



The Big Hoop Heist

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

Detective: _____ **Date:** _____

The championship trophy is gone! Right before the big game at Hoop-A-Rama Arena, someone snatched the Golden Basketball Trophy. Coach Miller needs your help. Solve the basketball math puzzles to find out which star player is actually the secret Trophy Snatcher!

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 Trophy Snatcher 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	SUPER GEAR	SHOOTING HAND	HEADBAND COLOR	COURT WEAKNESS
Rebound Rita	Lightning Spin Move	Squeaky High-Tops	Left-Handed Shooter	Green Headband	Double Team Defense
Yao	Half-Court Shot	Custom Face Mask	Left-Handed Shooter	Red Headband	Double Team Defense
Dribble Dan	Ankle-Breaker Cross	Custom Face Mask	Left-Handed Shooter	Red Headband	Double Team Defense
Muggsy	Blind No-Look Pass	Squeaky High-Tops	Left-Handed Shooter	Red Headband	Double Team Defense
Kyrie	Lightning Spin Move	Custom Face Mask	Right-Handed Shooter	Green Headband	Double Team Defense
Hoop Kid	Ankle-Breaker Cross	Glow-in-the-Dark Socks	Right-Handed Shooter	Blue Headband	Slippery Floors
Giannis	Blind No-Look Pass	Glow-in-the-Dark Socks	Left-Handed Shooter	Red Headband	Double Team Defense
Shaq	Lightning Spin Move	Gold Trim Jersey	Left-Handed Shooter	Red Headband	Slippery Floors
Backboard Ben	Lightning Spin Move	Neon Wristband	Right-Handed Shooter	Green Headband	Double Team Defense
Wemby	Blind No-Look Pass	Custom Face Mask	Left-Handed Shooter	Green Headband	Loud Buzzer Sound
Kawhi	Ankle-Breaker Cross	Custom Face Mask	Right-Handed Shooter	Red Headband	Double Team Defense
Kobe	Blind No-Look Pass	Custom Face Mask	Right-Handed Shooter	Blue Headband	Slippery Floors
Jordan	Monster Dunk	Glow-in-the-Dark Socks	Right-Handed Shooter	Green Headband	Double Team Defense
Fast Break Fred	Blind No-Look Pass	Custom Face Mask	Left-Handed Shooter	Red Headband	Double Team Defense
Netty Nick	Half-Court Shot	Gold Trim Jersey	Right-Handed Shooter	Green Headband	Slippery Floors
Spud	Lightning Spin Move	Custom Face Mask	Right-Handed Shooter	Blue Headband	Loud Buzzer Sound
Swish Sally	Lightning Spin Move	Custom Face Mask	Right-Handed Shooter	Red Headband	Loud Buzzer Sound
Dunk Master	Ankle-Breaker Cross	Custom Face Mask	Right-Handed Shooter	Red Headband	Loud Buzzer Sound
Pivot Pam	Blind No-Look Pass	Squeaky High-Tops	Right-Handed Shooter	Red Headband	Loud Buzzer Sound
LeBron	Ankle-Breaker Cross	Neon Wristband	Right-Handed Shooter	Red Headband	Double Team Defense
Luka	Blind No-Look Pass	Glow-in-the-Dark Socks	Right-Handed Shooter	Green Headband	Double Team Defense

CLUE 1 Addition

The team tallied up all the basketballs in the equipment room. Add the two groups of basketballs together to find the security camera code.

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

T						T											T
8420	5159	8626	2785	4269	4184	8420	4896	5159	8626	8729	4490	6405	8626	2785	4269	6405	8420

8828	8626	4184	8729	8014	5162	6405	8828	2785	6405	4896	4503	2785

$4605 + 3815 = \square \rightarrow \text{T}$	$5953 + 2875 = \square \rightarrow \text{W}$	$3054 + 1436 = \square \rightarrow \text{D}$
$4906 + 3823 = \square \rightarrow \text{R}$	$1626 + 3536 = \square \rightarrow \text{L}$	$3124 + 3281 = \square \rightarrow \text{O}$
$2114 + 2155 = \square \rightarrow \text{N}$	$2042 + 2461 = \square \rightarrow \text{K}$	$3910 + 4716 = \square \rightarrow \text{E}$
$850 + 1935 = \square \rightarrow \text{S}$	$2240 + 1944 = \square \rightarrow \text{A}$	$4119 + 3895 = \square \rightarrow \text{G}$
$2365 + 2531 = \square \rightarrow \text{C}$	$2812 + 2347 = \square \rightarrow \text{H}$	

Scratch space:

CLUE 2
Subtraction

Coach needs to find the difference between the red team's score and the blue team's score. Subtract the smaller score from the larger score to unlock the gym keybox.

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

T								T					T					T	
6671	2611	2363	2020	2122	2020	8652	2363	2923	6671	2020	2611	4192	4192	6671	2020	7400	7119	6671	2611

T					T					
6671	2611	2363	5349	2363	5553	6671	2611	3515	1844	8264

$8847 - 2176 = \square \rightarrow \boxed{\text{T}}$	$9976 - 2576 = \square \rightarrow \boxed{\text{W}}$	$7765 - 646 = \square \rightarrow \boxed{\text{I}}$
$10144 - 1880 = \square \rightarrow \boxed{\text{D}}$	$6481 - 4118 = \square \rightarrow \boxed{\text{E}}$	$8779 - 127 = \square \rightarrow \boxed{\text{P}}$
$6043 - 3120 = \square \rightarrow \boxed{\text{C}}$	$5849 - 4005 = \square \rightarrow \boxed{\text{N}}$	$7846 - 2293 = \square \rightarrow \boxed{\text{F}}$
$5202 - 3080 = \square \rightarrow \boxed{\text{U}}$	$7682 - 2333 = \square \rightarrow \boxed{\text{L}}$	$4849 - 2829 = \square \rightarrow \boxed{\text{S}}$
$6273 - 2081 = \square \rightarrow \boxed{\text{O}}$	$6292 - 2777 = \square \rightarrow \boxed{\text{A}}$	$7413 - 4802 = \square \rightarrow \boxed{\text{H}}$

Scratch space:

CLUE 3
Multiplication facts (1-12)

The players stand in perfect rows during practice drills. Multiply the number of rows by the players in each row to count the total wristbands.

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

T																		
8	7	35	64	5	49	49	10	5	21	3	10	21	5	11	54	5	21	10
						T												
44	88	28	12	49	35	8	35	10	84									

$8 \times 1 = \square \rightarrow$ T	$3 \times 7 = \square \rightarrow$ N	$7 \times 1 = \square \rightarrow$ H	$5 \times 7 = \square \rightarrow$ E
$10 \times 1 = \square \rightarrow$ A	$11 \times 4 = \square \rightarrow$ D	$9 \times 6 = \square \rightarrow$ S	
$7 \times 12 = \square \rightarrow$ M	$11 \times 1 = \square \rightarrow$ C	$1 \times 3 = \square \rightarrow$ P	
$4 \times 7 = \square \rightarrow$ U	$1 \times 5 = \square \rightarrow$ I	$7 \times 7 = \square \rightarrow$ L	$4 \times 3 = \square \rightarrow$ B
$8 \times 8 = \square \rightarrow$ V	$11 \times 8 = \square \rightarrow$ O		

Scratch space:

CLUE 4 Rounding

The speed radar gun clocked a fast break layup, but it only displays rounded numbers. Round the speed to the nearest ten to get the locker combination.

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

W																		
7000	200	9000	4300	290	130	2300	500	230	200	2300	1100	200	500	2300	20	500	130	2300
4300	130	1300	1100	200	20	200	130	3700	1100									

Round 6,715 to the nearest thousand → **W**

Round 1,103 to the nearest hundred → **H**

Round 3,653 to the nearest hundred → **C**

Round 19 to the nearest ten → **B**

Round 548 to the nearest hundred → **A**

Round 234 to the nearest ten → **R**

Round 288 to the nearest ten → **U**

Round 128 to the nearest ten → **N**

Round 4,285 to the nearest hundred → **O**

Round 2,271 to the nearest hundred → **D**

Round 1,318 to the nearest hundred → **T**

Round 9,105 to the nearest thousand → **F**

Round 187 to the nearest hundred → **E**

Scratch space:

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

We have a big box of energy bars to share equally among the team players. Divide the bars by the number of players to see what the mascot dropped.

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:

$4 \div 4 = \boxed{}$

$60 \div 6 = \boxed{}$

$66 \div 11 = \boxed{}$

$5 \div 1 = \boxed{}$

$77 \div 7 = \boxed{}$

$32 \div 4 = \boxed{}$

$30 \div 10 = \boxed{}$

$14 \div 7 = \boxed{}$

$60 \div 5 = \boxed{}$

$84 \div 12 = \boxed{}$

$27 \div 3 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain grabs the championship ring box, then runs down the court.
2. The villain swipes the golden ball, then zooms past the cheering fans.
3. The villain hides the trophy in a locker, then dashes into the team bus.
4. The villain sneaks past the court security, then zooms past the cheering fans.
5. The villain hides the trophy in a locker, then jumps over the snack bar.
6. The villain grabs the championship ring box, then zooms past the cheering fans.
7. The villain sneaks past the court security, then runs down the court.
8. The villain grabs the championship ring box, then dashes into the team bus.
9. The villain swipes the golden ball, then dashes into the team bus.
10. The villain hides the trophy in a locker, then zooms past the cheering fans.
11. The villain hides the trophy in a locker, then runs down the court.
12. The villain sneaks past the court security, then dashes into the team bus.

Answer Key

The Big Hoop Heist

Culprit: Dribble Dan

Ankle-Breaker Cross · Custom Face Mask · Left-Handed Shooter · Red Headband · Double Team Defense

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

Clue 1 (Addition): "THE SNATCHER DOES NOT WEAR GLOW SOCKS"

$4605 + 3815 = 8420$ (T) · $5953 + 2875 = 8828$ (W) · $3054 + 1436 = 4490$ (D) · $4906 + 3823 = 8729$ (R) · $1626 + 3536 = 5162$ (L) · $3124 + 3281 = 6405$ (O) · $2114 + 2155 = 4269$ (N) · $2042 + 2461 = 4503$ (K) · $3910 + 4716 = 8626$ (E) · $850 + 1935 = 2785$ (S) · $2240 + 1944 = 4184$ (A) · $4119 + 3895 = 8014$ (G) · $2365 + 2531 = 4896$ (C) · $2812 + 2347 = 5159$ (H)

Clue 2 (Subtraction): "THE SUSPECT SHOOTS WITH THE LEFT HAND"

$8847 - 2176 = 6671$ (T) · $9976 - 2576 = 7400$ (W) · $7765 - 646 = 7119$ (I) · $10144 - 1880 = 8264$ (D) · $6481 - 4118 = 2363$ (E) · $8779 - 127 = 8652$ (P) · $6043 - 3120 = 2923$ (C) · $5849 - 4005 = 1844$ (N) · $7846 - 2293 = 5553$ (F) · $5202 - 3080 = 2122$ (U) · $7682 - 2333 = 5349$ (L) · $4849 - 2829 = 2020$ (S) · $6273 - 2081 = 4192$ (O) · $6292 - 2777 = 3515$ (A) · $7413 - 4802 = 2611$ (H)

Clue 3 (Multiplication facts (1-12)): "THE VILLAIN PANICS IN A DOUBLE TEAM"

$8 \times 1 = 8$ (T) · $3 \times 7 = 21$ (N) · $7 \times 1 = 7$ (H) · $5 \times 7 = 35$ (E) · $10 \times 1 = 10$ (A) · $11 \times 4 = 44$ (D) · $9 \times 6 = 54$ (S) · $7 \times 12 = 84$ (M) · $11 \times 1 = 11$ (C) · $1 \times 3 = 3$ (P) · $4 \times 7 = 28$ (U) · $1 \times 5 = 5$ (I) · $7 \times 7 = 49$ (L) · $4 \times 3 = 12$ (B) · $8 \times 8 = 64$ (V) · $11 \times 8 = 88$ (O)

Clue 4 (Rounding): "WE FOUND A RED HEADBAND ON THE BENCH"

Round 6,715 to the nearest thousand = 7000 (W) · Round 1,103 to the nearest hundred = 1100 (H) · Round 3,653 to the nearest hundred = 3700 (C) · Round 19 to the nearest ten = 20 (B) · Round 548 to the nearest hundred = 500 (A) · Round 234 to the nearest ten = 230 (R) · Round 288 to the nearest ten = 290 (U) · Round 128 to the nearest ten = 130 (N) · Round 4,285 to the nearest hundred = 4300 (O) · Round 2,271 to the nearest hundred = 2300 (D) · Round 1,318 to the nearest hundred = 1300 (T) · Round 9,105 to the nearest thousand = 9000 (F) · Round 187 to the nearest hundred = 200 (E)

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

$4 \div 4 = 1$ · $60 \div 6 = 10$ · $66 \div 11 = 6$ · $5 \div 1 = 5$ · $77 \div 7 = 11$ · $32 \div 4 = 8$ · $30 \div 10 = 3$ · $14 \div 7 = 2$ · $60 \div 5 = 12$ · $84 \div 12 = 7$ · $27 \div 3 = 9$