The Great Rink Snack Mystery

Grade 4 math · Fractions of a number, Rounding, Addition, Subtraction · Reading level grades 3-4

Detective: _____ **Date:** _____

During the big ice hockey speedcubing tournament, someone snatched the Golden Cheese Trophy right from the snack bar counter!

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 Snack Bandit is _____

Possible suspects

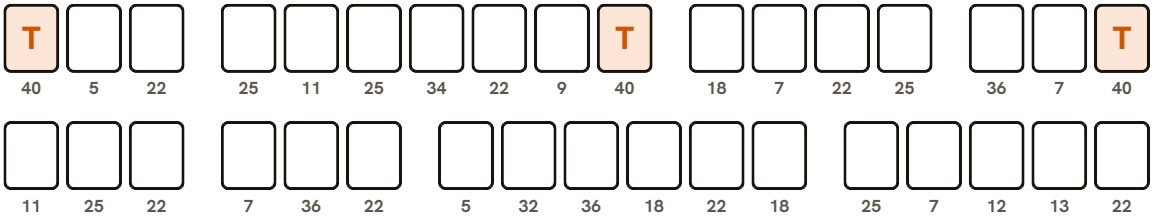
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	HOCKEY MOVE	CUBE TRICK	GLOVE HAND	HELMET STENCIL	SNACK COUNTER
Roman	Hip Check	Blindfold Solve	Right Handed Glove	Neon Blue Skater	Warm Cocoa
Sidney	Spin Move	Finger Trick	Left Handed Glove	Fiery Orange Puck	Crispy Pretzel
Patrick	Spin Move	Corner Twist	Right Handed Glove	Neon Blue Skater	Cheesy Nachos
Elias	Spin Move	Finger Trick	Left Handed Glove	Neon Blue Skater	Crispy Pretzel
Carey	Hip Check	Blindfold Solve	Right Handed Glove	Bright Yellow Grid	Warm Cocoa
Filip	Spin Move	Finger Trick	Left Handed Glove	Neon Blue Skater	Warm Cocoa
Nikita	Spin Move	Corner Twist	Right Handed Glove	Bright Yellow Grid	Crispy Pretzel
Marc	Wrist Shot	Finger Trick	Left Handed Glove	Neon Blue Skater	Crispy Pretzel
Artemi	Hip Check	Blindfold Solve	Left Handed Glove	Neon Blue Skater	Crispy Pretzel
Jonathan	Hip Check	One Handed Solve	Left Handed Glove	Bright Yellow Grid	Cheesy Nachos
Wayne	Wrist Shot	One Handed Solve	Left Handed Glove	Neon Blue Skater	Crispy Pretzel
Alexander	Poke Check	Finger Trick	Left Handed Glove	Neon Blue Skater	Cheesy Nachos
Auston	Wrist Shot	One Handed Solve	Left Handed Glove	Fiery Orange Puck	Cheesy Nachos
Jack	Spin Move	Blindfold Solve	Right Handed Glove	Fiery Orange Puck	Warm Cocoa
Leon	Spin Move	Blindfold Solve	Left Handed Glove	Bright Yellow Grid	Cheesy Nachos
Mikko	Poke Check	One Handed Solve	Left Handed Glove	Bright Yellow Grid	Cheesy Nachos
Connor	Spin Move	Corner Twist	Right Handed Glove	Neon Blue Skater	Crispy Pretzel
Mario	Slap Shot	One Handed Solve	Right Handed Glove	Neon Blue Skater	Crispy Pretzel
Mitch	Slap Shot	Blindfold Solve	Right Handed Glove	Fiery Orange Puck	Warm Cocoa
Quinn	Wrist Shot	Color Match	Left Handed Glove	Fiery Orange Puck	Crispy Pretzel
Steven	Hip Check	Color Match	Left Handed Glove	Neon Blue Skater	Crispy Pretzel

CLUE 1 Fractions of a number

> Chef Mia shared a portion of her total frozen hockey puck snacks with the team to find the first clue.

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



5/10 of 80 = ☐ → T

1/6 of 42 = ☐ → O

2/10 of 110 = ☐ → E

3/5 of 30 = ☐ → D

2/6 of 96 = ☐ → A

2/6 of 102 = ☐ → P

2/10 of 45 = ☐ → C

3/5 of 20 = ☐ → L

3/6 of 26 = ☐ → V

4/5 of 45 = ☐ → N

3/6 of 50 = ☐ → S

2/4 of 22 = ☐ → U

5/8 of 8 = ☐ → H

Scratch space:

CLUE 2 Rounding

The arena scoreboard rounded the team's total speedcube solving times to the nearest hundred.

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

W									W					
3000	30	290	2000	9000	70	70	70	4300	3000	4300	370	9000	1300	290

90	4300	2000	3700	9000	3700	500	370	900	5000	9000	900	2000	30	300	9000

Round 2,533 to the nearest thousand ☐ → W

Round 4,709 to the nearest thousand ☐ → V

Round 92 to the nearest ten ☐ → H

Round 861 to the nearest hundred ☐ → O

Round 289 to the nearest hundred ☐ → C

Round 33 to the nearest ten ☐ → I

Round 371 to the nearest ten ☐ → L

Round 1,288 to the nearest hundred ☐ → F

Round 287 to the nearest ten ☐ → T

Round 2,280 to the nearest thousand ☐ → N

Round 4,260 to the nearest hundred ☐ → A

Round 3,691 to the nearest hundred ☐ → D

Round 9,171 to the nearest thousand ☐ → E

Round 73 to the nearest ten ☐ → S

Round 491 to the nearest hundred ☐ → G

Scratch space:

CLUE 3 Addition

Coach Dan added up the total weight of hot pretzels and nachos ordered by the rink crowd.

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



1875 + 4248 = ☐ → V

3527 + 2020 = ☐ → W

3414 + 1481 = ☐ → A

1101 + 984 = ☐ → S

3281 + 3213 = ☐ → L

2254 + 4328 = ☐ → B

1651 + 1520 = ☐ → R

2303 + 1904 = ☐ → C

3619 + 2329 = ☐ → T

1985 + 1858 = ☐ → E

1935 + 3438 = ☐ → D

966 + 1073 = ☐ → I

3368 + 2406 = ☐ → N

1289 + 1349 = ☐ → P

3770 + 1701 = ☐ → Y

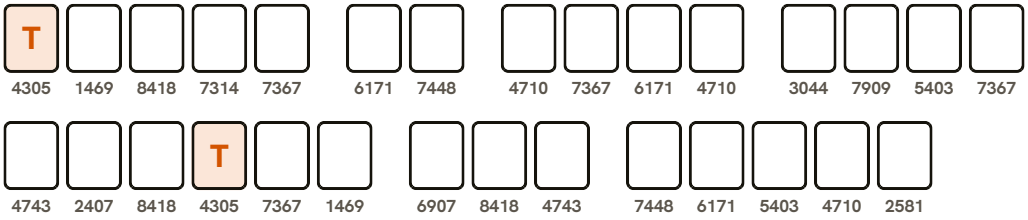
3716 + 1802 = ☐ → Z

Scratch space:

CLUE 4 Subtraction

The rink manager subtracted the missing cheese cubes from the snack bar inventory list.

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



8180 - 3875 = ☐ → T

11084 - 2666 = ☐ → A

7126 - 1723 = ☐ → U

8104 - 3394 = ☐ → N

7965 - 56 = ☐ → L

9644 - 2196 = ☐ → F

9783 - 3612 = ☐ → O

1833 - 364 = ☐ → R

8802 - 4059 = ☐ → S

10147 - 3240 = ☐ → W

3142 - 98 = ☐ → B

9149 - 1835 = ☐ → C

9928 - 2561 = ☐ → E

5613 - 3206 = ☐ → K

4855 - 2274 = ☐ → D

Scratch space:

CLUE 5 Fractions of a number - the last clue

> The head referee calculated what fraction of the souvenir hockey pucks remained unbroken.

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:

1/3 of 30 = ☐	1/10 of 120 = ☐	5/6 of 6 = ☐	1/5 of 15 = ☐
6/10 of 10 = ☐	1/5 of 45 = ☐	1/8 of 32 = ☐	3/6 of 14 = ☐
1/10 of 80 = ☐	4/8 of 4 = ☐	1/5 of 5 = ☐	

Step 2 - cross out the sentence with each answer:

1. The villain unleashed a slap shot, then did a blindfold solve.
2. The villain landed a poke check, then showed a one handed solve.
3. The villain fired a wrist shot, then did a blindfold solve.
4. The villain executed a spin move, then performed a corner twist.
5. The villain delivered a hip check, then did a blindfold solve.
6. The villain fired a wrist shot, then performed a corner twist.
7. The villain unleashed a slap shot, then performed a corner twist.
8. The villain landed a poke check, then completed a color match.
9. The villain unleashed a slap shot, then used a fast finger trick.
10. The villain executed a spin move, then used a fast finger trick.
11. The villain fired a wrist shot, then used a fast finger trick.
12. The villain delivered a hip check, then completed a color match.

TEACHER / PARENT

Answer Key

The Great Rink Snack Mystery

Culprit: Marc

Wrist Shot · Finger Trick · Left Handed Glove · Neon Blue Skater · Crispy Pretzel

Trail: Start 21 → Clue 1 16 → Clue 2 9 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Fractions of a number): "THE SUSPECT DOES NOT USE ONE HANDED SOLVE"

5/10 of 80 = 40 (T) · 1/6 of 42 = 7 (O) · 2/10 of 110 = 22 (E) · 3/5 of 30 = 18 (D) · 2/6 of 96 = 32 (A) · 2/6 of 102 = 34 (P) · 2/10 of 45 = 9 (C) · 3/5 of 20 = 12 (L) · 3/6 of 26 = 13 (V) · 4/5 of 45 = 36 (N) · 3/6 of 50 = 25 (S) · 2/4 of 22 = 11 (U) · 5/8 of 8 = 5 (H)

Clue 2 (Rounding): "WITNESS SAW A LEFT HANDED GLOVE ON ICE"

Round 2,533 to the nearest thousand = 3000 (W) · Round 4,709 to the nearest thousand = 5000 (V) · Round 92 to the nearest ten = 90 (H) · Round 861 to the nearest hundred = 900 (O) · Round 289 to the nearest hundred = 300 (C) · Round 33 to the nearest ten = 30 (I) · Round 371 to the nearest ten = 370 (L) · Round 1,288 to the nearest hundred = 1300 (F) · Round 287 to the nearest ten = 290 (T) · Round 2,280 to the nearest thousand = 2000 (N) · Round 4,260 to the nearest hundred = 4300 (A) · Round 3,691 to the nearest hundred = 3700 (D) · Round 9,171 to the nearest thousand = 9000 (E) · Round 73 to the nearest ten = 70 (S) · Round 491 to the nearest hundred = 500 (G)

Clue 3 (Addition): "VILLAIN WAS DISTRACTED BY CRISPY PRETZEL"

1875 + 4248 = 6123 (V) · 3527 + 2020 = 5547 (W) · 3414 + 1481 = 4895 (A) · 1101 + 984 = 2085 (S) · 3281 + 3213 = 6494 (L) · 2254 + 4328 = 6582 (B) · 1651 + 1520 = 3171 (R) · 2303 + 1904 = 4207 (C) · 3619 + 2329 = 5948 (T) · 1985 + 1858 = 3843 (E) · 1935 + 3438 = 5373 (D) · 966 + 1073 = 2039 (I) · 3368 + 2406 = 5774 (N) · 1289 + 1349 = 2638 (P) · 3770 + 1701 = 5471 (Y) · 3716 + 1802 = 5518 (Z)

Clue 4 (Subtraction): "TRACE OF NEON BLUE SKATER WAS FOUND"

8180 - 3875 = 4305 (T) · 11084 - 2666 = 8418 (A) · 7126 - 1723 = 5403 (U) · 8104 - 3394 = 4710 (N) · 7965 - 56 = 7909 (L) · 9644 - 2196 = 7448 (F) · 9783 - 3612 = 6171 (O) · 1833 - 364 = 1469 (R) · 8802 - 4059 = 4743 (S) · 10147 - 3240 = 6907 (W) · 3142 - 98 = 3044 (B) · 9149 - 1835 = 7314 (C) · 9928 - 2561 = 7367 (E) · 5613 - 3206 = 2407 (K) · 4855 - 2274 = 2581 (D)

Clue 5 (Fractions of a number): surviving statement is box 11 → Marc

1/3 of 30 = 10 · 1/10 of 120 = 12 · 5/6 of 6 = 5 · 1/5 of 15 = 3 · 6/10 of 10 = 6 · 1/5 of 45 = 9 · 1/8 of 32 = 4 · 3/6 of 14 = 7 · 1/10 of 80 = 8 · 4/8 of 4 = 2 · 1/5 of 5 = 1