# The Great Rainbow Hoops Mystery

Grade 5 math · Addition, Multiplication, Subtraction, Rounding, Division · Reading level grades 3-4

**Detective:** _____ **Date:** _____

Right before tip off at the championship game, someone swapped the golden trophy with a squeaky toy basketball! Detective Sparkle is on the court to solve the case.

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 Dunk Bandit is** _____

## Possible suspects

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

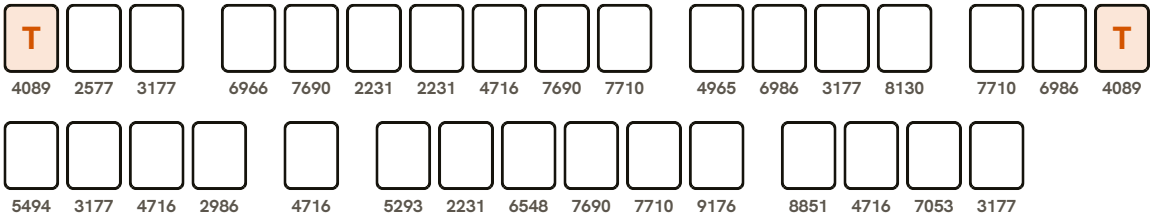
| NAME | SUPER DUNK | MAGIC GEAR | SHOOTING STYLE | MANE COLOR | DISTRACTION ITEM |
|---|---|---|---|---|---|
| **Caitlin Comet** | Star Slam | Flying Cape | Left Handed Shooter | Purple Mane | Glitter Dust |
| **Kerr Cosmic** | Rainbow Swoosh | Diamond Jersey | Left Handed Shooter | Silver Mane | Squeaky Whistle |
| **Angel Mane** | Rainbow Swoosh | Diamond Jersey | Left Handed Shooter | Pink Mane | Squeaky Whistle |
| **Popov Magic** | Sparkle Layup | Neon High Tops | Left Handed Shooter | Silver Mane | Glitter Dust |
| **Sue Birdie** | Rainbow Swoosh | Starry Wristband | Left Handed Shooter | Purple Mane | Squeaky Whistle |
| **Geno Spark** | Cosmic Spinner | Glow Goggles | Left Handed Shooter | Pink Mane | Magic Horn Polish |
| **Diana Trot** | Star Slam | Starry Wristband | Left Handed Shooter | Purple Mane | Magic Horn Polish |
| **Coach Cheryl** | Cosmic Spinner | Starry Wristband | Right Handed Shooter | Pink Mane | Magic Horn Polish |
| **Candace Cloud** | Cloud Bounce | Diamond Jersey | Right Handed Shooter | Silver Mane | Squeaky Whistle |
| **Spoelstra Shine** | Cosmic Spinner | Starry Wristband | Left Handed Shooter | Purple Mane | Magic Horn Polish |
| **Maya Star** | Rainbow Swoosh | Starry Wristband | Right Handed Shooter | Silver Mane | Magic Horn Polish |
| **Aja Rainbow** | Sparkle Layup | Neon High Tops | Left Handed Shooter | Pink Mane | Squeaky Whistle |
| **Kaitlyn Glitter** | Star Slam | Flying Cape | Left Handed Shooter | Pink Mane | Glitter Dust |
| **Paige Pegasus** | Sparkle Layup | Glow Goggles | Left Handed Shooter | Pink Mane | Squeaky Whistle |
| **Phil Jackson** | Sparkle Layup | Flying Cape | Left Handed Shooter | Pink Mane | Squeaky Whistle |
| **Hammon Hoops** | Cloud Bounce | Glow Goggles | Left Handed Shooter | Pink Mane | Glitter Dust |
| **Starry Steph** | Star Slam | Flying Cape | Left Handed Shooter | Pink Mane | Squeaky Whistle |
| **Luka Magic** | Cloud Bounce | Starry Wristband | Left Handed Shooter | Silver Mane | Squeaky Whistle |
| **LeBron Sparkle** | Rainbow Swoosh | Glow Goggles | Left Handed Shooter | Pink Mane | Squeaky Whistle |
| **Jewell Hoops** | Cloud Bounce | Diamond Jersey | Right Handed Shooter | Pink Mane | Squeaky Whistle |
| **Dawn Starlight** | Cosmic Spinner | Neon High Tops | Right Handed Shooter | Pink Mane | Squeaky Whistle |

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## CLUE 1 Addition

Detective Sparkle added up all the warm up points to unlock the trophy vault locker.

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



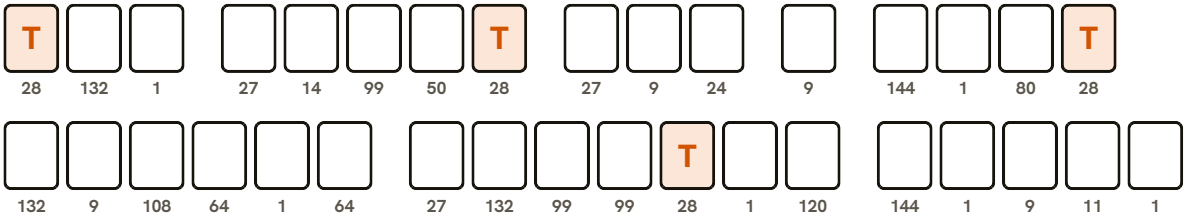

| | | |
|---|---|---|
| 1404 + 2685 = ☐ → T | 2640 + 5070 = ☐ → N | 3390 + 5786 = ☐ → G |
| 5010 + 2680 = ☐ → I | 4088 + 4763 = ☐ → C | 3251 + 3297 = ☐ → Y |
| 2512 + 2781 = ☐ → F | 2006 + 2710 = ☐ → A | 5306 + 2824 = ☐ → S |
| 3407 + 3646 = ☐ → P | 1517 + 1060 = ☐ → H | 1358 + 1628 = ☐ → R |
| 3797 + 1697 = ☐ → W | 1349 + 882 = ☐ → L | 3285 + 3701 = ☐ → O |
| 3358 + 3608 = ☐ → V | 2058 + 1119 = ☐ → E | 3142 + 1823 = ☐ → D |

Scratch space:

## CLUE 2 Multiplication facts (1-12)

> The court manager checked the racks of magic basketballs stored in equal rows.

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




4 × 7 = ☐ → T

4 × 6 = ☐ → W

12 × 11 = ☐ → H

12 × 12 = ☐ → L

10 × 5 = ☐ → U

2 × 7 = ☐ → C

12 × 10 = ☐ → R

1 × 1 = ☐ → E

11 × 1 = ☐ → V

9 × 12 = ☐ → N

9 × 11 = ☐ → O

3 × 9 = ☐ → S

8 × 10 = ☐ → F

9 × 1 = ☐ → A

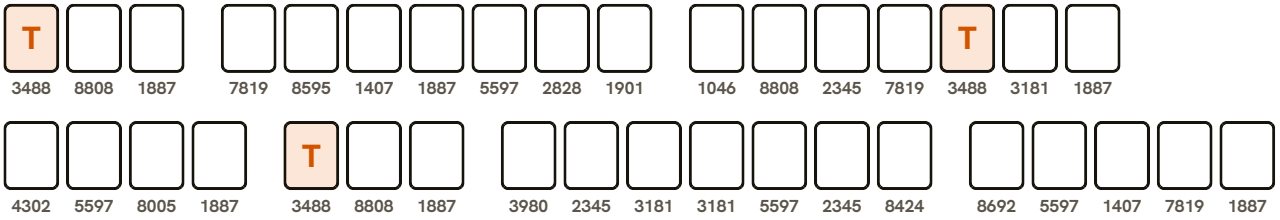
8 × 8 = ☐ → D

Scratch space:

## CLUE 3 Subtraction

> Comparing ticket counts before and after warmups revealed how many fans were missing.

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




8292 - 4804 = ☐ → T

2940 - 1039 = ☐ → Y

3577 - 1690 = ☐ → E

8921 - 4941 = ☐ → V

10961 - 3142 = ☐ → S

5685 - 88 = ☐ → A

2060 - 653 = ☐ → U

9606 - 1182 = ☐ → N

2463 - 118 = ☐ → I

11937 - 3932 = ☐ → D

10409 - 1717 = ☐ → P

6169 - 2988 = ☐ → L

8703 - 4401 = ☐ → M

3145 - 2099 = ☐ → W

9874 - 1066 = ☐ → H

13249 - 4654 = ☐ → Q

4738 - 1910 = ☐ → K

Scratch space:

## CLUE 4 Rounding

The digital scoreboard radar glitched and rounded every speed calculation to the nearest ten.

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

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | | | | | | | | | | | | | | | | | | | |
| 900 | 370 | 90 | 1700 | 200 | 70 | 90 | 3700 | 4300 | 3000 | 290 | 3700 | 70 | 7000 | 30 | 1300 | 3700 | 290 | 3700 | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | |
| 5000 | 2300 | 2000 | 90 | 7000 | 2300 | 90 | 4300 | 3000 | 3700 | 3000 | 2300 | 2300 | P | 900 | | | | | |

Round 861 to the nearest hundred ☐ → P

Round 4,349 to the nearest hundred ☐ → T

Round 1,849 to the nearest thousand ☐ → U

Round 192 to the nearest hundred ☐ → M

Round 1,742 to the nearest hundred ☐ → K

Round 26 to the nearest ten ☐ → S

Round 67 to the nearest ten ☐ → A

Round 93 to the nearest ten ☐ → N

Round 291 to the nearest ten ☐ → R

Round 6,639 to the nearest thousand ☐ → D

Round 370 to the nearest ten ☐ → I

Round 3,738 to the nearest hundred ☐ → E

Round 1,315 to the nearest hundred ☐ → W

Round 2,832 to the nearest thousand ☐ → H

Round 2,312 to the nearest hundred ☐ → O

Round 4,885 to the nearest thousand ☐ → F

Scratch space:

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

> Coach shared the remaining energy snacks equally among the star starters.

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:**

36 ÷ 6 = ☐ | 42 ÷ 6 = ☐ | 24 ÷ 2 = ☐ | 48 ÷ 12 = ☐ | 77 ÷ 7 = ☐

80 ÷ 10 = ☐ | 50 ÷ 10 = ☐ | 12 ÷ 4 = ☐ | 60 ÷ 6 = ☐ | 90 ÷ 10 = ☐

22 ÷ 11 = ☐

**Step 2 - cross out the sentence with each answer:**

1. The villain scored a sparkle layup, then laced up neon high tops.
2. The villain spun with cosmic speed, then zipped around in a flying cape.
3. The villain executed a star slam, then adjusted a starry wristband.
4. The villain executed a star slam, then flashed a diamond jersey.
5. The villain executed a star slam, then adjusted glow goggles.
6. The villain dunked with a rainbow swoosh, then flashed a diamond jersey.
7. The villain dunked with a rainbow swoosh, then adjusted glow goggles.
8. The villain scored a sparkle layup, then zipped around in a flying cape.
9. The villain bounced off a cloud, then flashed a diamond jersey.
10. The villain dunked with a rainbow swoosh, then laced up neon high tops.
11. The villain spun with cosmic speed, then laced up neon high tops.
12. The villain scored a sparkle layup, then adjusted glow goggles.

TEACHER / PARENT

# Answer Key

The Great Rainbow Hoops Mystery

## Culprit: Aja Rainbow

Sparkle Layup · Neon High Tops · Left Handed Shooter · Pink Mane · Squeaky Whistle

Trail: Start 21 → Clue 1 17 → Clue 2 12 → Clue 3 7 → Clue 4 4 → Clue 5 1

### Clue 1 (Addition): "THE VILLAIN DOES NOT WEAR A FLYING CAPE"

1404 + 2685 = 4089 (T) · 2640 + 5070 = 7710 (N) · 3390 + 5786 = 9176 (G) · 5010 + 2680 = 7690 (I) · 4088 + 4763 = 8851 (C) · 3251 + 3297 = 6548 (Y) · 2512 + 2781 = 5293 (F) · 2006 + 2710 = 4716 (A) · 5306 + 2824 = 8130 (S) · 3407 + 3646 = 7053 (P) · 1517 + 1060 = 2577 (H) · 1358 + 1628 = 2986 (R) · 3797 + 1697 = 5494 (W) · 1349 + 882 = 2231 (L) · 3285 + 3701 = 6986 (O) · 3358 + 3608 = 6966 (V) · 2058 + 1119 = 3177 (E) · 3142 + 1823 = 4965 (D)

### Clue 2 (Multiplication facts (1-12)): "THE SCOUT SAW A LEFT HANDED SHOOTER LEAVE"

4 × 7 = 28 (T) · 4 × 6 = 24 (W) · 12 × 11 = 132 (H) · 12 × 12 = 144 (L) · 10 × 5 = 50 (U) · 2 × 7 = 14 (C) · 12 × 10 = 120 (R) · 1 × 1 = 1 (E) · 11 × 1 = 11 (V) · 9 × 12 = 108 (N) · 9 × 11 = 99 (O) · 3 × 9 = 27 (S) · 8 × 10 = 80 (F) · 9 × 1 = 9 (A) · 8 × 8 = 64 (D)

### Clue 3 (Subtraction): "THE SQUEAKY WHISTLE MADE THE VILLAIN PAUSE"

8292 - 4804 = 3488 (T) · 2940 - 1039 = 1901 (Y) · 3577 - 1690 = 1887 (E) · 8921 - 4941 = 3980 (V) · 10961 - 3142 = 7819 (S) · 5685 - 88 = 5597 (A) · 2060 - 653 = 1407 (U) · 9606 - 1182 = 8424 (N) · 2463 - 118 = 2345 (I) · 11937 - 3932 = 8005 (D) · 10409 - 1717 = 8692 (P) · 6169 - 2988 = 3181 (L) · 8703 - 4401 = 4302 (M) · 3145 - 2099 = 1046 (W) · 9874 - 1066 = 8808 (H) · 13249 - 4654 = 8595 (Q) · 4738 - 1910 = 2828 (K)

### Clue 4 (Rounding): "PINK MANE THREADS WERE FOUND ON THE HOOP"

Round 861 to the nearest hundred = 900 (P) · Round 4,349 to the nearest hundred = 4300 (T) · Round 1,849 to the nearest thousand = 2000 (U) · Round 192 to the nearest hundred = 200 (M) · Round 1,742 to the nearest hundred = 1700 (K) · Round 26 to the nearest ten = 30 (S) · Round 67 to the nearest ten = 70 (A) · Round 93 to the nearest ten = 90 (N) · Round 291 to the nearest ten = 290 (R) · Round 6,639 to the nearest thousand = 7000 (D) · Round 370 to the nearest ten = 370 (I) · Round 3,738 to the nearest hundred = 3700 (E) · Round 1,315 to the nearest hundred = 1300 (W) · Round 2,832 to the nearest thousand = 3000 (H) · Round 2,312 to the nearest hundred = 2300 (O) · Round 4,885 to the nearest thousand = 5000 (F)

### Clue 5 (Division facts (1-12)): surviving statement is box 1 → Aja Rainbow

36 ÷ 6 = 6 · 42 ÷ 6 = 7 · 24 ÷ 2 = 12 · 48 ÷ 12 = 4 · 77 ÷ 7 = 11 · 80 ÷ 10 = 8 · 50 ÷ 10 = 5 · 12 ÷ 4 = 3 · 60 ÷ 6 = 10 · 90 ÷ 10 = 9 · 22 ÷ 11 = 2