The Case of the Crumbling Goalposts

Grade 3 math · Rounding, Addition, Subtraction, Multiplication, Division · Reading level grades 3-4

Detective: _____ **Date:** _____

Oh no! The Sunny Meadow Soccer League's championship game is ruined! Someone has sabotaged the goalposts, making them wobble and fall. Coach Connie needs the best young detectives to figure out which prankster is responsible before the big match.

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 prankster is _____

Possible suspects

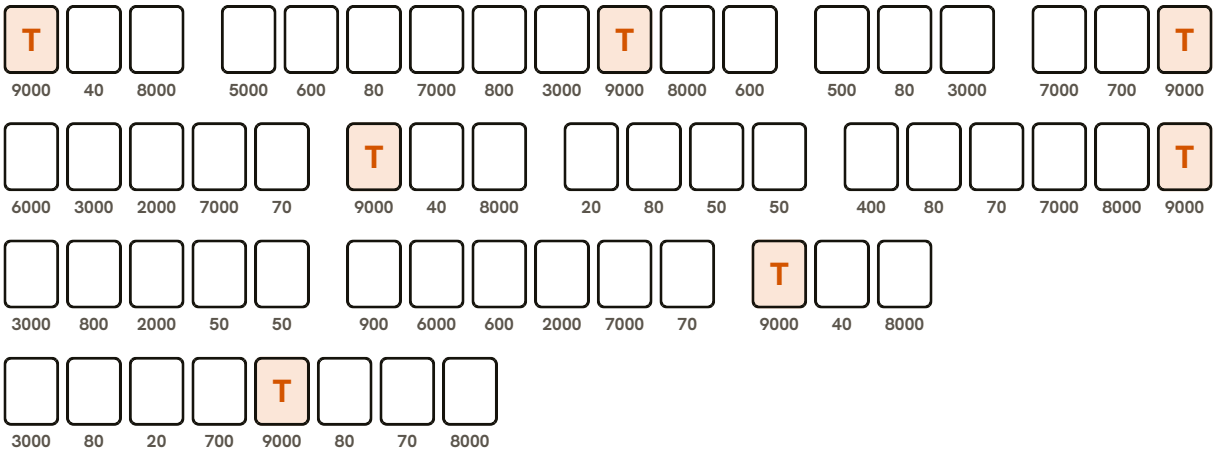
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	SPEED	DRIBBLING SKILL	PLAYER TYPE	JERSEY COLOR	FUMBLE ITEM
Maya	Comet	Sticky Feet	Defender	Blue Jersey	Slippery Cleats
Finn	Rocket	Bounce Pass	Forward	Red Jersey	Lost Ball
Hugo	Blur	Ball Magnet	Forward	Blue Jersey	Slippery Cleats
Will	Comet	Toe Tap	Forward	Blue Jersey	Slippery Cleats
Sam	Comet	Toe Tap	Forward	Blue Jersey	Lost Ball
Jake	Blur	Ball Magnet	Forward	Blue Jersey	Lost Ball
Tessa	Rocket	Sticky Feet	Forward	Red Jersey	Slippery Cleats
Xena	Whirlwind	Toe Tap	Forward	Red Jersey	Winded
Cathy	Whirlwind	Bounce Pass	Forward	Blue Jersey	Lost Ball
Benji	Whirlwind	Heel Kick	Defender	Blue Jersey	Lost Ball
Paul	Rocket	Ball Magnet	Forward	Blue Jersey	Slippery Cleats
Alexia	Flash	Bounce Pass	Defender	Blue Jersey	Lost Ball
Eliza	Comet	Sticky Feet	Forward	Green Jersey	Slippery Cleats
Quinn	Rocket	Bounce Pass	Forward	Green Jersey	Winded
Ivy	Whirlwind	Ball Magnet	Forward	Blue Jersey	Slippery Cleats
Kira	Rocket	Toe Tap	Forward	Red Jersey	Winded
Ulysses	Rocket	Bounce Pass	Forward	Green Jersey	Slippery Cleats
David	Flash	Sticky Feet	Defender	Green Jersey	Slippery Cleats
Riley	Whirlwind	Heel Kick	Forward	Blue Jersey	Slippery Cleats
Olivia	Whirlwind	Heel Kick	Forward	Blue Jersey	Lost Ball
Violet	Flash	Toe Tap	Defender	Red Jersey	Slippery Cleats

CLUE 1 Rounding

> Coach Connie checked the game clock readings after the goalposts were damaged. The display only showed rounded numbers, making it hard to tell the exact time the prank happened.

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



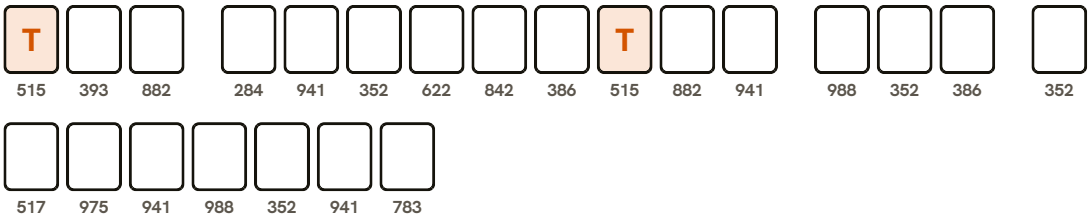
Round 8,577 to the nearest thousand		T	Round 53 to the nearest ten		L	Round 7,856 to the nearest thousand		E
Round 6,498 to the nearest thousand		U	Round 72 to the nearest ten		G	Round 79 to the nearest ten		A
Round 880 to the nearest hundred		D	Round 530 to the nearest hundred		W	Round 1,985 to the nearest thousand		I
Round 2,782 to the nearest thousand		S	Round 7,218 to the nearest thousand		N	Round 5,368 to the nearest thousand		P
Round 764 to the nearest hundred		K	Round 357 to the nearest hundred		M	Round 36 to the nearest ten		H
Round 734 to the nearest hundred		O	Round 20 to the nearest ten		B	Round 559 to the nearest hundred		R

Scratch space:

CLUE 2 Addition

> To get the goalposts back up, the groundskeeper counted all the spare parts needed. He tallied them up to see if he had enough.

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



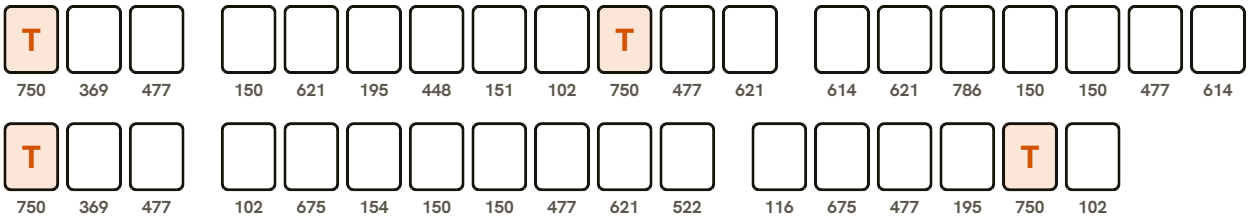
332 + 183 =		T	215 + 171 =		S	235 + 387 =		N
126 + 267 =		H	301 + 640 =		R	579 + 263 =		K
369 + 414 =		D	85 + 199 =		P	154 + 198 =		A
405 + 477 =		E	668 + 320 =		W	607 + 368 =		O
302 + 215 =		F						

Scratch space:

CLUE 3 Subtraction

> The prankster had to quickly hide the tools they used. They had to figure out how many fewer tools they had after stuffing them into their bag.

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



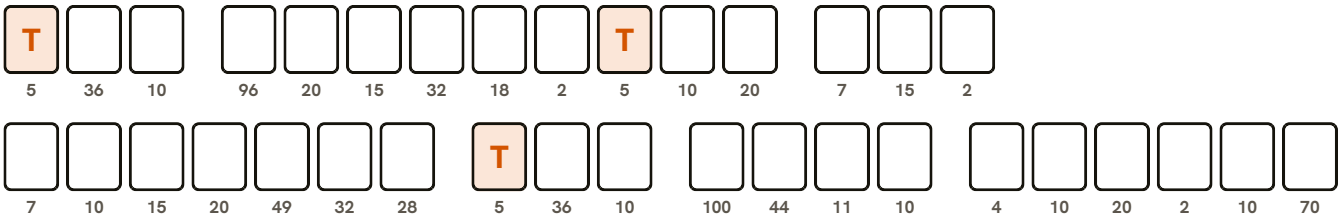
878 - 128 =		T	881 - 206 =		L	660 - 212 =		N
870 - 84 =		O	327 - 173 =		I	524 - 329 =		A
324 - 222 =		S	1004 - 390 =		D	256 - 106 =		P
448 - 79 =		H	750 - 129 =		R	508 - 31 =		E
427 - 311 =		C	300 - 149 =		K	911 - 389 =		Y

Scratch space:

CLUE 4 Multiplication facts (1-12)

> The team manager was organizing the extra soccer balls. She arranged them in neat rows to see how many there were in total.

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



1 × 5 =		T	10 × 10 =		B	3 × 6 =		K
2 × 1 =		S	11 × 4 =		L	12 × 8 =		P
7 × 7 =		I	11 × 1 =		U	12 × 3 =		H
4 × 8 =		N	1 × 10 =		E	7 × 4 =		G
3 × 5 =		A	7 × 1 =		W	2 × 10 =		R
7 × 10 =		Y	1 × 4 =		J			

Scratch space:

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

> After the prank, the prankster tried to split the remaining snacks with their friends. They wanted to make sure everyone got an equal share.

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:

28 ÷ 7 = ☐	2 ÷ 1 = ☐	132 ÷ 11 = ☐
132 ÷ 12 = ☐	21 ÷ 3 = ☐	25 ÷ 5 = ☐
9 ÷ 3 = ☐	54 ÷ 6 = ☐	56 ÷ 7 = ☐
10 ÷ 1 = ☐	42 ÷ 7 = ☐	

Step 2 - cross out the sentence with each answer:

1. The villain dashed, then passed the ball.
2. The villain zoomed, then shot the ball.
3. The villain zoomed, then dribbled the ball.
4. The villain bolted, then passed the ball.
5. The villain dashed, then shot the ball.
6. The villain scampered, then dribbled the ball.
7. The villain dashed, then kicked the ball.
8. The villain zoomed, then passed the ball.
9. The villain bolted, then trapped the ball.
10. The villain dashed, then dribbled the ball.
11. The villain sprinted, then shot the ball.
12. The villain scampered, then passed the ball.

TEACHER / PARENT

Answer Key

The Case of the Crumbling Goalposts

Culprit: Paul

Rocket · Ball Magnet · Forward · Blue Jersey · Slippery Cleats

Trail: Start 21 → Clue 1 18 → Clue 2 14 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE PRANKSTER WAS NOT USING THE BALL MAGNET SKILL DURING THE SABOTAGE"

Round 8,577 to the nearest thousand = 9000 (T) · Round 53 to the nearest ten = 50 (L) · Round 7,856 to the nearest thousand = 8000 (E) · Round 6,498 to the nearest thousand = 6000 (U) · Round 72 to the nearest ten = 70 (G) · Round 79 to the nearest ten = 80 (A) · Round 880 to the nearest hundred = 900 (D) · Round 530 to the nearest hundred = 500 (W) · Round 1,985 to the nearest thousand = 2000 (I) · Round 2,782 to the nearest thousand = 3000 (S) · Round 7,218 to the nearest thousand = 7000 (N) · Round 5,368 to the nearest thousand = 5000 (P) · Round 764 to the nearest hundred = 800 (K) · Round 357 to the nearest hundred = 400 (M) · Round 36 to the nearest ten = 40 (H) · Round 734 to the nearest hundred = 700 (O) · Round 20 to the nearest ten = 20 (B) · Round 559 to the nearest hundred = 600 (R)

Clue 2 (Addition): "THE PRANKSTER WAS A FORWARD"

332 + 183 = 515 (T) · 215 + 171 = 386 (S) · 235 + 387 = 622 (N) · 126 + 267 = 393 (H) · 301 + 640 = 941 (R) · 579 + 263 = 842 (K) · 369 + 414 = 783 (D) · 85 + 199 = 284 (P) · 154 + 198 = 352 (A) · 405 + 477 = 882 (E) · 668 + 320 = 988 (W) · 607 + 368 = 975 (O) · 302 + 215 = 517 (F)

Clue 3 (Subtraction): "THE PRANKSTER DROPPED THE SLIPPERY CLEATS"

878 - 128 = 750 (T) · 881 - 206 = 675 (L) · 660 - 212 = 448 (N) · 870 - 84 = 786 (O) · 327 - 173 = 154 (I) · 524 - 329 = 195 (A) · 324 - 222 = 102 (S) · 1004 - 390 = 614 (D) · 256 - 106 = 150 (P) · 448 - 79 = 369 (H) · 750 - 129 = 621 (R) · 508 - 31 = 477 (E) · 427 - 311 = 116 (C) · 300 - 149 = 151 (K) · 911 - 389 = 522 (Y)

Clue 4 (Multiplication facts (1-12)): "THE PRANKSTER WAS WEARING THE BLUE JERSEY"

1 × 5 = 5 (T) · 10 × 10 = 100 (B) · 3 × 6 = 18 (K) · 2 × 1 = 2 (S) · 11 × 4 = 44 (L) · 12 × 8 = 96 (P) · 7 × 7 = 49 (I) · 11 × 1 = 11 (U) · 12 × 3 = 36 (H) · 4 × 8 = 32 (N) · 1 × 10 = 10 (E) · 7 × 4 = 28 (G) · 3 × 5 = 15 (A) · 7 × 1 = 7 (W) · 2 × 10 = 20 (R) · 7 × 10 = 70 (Y) · 1 × 4 = 4 (J)

Clue 5 (Division facts (1-12)): surviving statement is box 1 → Paul

28 ÷ 7 = 4 · 2 ÷ 1 = 2 · 132 ÷ 11 = 12 · 132 ÷ 12 = 11 · 21 ÷ 3 = 7 · 25 ÷ 5 = 5 · 9 ÷ 3 = 3 · 54 ÷ 6 = 9 · 56 ÷ 7 = 8 · 10 ÷ 1 = 10 · 42 ÷ 7 = 6