	Magic Wand	Left Handed	Lime Green	Garlic Spray
Jack Lantern	Skeleton Suit	Glowing Eyes	Left Handed	Midnight Black	Bright Flashlight
Monster Max	Mummy Wrap	Magic Wand	Right Handed	Midnight Black	Bright Flashlight
Zombie Zoe	Ghost Sheet	Glowing Eyes	Left Handed	Neon Orange	Bright Flashlight
Mystic Maya	Mummy Wrap	Magic Wand	Right Handed	Midnight Black	Loud Whistle
Shadow Sam	Vampire Cape	Bat Swarm	Left Handed	Midnight Black	Bright Flashlight
Phantom Pete	Skeleton Suit	Flying Broom	Right Handed	Midnight Black	Bright Flashlight
Creepy Carl	Mummy Wrap	Magic Wand	Left Handed	Lime Green	Garlic Spray
Frightful Fred	Ghost Sheet	Magic Wand	Right Handed	Midnight Black	Loud Whistle
Ghoulish Gabe	Mummy Wrap	Pumpkin Lantern	Right Handed	Midnight Black	Bright Flashlight
Goblin Gus	Skeleton Suit	Bat Swarm	Right Handed	Midnight Black	Bright Flashlight
Sly Sylvio	Skeleton Suit	Flying Broom	Left Handed	Midnight Black	Garlic Spray
Frankie Stein	Mummy Wrap	Flying Broom	Left Handed	Midnight Black	Garlic Spray
Vampire Vince	Ghost Sheet	Bat Swarm	Left Handed	Lime Green	Bright Flashlight

make your own at mathcrackers.com

CLUE 1 Place value

Inspect the pumpkin ticket booth numbers to unlock the first clue.

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



What is the value of the 5 in 853? ☐ → T

What is the value of the 4 in 419? ☐ → I

What is the value of the 1 in 413? ☐ → M

What is the value of the 6 in 2,621? ☐ → R

What is the value of the 2 in 3,426? ☐ → N

What is the value of the 3 in 93,861? ☐ → B

What is the value of the 7 in 7,002? ☐ → A

What is the value of the 3 in 2,430? ☐ → S

What is the value of the 4 in 4,250? ☐ → L

What is the value of the 9 in 904? ☐ → D

What is the value of the 2 in 263? ☐ → E

What is the value of the 5 in 75,289? ☐ → P

What is the value of the 3 in 329? ☐ → K

What is the value of the 6 in 7,768? ☐ → H

What is the value of the 8 in 8,694? ☐ → O

What is the value of the 4 in 649? ☐ → U

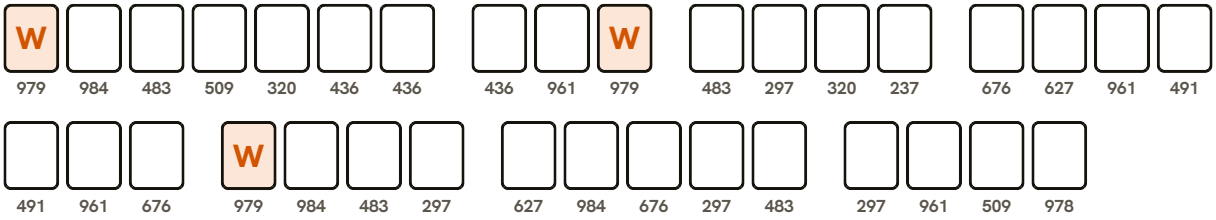
Scratch space:

CLUE 2

Addition

Count up the total treats gathered at the haunted barn.

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



460 + 519 = ☐ → W

186 + 305 = ☐ → B

482 + 496 = ☐ → D

464 + 212 = ☐ → G

459 + 525 = ☐ → I

187 + 133 = ☐ → E

327 + 300 = ☐ → R

122 + 115 = ☐ → M

383 + 578 = ☐ → A

257 + 226 = ☐ → T

266 + 243 = ☐ → N

291 + 145 = ☐ → S

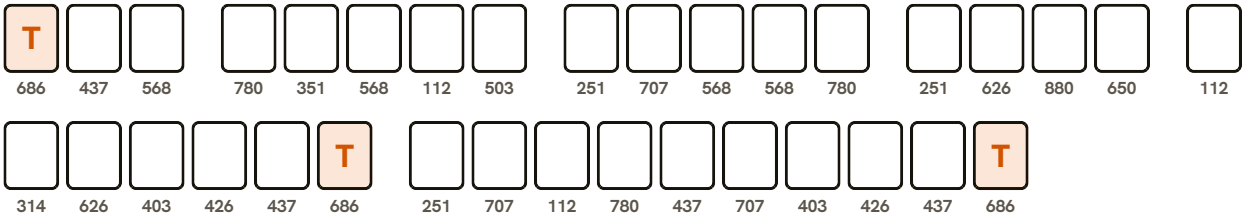
114 + 183 = ☐ → H

Scratch space:

CLUE 3 Subtraction

Find how many candy bags are missing from the pantry.

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



817 - 131 = ☐ → T

1235 - 355 = ☐ → O

406 - 3 = ☐ → I

281 - 169 = ☐ → A

331 - 80 = ☐ → F

983 - 203 = ☐ → S

466 - 115 = ☐ → N

408 - 94 = ☐ → B

653 - 85 = ☐ → E

753 - 250 = ☐ → K

769 - 143 = ☐ → R

505 - 79 = ☐ → G

849 - 199 = ☐ → M

748 - 311 = ☐ → H

812 - 105 = ☐ → L

Scratch space:

CLUE 4 Rounding

The spooky radar screen rounds all magic signals to the nearest ten.

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

S						S													
800	80	7000	3000	5000	70	800	8000	6000	700	2000	70	5000	2000	90	500	80			

20	50	3000	4000	30	500	3000	2000	7000	9000	60	7000	60	50	60	6000	80			

Round 833 to the nearest hundred ☐ → S

Round 68 to the nearest ten ☐ → D

Round 30 to the nearest ten ☐ → K

Round 8,070 to the nearest thousand ☐ → O

Round 4,989 to the nearest thousand ☐ → N

Round 54 to the nearest ten ☐ → L

Round 91 to the nearest ten ☐ → G

Round 78 to the nearest ten ☐ → T

Round 22 to the nearest ten ☐ → B

Round 4,275 to the nearest thousand ☐ → C

Round 63 to the nearest ten ☐ → E

Round 9,206 to the nearest thousand ☐ → W

Round 6,571 to the nearest thousand ☐ → R

Round 696 to the nearest hundred ☐ → M

Round 3,234 to the nearest thousand ☐ → A

Round 2,428 to the nearest thousand ☐ → I

Round 6,399 to the nearest thousand ☐ → F

Round 475 to the nearest hundred ☐ → H

Scratch space:

CLUE 5 Missing addends - the last clue

Figure out the missing number of glow sticks needed to finish the trail.

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:

9 + ___ = 19 ☐	9 + ___ = 21 ☐	2 + ___ = 3 ☐	10 + ___ = 21 ☐
3 + ___ = 11 ☐	9 + ___ = 13 ☐	6 + ___ = 12 ☐	8 + ___ = 10 ☐
7 + ___ = 14 ☐	5 + ___ = 14 ☐	10 + ___ = 15 ☐	

Step 2 - cross out the sentence with each answer:

1. The villain wore a skeleton suit, then flew away on a broom.
2. The villain put on a vampire cape, then flashed glowing eyes.
3. The villain wrapped up like a mummy, then flew away on a broom.
4. The villain wore a skeleton suit, then waved a magic wand.
5. The villain wrapped up like a mummy, then summoned a bat swarm.
6. The villain donned a witch hat, then waved a magic wand.
7. The villain donned a witch hat, then summoned a bat swarm.
8. The villain draped a ghost sheet, then waved a magic wand.
9. The villain put on a vampire cape, then flew away on a broom.
10. The villain wore a skeleton suit, then summoned a bat swarm.
11. The villain put on a vampire cape, then carried a pumpkin lantern.
12. The villain wrapped up like a mummy, then waved a magic wand.

TEACHER / PARENT

Answer Key

The Spooky Sugar Mystery

Culprit: Haunted Hannah

Mummy Wrap · Flying Broom · Right Handed · Midnight Black · Bright Flashlight

Trail: Start 21 → Clue 1 18 → Clue 2 9 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE BANDIT DID NOT USE A PUMPKIN LANTERN"

What is the value of the 5 in 853? = 50 (T) · What is the value of the 4 in 419? = 400 (I) · What is the value of the 1 in 413? = 10 (M) · What is the value of the 6 in 2,621? = 600 (R) · What is the value of the 2 in 3,426? = 20 (N) · What is the value of the 3 in 93,861? = 3000 (B) · What is the value of the 7 in 7,002? = 7000 (A) · What is the value of the 3 in 2,430? = 30 (S) · What is the value of the 4 in 4,250? = 4000 (L) · What is the value of the 9 in 904? = 900 (D) · What is the value of the 2 in 263? = 200 (E) · What is the value of the 5 in 75,289? = 5000 (P) · What is the value of the 3 in 329? = 300 (K) · What is the value of the 6 in 7,768? = 60 (H) · What is the value of the 8 in 8,694? = 8000 (O) · What is the value of the 4 in 649? = 40 (U)

Clue 2 (Addition): "WITNESS SAW THEM GRAB BAG WITH RIGHT HAND"

460 + 519 = 979 (W) · 186 + 305 = 491 (B) · 482 + 496 = 978 (D) · 464 + 212 = 676 (G) · 459 + 525 = 984 (I) · 187 + 133 = 320 (E) · 327 + 300 = 627 (R) · 122 + 115 = 237 (M) · 383 + 578 = 961 (A) · 257 + 226 = 483 (T) · 266 + 243 = 509 (N) · 291 + 145 = 436 (S) · 114 + 183 = 297 (H)

Clue 3 (Subtraction): "THE SNEAK FLEES FROM A BRIGHT FLASHLIGHT"

817 - 131 = 686 (T) · 1235 - 355 = 880 (O) · 406 - 3 = 403 (I) · 281 - 169 = 112 (A) · 331 - 80 = 251 (F) · 983 - 203 = 780 (S) · 466 - 115 = 351 (N) · 408 - 94 = 314 (B) · 653 - 85 = 568 (E) · 753 - 250 = 503 (K) · 769 - 143 = 626 (R) · 505 - 79 = 426 (G) · 849 - 199 = 650 (M) · 748 - 311 = 437 (H) · 812 - 105 = 707 (L)

Clue 4 (Rounding): "STRANDS OF MIDNIGHT BLACK HAIR WERE LEFT"

Round 833 to the nearest hundred = 800 (S) · Round 68 to the nearest ten = 70 (D) · Round 30 to the nearest ten = 30 (K) · Round 8,070 to the nearest thousand = 8000 (O) · Round 4,989 to the nearest thousand = 5000 (N) · Round 54 to the nearest ten = 50 (L) · Round 91 to the nearest ten = 90 (G) · Round 78 to the nearest ten = 80 (T) · Round 22 to the nearest ten = 20 (B) · Round 4,275 to the nearest thousand = 4000 (C) · Round 63 to the nearest ten = 60 (E) · Round 9,206 to the nearest thousand = 9000 (W) · Round 6,571 to the nearest thousand = 7000 (R) · Round 696 to the nearest hundred = 700 (M) · Round 3,234 to the nearest thousand = 3000 (A) · Round 2,428 to the nearest thousand = 2000 (I) · Round 6,399 to the nearest thousand = 6000 (F) · Round 475 to the nearest hundred = 500 (H)

Clue 5 (Missing addends): surviving statement is box 3 → Haunted Hannah

9 + ___ = 19 = 10 · 9 + ___ = 21 = 12 · 2 + ___ = 3 = 1 · 10 + ___ = 21 = 11 · 3 + ___ = 11 = 8 · 9 + ___ = 13 = 4 · 6 + ___ = 12 = 6 · 8 + ___ = 10 = 2 · 7 + ___ = 14 = 7 · 5 + ___ = 14 = 9 · 10 + ___ = 15 = 5