The Great Hat Town Caper

Grade 2 math · Addition, Subtraction, Rounding, Place value, Missing addends · Reading level grades 1-2

Detective: _____ **Date:** _____

Welcome to Hat Town! Everyone here loves hats. But last night, a sneaky Hat Swiper took the Mayor's golden crown hat. We need to find the swiper before the big Hat Parade starts!

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 Hat Swiper is _____

Possible suspects

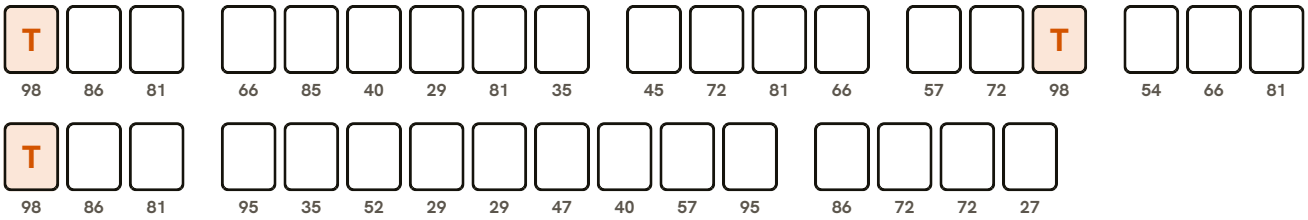
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	FAVORITE HAT	SNATCHING TOOL	SWIPER TYPE	PEEKING HAIR	WEAKNESS
Otis	Feather Cap	Giant Magnet	Boy	Neon Pink	Silly Sneeze
Benny	Chef Bonnet	Long Net Pole	Girl	Ink Black	Silly Sneeze
Leo	Straw Fedora	Suction Cup Toy	Girl	Neon Pink	Bright Flashlight
Felix	Straw Fedora	Giant Magnet	Girl	Neon Pink	Tickly Feather
Bella	Woolly Beanie	Grappling Hook	Girl	Bright Yellow	Bright Flashlight
Nora	Chef Bonnet	Sticky Gum Stick	Boy	Neon Pink	Tickly Feather
Gus	Bowler Hat	Suction Cup Toy	Girl	Neon Pink	Tickly Feather
Penny	Bowler Hat	Giant Magnet	Girl	Neon Pink	Tickly Feather
Jax	Woolly Beanie	Sticky Gum Stick	Boy	Bright Yellow	Tickly Feather
Zoe	Chef Bonnet	Sticky Gum Stick	Boy	Neon Pink	Bright Flashlight
Daisy	Feather Cap	Giant Magnet	Girl	Bright Yellow	Tickly Feather
Cleo	Bowler Hat	Grappling Hook	Girl	Neon Pink	Tickly Feather
Tedd	Straw Fedora	Giant Magnet	Girl	Ink Black	Silly Sneeze
Lily	Bowler Hat	Giant Magnet	Girl	Bright Yellow	Bright Flashlight
Coco	Straw Fedora	Sticky Gum Stick	Girl	Neon Pink	Tickly Feather
Finn	Straw Fedora	Suction Cup Toy	Boy	Neon Pink	Silly Sneeze
Pip	Straw Fedora	Grappling Hook	Boy	Ink Black	Silly Sneeze
Ruby	Chef Bonnet	Giant Magnet	Girl	Ink Black	Silly Sneeze
Toby	Feather Cap	Giant Magnet	Girl	Neon Pink	Bright Flashlight
Milo	Straw Fedora	Sticky Gum Stick	Boy	Ink Black	Tickly Feather
Zack	Bowler Hat	Sticky Gum Stick	Boy	Ink Black	Silly Sneeze

CLUE 1 Addition

> We found a pile of stolen ribbons. The detective added the red ribbons and the blue ribbons to find the secret code.

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



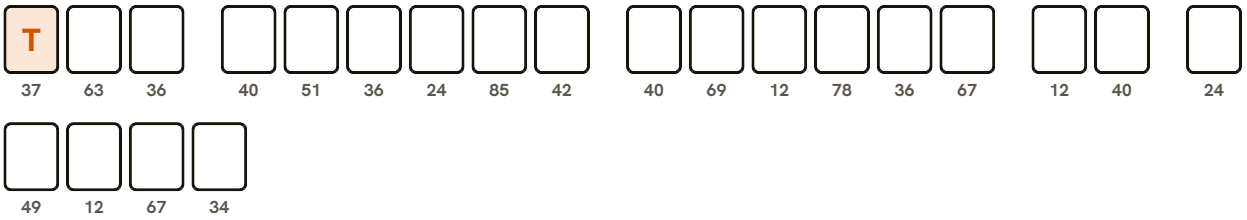
44 + 54 =		T	8 + 19 =		K	14 + 21 =		R
9 + 20 =		P	37 + 35 =		O	28 + 53 =		E
17 + 30 =		L	34 + 32 =		S	40 + 17 =		N
17 + 37 =		U	35 + 51 =		H	21 + 31 =		A
32 + 63 =		G	27 + 18 =		D	55 + 30 =		W
15 + 25 =		I						

Scratch space:

CLUE 2 Subtraction

> The Swiper dropped a bag of silver buttons. We had ten but some rolled away. Subtracting them tells us which path to take.

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



40 - 3 =		T	72 - 30 =		Y	38 - 14 =		A
83 - 20 =		H	18 - 6 =		I	55 - 4 =		N
72 - 23 =		G	108 - 39 =		W	106 - 39 =		R
108 - 30 =		P	106 - 21 =		K	80 - 40 =		S
61 - 27 =		L	48 - 12 =		E			

Scratch space:

CLUE 3 Rounding

> A wind meter recorded the Swiper's getaway speed. The meter only shows rounded numbers. Round to the nearest ten for a clue.

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

T												T											
20	400	30	600	900	40	70	700	900	50	800	20	500	300	80	200	600							

			T				
700	30	60	20	400	30	900	90

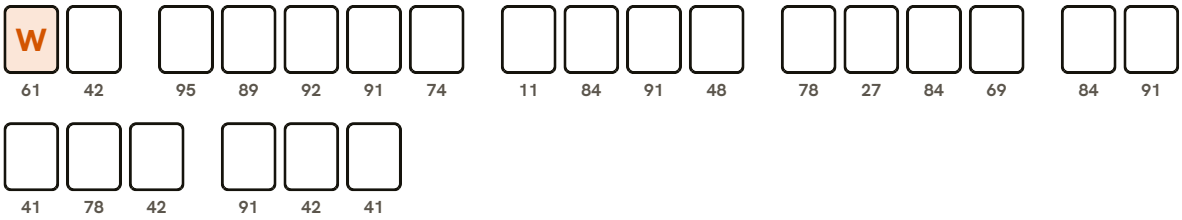
Round 18 to the nearest ten		T	Round 855 to the nearest hundred		R	Round 78 to the nearest ten		K
Round 40 to the nearest ten		U	Round 584 to the nearest hundred		Y	Round 94 to the nearest ten		S
Round 69 to the nearest ten		N	Round 740 to the nearest hundred		F	Round 767 to the nearest hundred		M
Round 50 to the nearest ten		O	Round 516 to the nearest hundred		I	Round 32 to the nearest ten		E
Round 235 to the nearest hundred		L	Round 64 to the nearest ten		A	Round 412 to the nearest hundred		H
Round 277 to the nearest hundred		C						

Scratch space:

CLUE 4 Place value (tens & ones)

> The Swiper left boxes of hat pins. Some boxes have ten pins and some have single pins. Count the tens and ones to find the clue.

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



What number has 6 tens and 1 one?		W	What number has 1 ten and 1 one?		P
What number has 9 tens and 2 ones?		U	What number has 9 tens and 5 ones?		F
What number has 4 tens and 8 ones?		K	What number has 9 tens and 1 one?		N
What number has 7 tens and 8 ones?		H	What number has 8 tens and 9 ones?		O
What number has 4 tens and 2 ones?		E	What number has 7 tens and 4 ones?		D
What number has 8 tens and 4 ones?		I	What number has 6 tens and 9 ones?		R
What number has 4 tens and 1 one?		T	What number has 2 tens and 7 ones?		A

Scratch space:

CLUE 5 Missing addends - the last clue

> The hat rack holds twelve hats but some are missing. Find the missing number to unlock the Swiper's hair color 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:

2 + ___ = 6 ☐	1 + ___ = 6 ☐	10 + ___ = 17 ☐
7 + ___ = 9 ☐	5 + ___ = 16 ☐	4 + ___ = 10 ☐
1 + ___ = 11 ☐	10 + ___ = 19 ☐	1 + ___ = 9 ☐
7 + ___ = 19 ☐	1 + ___ = 2 ☐	

Step 2 - cross out the sentence with each answer:

1. The villain steals a fuzzy winter hat, then sneaks behind the toy shop.
2. The villain snatches a blue bowler hat, then sneaks behind the toy shop.
3. The villain grabs a tall chef hat, then sneaks behind the toy shop.
4. The villain grabs a tall chef hat, then hides in the hollow oak tree.
5. The villain plucks a fancy crown hat, then zips away on a red scooter.
6. The villain steals a fuzzy winter hat, then zips away on a red scooter.
7. The villain plucks a fancy crown hat, then sneaks behind the toy shop.
8. The villain takes a sunny straw hat, then zips away on a red scooter.
9. The villain takes a sunny straw hat, then runs down the windy alley.
10. The villain steals a fuzzy winter hat, then climbs up the clock tower.
11. The villain grabs a tall chef hat, then climbs up the clock tower.
12. The villain takes a sunny straw hat, then hides in the hollow oak tree.

TEACHER / PARENT

Answer Key

The Great Hat Town Caper

Culprit: Felix

Straw Fedora · Giant Magnet · Girl · Neon Pink · Tickly Feather

Trail: Start 21 → Clue 1 18 → Clue 2 11 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE SWIPER DOES NOT USE THE GRAPPLING HOOK"

44 + 54 = 98 (T) · 8 + 19 = 27 (K) · 14 + 21 = 35 (R) · 9 + 20 = 29 (P) · 37 + 35 = 72 (O) · 28 + 53 = 81 (E) · 17 + 30 = 47 (L) · 34 + 32 = 66 (S) · 40 + 17 = 57 (N) · 17 + 37 = 54 (U) · 35 + 51 = 86 (H) · 21 + 31 = 52 (A) · 32 + 63 = 95 (G) · 27 + 18 = 45 (D) · 55 + 30 = 85 (W) · 15 + 25 = 40 (I)

Clue 2 (Subtraction): "THE SNEAKY SWIPER IS A GIRL"

40 - 3 = 37 (T) · 72 - 30 = 42 (Y) · 38 - 14 = 24 (A) · 83 - 20 = 63 (H) · 18 - 6 = 12 (I) · 55 - 4 = 51 (N) · 72 - 23 = 49 (G) · 108 - 39 = 69 (W) · 106 - 39 = 67 (R) · 108 - 30 = 78 (P) · 106 - 21 = 85 (K) · 80 - 40 = 40 (S) · 61 - 27 = 34 (L) · 48 - 12 = 36 (E)

Clue 3 (Rounding): "THEY RUN FROM TICKLY FEATHERS"

Round 18 to the nearest ten = 20 (T) · Round 855 to the nearest hundred = 900 (R) · Round 78 to the nearest ten = 80 (K) · Round 40 to the nearest ten = 40 (U) · Round 584 to the nearest hundred = 600 (Y) · Round 94 to the nearest ten = 90 (S) · Round 69 to the nearest ten = 70 (N) · Round 740 to the nearest hundred = 700 (F) · Round 767 to the nearest hundred = 800 (M) · Round 50 to the nearest ten = 50 (O) · Round 516 to the nearest hundred = 500 (I) · Round 32 to the nearest ten = 30 (E) · Round 235 to the nearest hundred = 200 (L) · Round 64 to the nearest ten = 60 (A) · Round 412 to the nearest hundred = 400 (H) · Round 277 to the nearest hundred = 300 (C)

Clue 4 (Place value (tens & ones)): "WE FOUND PINK HAIR IN THE NET"

What number has 6 tens and 1 one? = 61 (W) · What number has 1 ten and 1 one? = 11 (P) · What number has 9 tens and 2 ones? = 92 (U) · What number has 9 tens and 5 ones? = 95 (F) · What number has 4 tens and 8 ones? = 48 (K) · What number has 9 tens and 1 one? = 91 (N) · What number has 7 tens and 8 ones? = 78 (H) · What number has 8 tens and 9 ones? = 89 (O) · What number has 4 tens and 2 ones? = 42 (E) · What number has 7 tens and 4 ones? = 74 (D) · What number has 8 tens and 4 ones? = 84 (I) · What number has 6 tens and 9 ones? = 69 (R) · What number has 4 tens and 1 one? = 41 (T) · What number has 2 tens and 7 ones? = 27 (A)

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

2 + ___ = 6 = 4 · 1 + ___ = 6 = 5 · 10 + ___ = 17 = 7 · 7 + ___ = 9 = 2 · 5 + ___ = 16 = 11 · 4 + ___ = 10 = 6 · 1 + ___ = 11 = 10 · 10 + ___ = 19 = 9 · 1 + ___ = 9 = 8 · 7 + ___ = 19 = 12 · 1 + ___ = 2 = 1