

The Great Hoop Robbery

Grade 4 math · Rounding, Bar models, Addition, Subtraction, Division · Reading level grades 1-2

Detective: _____ Date: _____

The big game is tonight! But someone stole the Sparkle Trophy from the arena lockbox. Help Coach Horn find the Sneaky Dunker before tip-off!

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 Sneaky Dunker is _____

Possible suspects

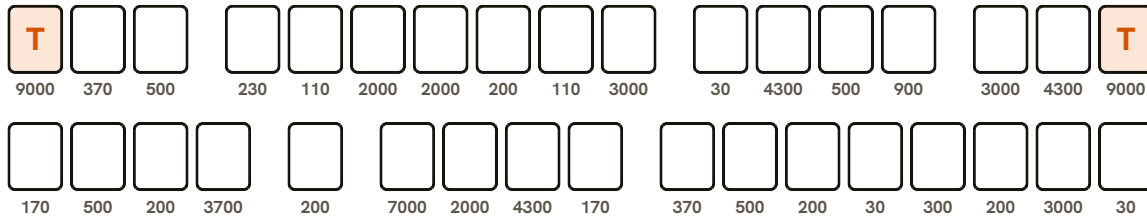
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	SIGNATURE MOVE	SPECIAL GEAR	SHOOTING HOOF	MANE COLOR	GAME FEAR
Steph Curryhorn	spark speed	glow headband	right hooved	blue mane	cold water
Prancer Pippen	teleport dunk	wing sneakers	right hooved	blue mane	loud whistles
Alley Oopcorn	teleport dunk	glow headband	left hooved	silver mane	cold water
Dirk Glowitzki	glitter block	wing sneakers	left hooved	blue mane	cold water
Giannis Glow	glitter block	glow headband	left hooved	silver mane	cold water
Larry Birdwing	teleport dunk	pink socks	right hooved	blue mane	loud whistles
Starry Durant	rainbow pass	pink socks	right hooved	blue mane	cold water
LeBron Mane	spark speed	gold shoes	left hooved	blue mane	cold water
Pegasus Pierce	horn shot	glow headband	right hooved	purple mane	loud whistles
Glitter Bird	glitter block	gold shoes	right hooved	blue mane	cold water
Bari Barkley	glitter block	wing sneakers	left hooved	blue mane	popping balloons
Kobe Hoof	teleport dunk	gold shoes	left hooved	silver mane	loud whistles
Magic Johnsoncorn	teleport dunk	glow headband	right hooved	silver mane	popping balloons
Kevin Duracorn	glitter block	star jersey	left hooved	purple mane	loud whistles
Shaq Sparkles	horn shot	pink socks	right hooved	blue mane	cold water
Jewel Embiid	teleport dunk	wing sneakers	right hooved	purple mane	cold water
Kyrie Irvinghorn	glitter block	glow headband	left hooved	blue mane	popping balloons
Spud Webbhorn	teleport dunk	wing sneakers	left hooved	blue mane	loud whistles
Dunkin Horn	rainbow pass	star jersey	left hooved	silver mane	popping balloons
Luka Magic	spark speed	pink socks	right hooved	blue mane	cold water
Hoop Sparkle	horn shot	wing sneakers	right hooved	silver mane	cold water

CLUE 1 Rounding

We use a box bar map to track the basketball paths. The lines show where the bad player jumped.

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



Round 8,839 to the nearest thousand → **T**

Round 6,930 to the nearest thousand → **G**

Round 374 to the nearest ten → **H**

Round 2,310 to the nearest thousand → **L**

Round 112 to the nearest ten → **I**

Round 170 to the nearest ten → **W**

Round 271 to the nearest hundred → **B**

Round 177 to the nearest hundred → **A**

Round 3,029 to the nearest thousand → **N**

Round 893 to the nearest hundred → **S**

Round 228 to the nearest ten → **V**

Round 4,251 to the nearest hundred → **O**

Round 531 to the nearest hundred → **E**

Round 26 to the nearest ten → **D**

Round 3,656 to the nearest hundred → **R**

Scratch space:

CLUE 2

Bar model word problems

The scoreboard screen is broken. It only shows rounded score numbers. Read the score to spot the runner.

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 R E D .

130 137 45 32 101 32 89 89 47

Coach Horn used $\frac{1}{2}$ of the rainbow whistles on the first day. The other 65 rainbow whistles were used the next day. How many rainbow whistles were there in all?

draw a bar model

Answer: → R

There were 172 star headbands in all. 35 star headbands were used. How many star headbands are left?

draw a bar model

Answer: → I

There were 85 rainbow whistles in all. 38 rainbow whistles were used. How many rainbow whistles are left?

draw a bar model

Answer: → V

Coach Horn has 4 times as many glitter balls as a teammate. The teammate has 8 glitter balls. How many glitter balls does Coach Horn have?

draw a bar model

Answer: → H

The red team has 122 glitter balls and the blue team has 21 glitter balls. How many more glitter balls does the red team have?

draw a bar model

Answer: → T

One group collected 8 glitter balls and another group collected 37 glitter balls. How many glitter balls in all?

draw a bar model

Answer: → G

Coach Horn shares 178 rainbow whistles equally among 2 teams. How many rainbow whistles does each team get?

draw a bar model

Answer: → O

CLUE 3 Addition

We need to count all the extra basketballs. We add the piles together to find the secret path.

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

T																		
4398	3491	6163	8037	9357	3931	2470	3931	6520	3931	8037	3755	9357	2908	5115	8787	2908	9713	8705

		T		
6520	3931	4398	6163	9357

$1588 + 2810 = \square \rightarrow \text{T}$	$1451 + 1457 = \square \rightarrow \text{O}$	$3823 + 4964 = \square \rightarrow \text{C}$
$2820 + 5217 = \square \rightarrow \text{Y}$	$820 + 1650 = \square \rightarrow \text{N}$	$4281 + 2239 = \square \rightarrow \text{W}$
$3187 + 2976 = \square \rightarrow \text{E}$	$2858 + 2257 = \square \rightarrow \text{M}$	$3787 + 5570 = \square \rightarrow \text{R}$
$4814 + 4899 = \square \rightarrow \text{L}$	$4228 + 4477 = \square \rightarrow \text{D}$	$1404 + 2527 = \square \rightarrow \text{A}$
$2125 + 1630 = \square \rightarrow \text{F}$	$1114 + 2377 = \square \rightarrow \text{H}$	

Scratch space:

CLUE 4

Subtraction

Some sparkly sneakers went missing from the rack. Subtract the old shoes to find who took them.

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

T																		
4188	2984	1601	8921	1893	1601	8010	1601	8921	4188	3430	4271	8010	7124	1601	6931	3430	4975	1601

2984	3430	2142	1823

$$7098 - 2910 = \div \rightarrow \div$$

$$11483 - 2562 = \div \rightarrow \div$$

$$2438 - 615 = \div \rightarrow \div$$

$$6590 - 4697 = \div \rightarrow \div$$

$$11153 - 4029 = \div \rightarrow \div$$

$$7975 - 4991 = \div \rightarrow \div$$

$$10348 - 3417 = \div \rightarrow \div$$

$$4730 - 2588 = \div \rightarrow \div$$

$$5827 - 2397 = \div \rightarrow \div$$

$$8020 - 3749 = \div \rightarrow \div$$

$$9301 - 4326 = \div \rightarrow \div$$

$$2058 - 457 = \div \rightarrow \div$$

$$10505 - 2495 = \div \rightarrow \div$$

Scratch space:

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

We split the magical sports drinks into even groups. See how they share to find 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:

$55 \div 11 = \boxed{}$

$88 \div 11 = \boxed{}$

$121 \div 11 = \boxed{}$

$6 \div 1 = \boxed{}$

$12 \div 1 = \boxed{}$

$4 \div 4 = \boxed{}$

$12 \div 4 = \boxed{}$

$7 \div 1 = \boxed{}$

$8 \div 4 = \boxed{}$

$40 \div 10 = \boxed{}$

$50 \div 5 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain throws a swift rainbow pass, then squeaks their shiny gold shoes.
2. The villain leaps for a giant glitter block, then lights up their glow headband.
3. The villain teleport dunks over the net, then flies high in wing sneakers.
4. The villain teleport dunks over the net, then squeaks their shiny gold shoes.
5. The villain throws a swift rainbow pass, then pulls up their fuzzy pink socks.
6. The villain shoots a magical horn shot, then lights up their glow headband.
7. The villain shoots a magical horn shot, then flashes their bright star jersey.
8. The villain leaps for a giant glitter block, then squeaks their shiny gold shoes.
9. The villain runs with amazing spark speed, then pulls up their fuzzy pink socks.
10. The villain teleport dunks over the net, then pulls up their fuzzy pink socks.
11. The villain shoots a magical horn shot, then pulls up their fuzzy pink socks.
12. The villain shoots a magical horn shot, then flies high in wing sneakers.

Answer Key

The Great Hoop Robbery

Culprit: Luka Magic

spark speed · pink socks · right hooved · blue mane · cold water

Trail: Start 21 → Clue 1 15 → Clue 2 8 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE VILLAIN DOES NOT WEAR A GLOW HEADBAND"

Round 8,839 to the nearest thousand = 9000 (T) · Round 6,930 to the nearest thousand = 7000 (G) · Round 374 to the nearest ten = 370 (H) · Round 2,310 to the nearest thousand = 2000 (L) · Round 112 to the nearest ten = 110 (I) · Round 170 to the nearest ten = 170 (W) · Round 271 to the nearest hundred = 300 (B) · Round 177 to the nearest hundred = 200 (A) · Round 3,029 to the nearest thousand = 3000 (N) · Round 893 to the nearest hundred = 900 (S) · Round 228 to the nearest ten = 230 (V) · Round 4,251 to the nearest hundred = 4300 (O) · Round 531 to the nearest hundred = 500 (E) · Round 26 to the nearest ten = 30 (D) · Round 3,656 to the nearest hundred = 3700 (R)

Clue 2 (Bar model word problems): "RIGHT HOOVED"

Coach Horn used $\frac{1}{2}$ of the rainbow whistles on the first day. The other 65 rainbow whistles were used the next day. How many rainbow whistles were there in all? = 130 (R) · There were 172 star headbands in all. 35 star headbands were used. How many star headbands are left? = 137 (I) · There were 85 rainbow whistles in all. 38 rainbow whistles were used. How many rainbow whistles are left? = 47 (V) · Coach Horn has 4 times as many glitter balls as a teammate. The teammate has 8 glitter balls. How many glitter balls does Coach Horn have? = 32 (H) · The red team has 122 glitter balls and the blue team has 21 glitter balls. How many more glitter balls does the red team have? = 101 (T) · One group collected 8 glitter balls and another group collected 37 glitter balls. How many glitter balls in all? = 45 (G) · Coach Horn shares 178 rainbow whistles equally among 2 teams. How many rainbow whistles does each team get? = 89 (O)

Clue 3 (Addition): "THEY RAN AWAY FROM COLD WATER"

$1588 + 2810 = 4398$ (T) · $1451 + 1457 = 2908$ (O) · $3823 + 4964 = 8787$ (C) · $2820 + 5217 = 8037$ (Y) · $820 + 1650 = 2470$ (N) · $4281 + 2239 = 6520$ (W) · $3187 + 2976 = 6163$ (E) · $2858 + 2257 = 5115$ (M) · $3787 + 5570 = 9357$ (R) · $4814 + 4899 = 9713$ (L) · $4228 + 4477 = 8705$ (D) · $1404 + 2527 = 3931$ (A) · $2125 + 1630 = 3755$ (F) · $1114 + 2377 = 3491$ (H)

Clue 4 (Subtraction): "THE FOE LEFT A BLUE MANE HAIR"

$7098 - 2910 = 4188$ (T) · $11483 - 2562 = 8921$ (F) · $2438 - 615 = 1823$ (R) · $6590 - 4697 = 1893$ (O) · $11153 - 4029 = 7124$ (U) · $7975 - 4991 = 2984$ (H) · $10348 - 3417 = 6931$ (M) · $4730 - 2588 = 2142$ (I) · $5827 - 2397 = 3430$ (A) · $8020 - 3749 = 4271$ (B) · $9301 - 4326 = 4975$ (N) · $2058 - 457 = 1601$ (E) · $10505 - 2495 = 8010$ (L)

Clue 5 (Division facts (1-12)): surviving statement is box 9 → Luka Magic

$55 \div 11 = 5$ · $88 \div 11 = 8$ · $121 \div 11 = 11$ · $6 \div 1 = 6$ · $12 \div 1 = 12$ · $4 \div 4 = 1$ · $12 \div 4 = 3$ · $7 \div 1 = 7$ · $8 \div 4 = 2$ · $40 \div 10 = 4$ · $50 \div 5 = 10$