

The Case of the Missing Golden Basketball

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

Detective: _____ Date: _____

The big Sparkle Championship game is tonight! But right before warmup, someone snuck into the locker room and stole the Golden Basketball. Sparkle Coach needs your help to crack the clues, find the thief, and save the championship game!

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 rogue hoopster is _____

Possible suspects

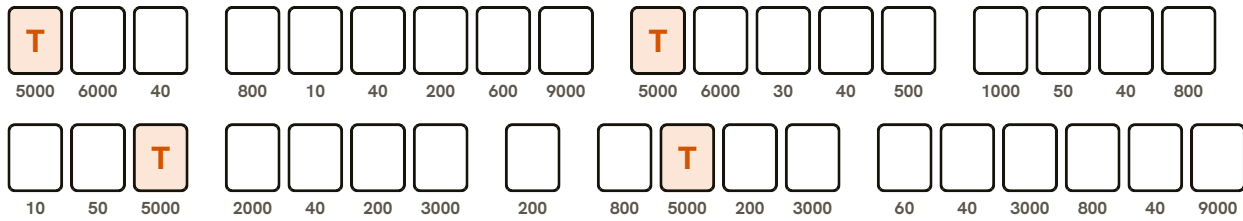
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	BASKETBALL SKILL	MAGIC GEAR	SHOOTING STYLE	MANE COLOR	FAVORITE SNACK
Comet Court	Prism Shoot	Glow Shoes	Shoots Right Hoof	Neon Pink Mane	Apple Slices
Sky Skyhook	Horn Block	Pegasus Wings	Shoots Right Hoof	Neon Pink Mane	Sugar Cubes
Shimmer Shaq	Sparkle Dribble	Star Jersey	Shoots Right Hoof	Neon Pink Mane	Apple Slices
Benny Bounce	Sparkle Dribble	Pegasus Wings	Shoots Right Hoof	Pastel Purple Mane	Carrot Crunchies
Clover Clyde	Horn Block	Golden Hooves	Shoots Left Hoof	Pastel Purple Mane	Carrot Crunchies
Bella Bounce	Sparkle Dribble	Glow Shoes	Shoots Right Hoof	Pastel Purple Mane	Sugar Cubes
Nova Net	Glitter Pass	Glow Shoes	Shoots Left Hoof	Neon Pink Mane	Carrot Crunchies
Luna Layup	Horn Block	Magic Headband	Shoots Right Hoof	Pastel Purple Mane	Carrot Crunchies
Velvet Violet	Rainbow Dunk	Pegasus Wings	Shoots Right Hoof	Bright Blue Mane	Carrot Crunchies
Dash Dribble	Prism Shoot	Glow Shoes	Shoots Left Hoof	Pastel Purple Mane	Sugar Cubes
Penny Point	Sparkle Dribble	Star Jersey	Shoots Right Hoof	Bright Blue Mane	Carrot Crunchies
Sunny Swish	Horn Block	Magic Headband	Shoots Left Hoof	Pastel Purple Mane	Apple Slices
Daisy Dunk	Horn Block	Magic Headband	Shoots Right Hoof	Pastel Purple Mane	Sugar Cubes
Mane Magic	Rainbow Dunk	Star Jersey	Shoots Right Hoof	Pastel Purple Mane	Sugar Cubes
Pippa Pivot	Horn Block	Glow Shoes	Shoots Right Hoof	Pastel Purple Mane	Sugar Cubes
Rainbow Rodman	Prism Shoot	Golden Hooves	Shoots Left Hoof	Pastel Purple Mane	Apple Slices
Stella Swish	Prism Shoot	Magic Headband	Shoots Right Hoof	Bright Blue Mane	Sugar Cubes
Goldie Glide	Sparkle Dribble	Golden Hooves	Shoots Right Hoof	Pastel Purple Mane	Sugar Cubes
Hoops McSparkle	Sparkle Dribble	Magic Headband	Shoots Right Hoof	Neon Pink Mane	Carrot Crunchies
Glitter Curry	Glitter Pass	Star Jersey	Shoots Left Hoof	Bright Blue Mane	Carrot Crunchies
Misty Meadow	Horn Block	Pegasus Wings	Shoots Right Hoof	Pastel Purple Mane	Apple Slices

CLUE 1 Place value

The scoreboard has a digital glitch that shows the suspect's jersey number using place value blocks. Let us find the correct number to unlock the clue drawer.

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



What is the value of the 5 in 15,690? → **T**

What is the value of the 5 in 2,151? → **O**

What is the value of the 8 in 7,871? → **S**

What is the value of the 6 in 6,049? → **H**

What is the value of the 4 in 149? → **E**

What is the value of the 9 in 9,524? → **Y**

What is the value of the 6 in 9,678? → **K**

What is the value of the 3 in 3,484? → **R**

What is the value of the 2 in 32,947? → **W**

What is the value of the 1 in 7,310? → **N**

What is the value of the 6 in 368? → **J**

What is the value of the 1 in 61,234? → **D**

What is the value of the 2 in 8,284? → **A**

What is the value of the 3 in 4,730? → **I**

What is the value of the 5 in 512? → **F**

Scratch space:

CLUE 2

Coach Pippa is counting all the spare basketballs left in the gym bin to see how many the team has in total. Help her add them up to find the next clue.

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

A number line from 0 to 1000. The line is divided into segments by vertical grid lines. Below the line, numbers are written in each segment. The numbers are: 336, 416, 505, 858, 407, 747, 747, 913, 407, 931, 511, 416, 631, 336, 221, 407, 336, 416, 913. The number 336 appears four times. The first 336 is highlighted with an orange background and a large orange 'T' above it. The fourth 336 is also highlighted with an orange background and a large orange 'T' above it. The other 336s are not highlighted.

$$173 + 163 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$579 + 352 = \boxed{} \rightarrow \boxed{\text{N}}$$

$$618 + 302 = \boxed{} \rightarrow \boxed{\text{G}}$$

$$188 + 134 = \boxed{} \rightarrow \boxed{\text{R}}$$

$$415 + 216 = \boxed{} \rightarrow \boxed{\text{O}}$$

$147 + 74 = \boxed{} \rightarrow \boxed{\text{W}}$

$$477 + 428 = \boxed{} \rightarrow \boxed{\text{F}}$$

$$328 + 183 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$216 + 200 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$294 + 619 = \boxed{} \rightarrow \boxed{\text{A}}$$

$$386 + 361 = \boxed{} \rightarrow \boxed{\text{L}}$$

$$172 + 235 = \boxed{} \rightarrow \boxed{\text{I}}$$

$$320 + 185 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$566 + 292 = \boxed{} \rightarrow \boxed{\mathbf{V}}$$

Scratch space:

CLUE 3 Subtraction

A few glowing sneaker gems were dropped during the quick escape. Subtract the broken ones from the total count to see what is left.

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

T																			
366	730	214	447	858	402	881	137	792	858	529	366	137	846	846	214	329	475	137	792
529	447	710	139	792	881	447	671	214	529										

$611 - 245 = \square \rightarrow \boxed{\text{T}}$	$498 - 96 = \square \rightarrow \boxed{\text{I}}$	$904 - 58 = \square \rightarrow \boxed{\text{P}}$
$605 - 276 = \square \rightarrow \boxed{\text{D}}$	$882 - 211 = \square \rightarrow \boxed{\text{B}}$	$771 - 41 = \square \rightarrow \boxed{\text{H}}$
$863 - 5 = \square \rightarrow \boxed{\text{N}}$	$930 - 138 = \square \rightarrow \boxed{\text{R}}$	$680 - 151 = \square \rightarrow \boxed{\text{S}}$
$601 - 387 = \square \rightarrow \boxed{\text{E}}$	$962 - 252 = \square \rightarrow \boxed{\text{G}}$	$580 - 133 = \square \rightarrow \boxed{\text{U}}$
$185 - 46 = \square \rightarrow \boxed{\text{A}}$	$1030 - 149 = \square \rightarrow \boxed{\text{C}}$	$340 - 203 = \square \rightarrow \boxed{\text{O}}$
$875 - 400 = \square \rightarrow \boxed{\text{F}}$		

Scratch space:

CLUE 4

Multiplication facts (1-12)

The colorful team cups are arranged in neat rows on the bench. Multiply the rows and columns to count them quickly and find a clue.

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

W																	
48	14	96	90	70	25	6	63	30	4	72	14	44	63	70	5	63	44
8	30	25	14	84	30	80	5										

$8 \times 6 = \square \rightarrow \boxed{W}$

$7 \times 2 = \square \rightarrow \boxed{E}$

$12 \times 7 = \square \rightarrow \boxed{H}$

$5 \times 1 = \square \rightarrow \boxed{R}$

$1 \times 8 = \square \rightarrow \boxed{M}$

$6 \times 1 = \square \rightarrow \boxed{D}$

$2 \times 2 = \square \rightarrow \boxed{S}$

$3 \times 10 = \square \rightarrow \boxed{A}$

$9 \times 7 = \square \rightarrow \boxed{P}$

$8 \times 12 = \square \rightarrow \boxed{F}$

$4 \times 11 = \square \rightarrow \boxed{L}$

$10 \times 9 = \square \rightarrow \boxed{O}$

$10 \times 7 = \square \rightarrow \boxed{U}$

$5 \times 5 = \square \rightarrow \boxed{N}$

$8 \times 10 = \square \rightarrow \boxed{I}$

$6 \times 12 = \square \rightarrow \boxed{T}$

Scratch space:

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

We need to share the magic snacks equally among the players. Divide the snacks to unlock our 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:

$30 \div 6 = \boxed{}$

$63 \div 9 = \boxed{}$

$11 \div 1 = \boxed{}$

$54 \div 6 = \boxed{}$

$7 \div 7 = \boxed{}$

$80 \div 10 = \boxed{}$

$90 \div 9 = \boxed{}$

$48 \div 8 = \boxed{}$

$24 \div 8 = \boxed{}$

$48 \div 4 = \boxed{}$

$16 \div 8 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain does a sparkle dribble, then flaps their pegasus wings.
2. The villain makes a glitter pass, then shines their glow shoes.
3. The villain takes a prism shoot, then flaps their pegasus wings.
4. The villain executes a horn block, then shines their glow shoes.
5. The villain does a sparkle dribble, then shines their glow shoes.
6. The villain performs a rainbow dunk, then flaps their pegasus wings.
7. The villain executes a horn block, then adjusts their magic headband.
8. The villain makes a glitter pass, then polishes their golden hooves.
9. The villain executes a horn block, then polishes their golden hooves.
10. The villain takes a prism shoot, then shows off their star jersey.
11. The villain does a sparkle dribble, then polishes their golden hooves.
12. The villain does a sparkle dribble, then adjusts their magic headband.

Answer Key

The Case of the Missing Golden Basketball

Culprit: Pippa Pivot

Horn Block · Glow Shoes · Shoots Right Hoof · Pastel Purple Mane · Sugar Cubes

Trail: Start 21 → Clue 1 17 → Clue 2 12 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE SNEAKY THIEF DOES NOT WEAR A STAR JERSEY"

What is the value of the 5 in 15,690? = 5000 (T) · What is the value of the 5 in 2,151? = 50 (O) · What is the value of the 8 in 7,871? = 800 (S) · What is the value of the 6 in 6,049? = 6000 (H) · What is the value of the 4 in 149? = 40 (E) · What is the value of the 9 in 9,524? = 9000 (Y) · What is the value of the 6 in 9,678? = 600 (K) · What is the value of the 3 in 3,484? = 3000 (R) · What is the value of the 2 in 32,947? = 2000 (W) · What is the value of the 1 in 7,310? = 10 (N) · What is the value of the 6 in 368? = 60 (J) · What is the value of the 1 in 61,234? = 1000 (D) · What is the value of the 2 in 8,284? = 200 (A) · What is the value of the 3 in 4,730? = 30 (I) · What is the value of the 5 in 512? = 500 (F)

Clue 2 (Addition): "THE VILLAIN SHOT WITH A RIGHT HOOF"

$173 + 163 = 336$ (T) · $579 + 352 = 931$ (N) · $618 + 302 = 920$ (G) · $188 + 134 = 322$ (R) · $415 + 216 = 631$ (O) · $147 + 74 = 221$ (W) · $477 + 428 = 905$ (F) · $328 + 183 = 511$ (S) · $216 + 200 = 416$ (H) · $294 + 619 = 913$ (A) · $386 + 361 = 747$ (L) · $172 + 235 = 407$ (I) · $320 + 185 = 505$ (E) · $566 + 292 = 858$ (V)

Clue 3 (Subtraction): "THE UNICORN STOPPED FOR SUGAR CUBES"

$611 - 245 = 366$ (T) · $498 - 96 = 402$ (I) · $904 - 58 = 846$ (P) · $605 - 276 = 329$ (D) · $882 - 211 = 671$ (B) · $771 - 41 = 730$ (H) · $863 - 5 = 858$ (N) · $930 - 138 = 792$ (R) · $680 - 151 = 529$ (S) · $601 - 387 = 214$ (E) · $962 - 252 = 710$ (G) · $580 - 133 = 447$ (U) · $185 - 46 = 139$ (A) · $1030 - 149 = 881$ (C) · $340 - 203 = 137$ (O) · $875 - 400 = 475$ (F)

Clue 4 (Multiplication facts (1-12)): "WE FOUND PASTEL PURPLE MANE HAIR"

$8 \times 6 = 48$ (W) · $7 \times 2 = 14$ (E) · $12 \times 7 = 84$ (H) · $5 \times 1 = 5$ (R) · $1 \times 8 = 8$ (M) · $6 \times 1 = 6$ (D) · $2 \times 2 = 4$ (S) · $3 \times 10 = 30$ (A) · $9 \times 7 = 63$ (P) · $8 \times 12 = 96$ (F) · $4 \times 11 = 44$ (L) · $10 \times 9 = 90$ (O) · $10 \times 7 = 70$ (U) · $5 \times 5 = 25$ (N) · $8 \times 10 = 80$ (I) · $6 \times 12 = 72$ (T)

Clue 5 (Division facts (1-12)): surviving statement is box 4 → Pippa Pivot

$30 \div 6 = 5$ · $63 \div 9 = 7$ · $11 \div 1 = 11$ · $54 \div 6 = 9$ · $7 \div 7 = 1$ · $80 \div 10 = 8$ · $90 \div 9 = 10$ · $48 \div 8 = 6$ · $24 \div 8 = 3$ · $48 \div 4 = 12$ · $16 \div 8 = 2$