



The Playbook Heist

Grade 7 math · Multiplication, Integers, Percentages, Order of operations, Two-step equations · Reading level grades 7-9

Detective: _____ **Date:** _____

The championship game is tonight, but disaster has struck! Coach Carter arrived at the Metro Stars training center to find the team's secret playbook stolen from the tactical vault. A shadowy figure was seen leaving the court wearing customized sneakers. We must analyze the signature moves and court habits of the top players to find the Rogue Player who sabotaged the team.

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 Player 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	SHOE SPONSOR	SHOOTING HAND	HAIRSTYLE	ON-COURT DISTRACTION
Curry	Crossover Drive	Vapor Strike Sneaker	Left-Handed Shooter	High-Top Fade	Slick Floor Sweeper
Dame	Crossover Drive	Vapor Strike Sneaker	Right-Handed Shooter	Buzz Cut	Jeering Crowds
Durant	No-Look Pass	Apex Bounce Sneaker	Right-Handed Shooter	High-Top Fade	Double-Team Traps
Kyrie	Step-Back Three	Vapor Strike Sneaker	Left-Handed Shooter	High-Top Fade	Slick Floor Sweeper
Jokic	Posterizing Dunk	Aero Shock Sneaker	Right-Handed Shooter	Buzz Cut	Slick Floor Sweeper
Ja	No-Look Pass	Quantum Shift Sneaker	Right-Handed Shooter	Dyed Dreadlocks	Jeering Crowds
Fox	Step-Back Three	Aero Shock Sneaker	Left-Handed Shooter	Dyed Dreadlocks	Jeering Crowds
George	No-Look Pass	Aero Shock Sneaker	Left-Handed Shooter	Buzz Cut	Jeering Crowds
Tatum	Crossover Drive	Apex Bounce Sneaker	Left-Handed Shooter	High-Top Fade	Double-Team Traps
Westbrook	No-Look Pass	Vapor Strike Sneaker	Left-Handed Shooter	Buzz Cut	Slick Floor Sweeper
Luka	Step-Back Three	Hyper Glide Sneaker	Left-Handed Shooter	Buzz Cut	Slick Floor Sweeper
Giannis	Posterizing Dunk	Vapor Strike Sneaker	Left-Handed Shooter	Buzz Cut	Slick Floor Sweeper
Spida	Step-Back Three	Aero Shock Sneaker	Right-Handed Shooter	Buzz Cut	Slick Floor Sweeper
Davis	Posterizing Dunk	Quantum Shift Sneaker	Right-Handed Shooter	Dyed Dreadlocks	Jeering Crowds
Adebayo	Crossover Drive	Hyper Glide Sneaker	Left-Handed Shooter	Dyed Dreadlocks	Double-Team Traps
Embiid	No-Look Pass	Apex Bounce Sneaker	Right-Handed Shooter	Dyed Dreadlocks	Slick Floor Sweeper
Booker	No-Look Pass	Quantum Shift Sneaker	Left-Handed Shooter	Buzz Cut	Slick Floor Sweeper
Klay	Skyhook Shot	Quantum Shift Sneaker	Left-Handed Shooter	Buzz Cut	Slick Floor Sweeper
Harden	No-Look Pass	Quantum Shift Sneaker	Left-Handed Shooter	High-Top Fade	Jeering Crowds
Butler	Crossover Drive	Apex Bounce Sneaker	Left-Handed Shooter	Dyed Dreadlocks	Jeering Crowds
Zion	No-Look Pass	Aero Shock Sneaker	Right-Handed Shooter	Dyed Dreadlocks	Jeering Crowds

Multiplication facts (1-12)

The arena manager calculated the total ticket revenue by multiplying the premium floor seats by their cost per ticket. This multiplication formula unlocks the locker room lockbox containing our first clue.

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

[illegible]

$1 \times 2 = \square \rightarrow \mathbf{T}$

$12 \times 5 = \boxed{} \rightarrow \boxed{\mathbf{D}}$

$3 \times 11 = \square \rightarrow \boxed{\mathbf{U}}$

$2 \times 6 = \boxed{} \rightarrow \boxed{\mathbf{A}}$

$9 \times 7 = \boxed{} \rightarrow \boxed{\mathbf{G}}$

$$8 \times 8 = \boxed{} \rightarrow \boxed{\mathbf{Y}}$$

$$9 \times 11 = \boxed{} \rightarrow \boxed{\text{C}}$$

$$5 \times 10 = \boxed{} \rightarrow \boxed{\mathbf{W}}$$

$9 \times 9 = \boxed{} \rightarrow \boxed{\text{S}}$

$$8 \times 7 = \boxed{} \rightarrow \boxed{\text{R}}$$

$$3 \times 12 = \boxed{} \rightarrow \boxed{\text{L}}$$

$$8 \times 10 = \boxed{} \rightarrow \boxed{\text{K}}$$

$$10 \times 10 = \boxed{} \rightarrow \boxed{1}$$

$12 \times 12 = \boxed{} \rightarrow \boxed{\text{P}}$

$1 \times 11 = \boxed{} \rightarrow \boxed{\mathbf{E}}$

$$12 \times 7 = \boxed{} \rightarrow \boxed{0}$$

$11 \times 10 = \boxed{} \rightarrow \boxed{\text{N}}$

$$11 \times 2 = \boxed{} \rightarrow \boxed{\text{H}}$$

Scratch space:

CLUE 2 Integers

We tracked the target's plus-minus rating on the court, recording positive numbers for made baskets and negative numbers for turnovers. Combining these integers gives us the secure gate code.

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

T										T				T				T	
20	6	27	9	23	9	28	27	15	20	9	6	24	20	19	14	20	6		

T									T				
20	6	27	14	21	30	27	5	20	6	4	7	13	

$(-1) + 21 = \square \rightarrow \boxed{\text{T}}$	$20 - (-1) = \square \rightarrow \boxed{\text{R}}$	$(-4) + 17 = \square \rightarrow \boxed{\text{D}}$
$15 - (-15) = \square \rightarrow \boxed{\text{L}}$	$(-9) + 32 = \square \rightarrow \boxed{\text{U}}$	$(-4) + 8 = \square \rightarrow \boxed{\text{A}}$
$(-15) + 34 = \square \rightarrow \boxed{\text{W}}$	$(-8) + 14 = \square \rightarrow \boxed{\text{H}}$	$(-7) + 14 = \square \rightarrow \boxed{\text{N}}$
$(-11) + 35 = \square \rightarrow \boxed{\text{O}}$	$2 - (-12) = \square \rightarrow \boxed{\text{I}}$	$13 - (-14) = \square \rightarrow \boxed{\text{E}}$
$(-14) + 23 = \square \rightarrow \boxed{\text{S}}$	$23 - (-5) = \square \rightarrow \boxed{\text{P}}$	$(-14) + 19 = \square \rightarrow \boxed{\text{F}}$
$(-2) + 17 = \square \rightarrow \boxed{\text{C}}$		

Scratch space:

CLUE 3 Percentages

The shooting coach analyzed the team's free throw percentages to see who has the most reliable shot under pressure. Finding the highest accuracy rate reveals the clue hidden in the ball rack.

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

T					T														
60	31	24	38	3	60	14	54	51	24	14	44	1	38	34	34	24	51	37	3

T					T					T
60	31	24	36	24	60	55	37	54	14	60

$40\% \text{ of } 150 = \square \rightarrow \boxed{\text{T}}$

$10\% \text{ of } 540 = \square \rightarrow \boxed{\text{U}}$

$40\% \text{ of } 85 = \square \rightarrow \boxed{\text{P}}$

$60\% \text{ of } 40 = \square \rightarrow \boxed{\text{E}}$

$20\% \text{ of } 220 = \square \rightarrow \boxed{\text{S}}$

$10\% \text{ of } 370 = \square \rightarrow \boxed{\text{O}}$

$20\% \text{ of } 180 = \square \rightarrow \boxed{\text{W}}$

$10\% \text{ of } 140 = \square \rightarrow \boxed{\text{R}}$

$20\% \text{ of } 15 = \square \rightarrow \boxed{\text{N}}$

$10\% \text{ of } 550 = \square \rightarrow \boxed{\text{C}}$

$20\% \text{ of } 255 = \square \rightarrow \boxed{\text{D}}$

$50\% \text{ of } 2 = \square \rightarrow \boxed{\text{L}}$

$10\% \text{ of } 310 = \square \rightarrow \boxed{\text{H}}$

$10\% \text{ of } 380 = \square \rightarrow \boxed{\text{I}}$

Scratch space:

CLUE 4 Order of operations

To decode the encrypted tactical board, we must solve a multi-step scoring equation, making sure to multiply the three-pointers before adding the free throws. This order of operations gives us the next detail.

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

T									T						
102	61	19	106	19	6	101	113	17	102	27	13	19	19	109	
			T											T	
6	22	114	102	101	113	19	109	22	36	101	58	58	6	101	102

$$67 + 7 \times 5 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$6 \times 10 - 2 = \boxed{} \rightarrow \boxed{\text{Z}}$$

$$4 \times 11 - 8 = \boxed{} \rightarrow \boxed{\text{B}}$$

$$2 + 2 \times 2 = \boxed{} \rightarrow \boxed{\text{C}}$$

$$93 + 8 \times 2 = \boxed{} \rightarrow \boxed{\text{D}}$$

$$50 + 8 \times 7 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$9 \times 12 - 7 = \boxed{} \rightarrow \boxed{\text{U}}$$

$$10 \times 4 - 23 = \boxed{} \rightarrow \boxed{\text{I}}$$

$$9 + 2 \times 2 = \boxed{} \rightarrow \boxed{\text{F}}$$

$$6 + 8 \times 2 = \boxed{} \rightarrow \boxed{\text{A}}$$

$$12 \times 4 - 29 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$12 \times 6 - 11 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$4 \times 12 - 21 = \boxed{} \rightarrow \boxed{\text{Y}}$$

$$90 + 3 \times 8 = \boxed{} \rightarrow \boxed{\text{P}}$$

$$89 + 8 \times 3 = \boxed{} \rightarrow \boxed{\text{R}}$$

Scratch space:

CLUE 5**Two-step equations - the last clue**

The referee keeps track of total team fouls using a variable rate based on quarters played. Solving this two-step equation reveals the final locker number where the culprit's identity is sealed.

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:

$2x + 3 = 23, x = \boxed{}$

$5x + 5 = 35, x = \boxed{}$

$3x + 1 = 37, x = \boxed{}$

$4x + 6 = 34, x = \boxed{}$

$5x + 12 = 17, x = \boxed{}$

$4x + 4 = 24, x = \boxed{}$

$4x + 10 = 18, x = \boxed{}$

$5x + 12 = 67, x = \boxed{}$

$5x + 4 = 49, x = \boxed{}$

$4x + 4 = 16, x = \boxed{}$

$2x + 11 = 27, x = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain sinks an unstoppable skyhook shot, then steals the tactical playbook from the bench.
2. The villain unleashes a rim-rattling posterizing dunk, then steals the tactical playbook from the bench.
3. The villain flashes a deceptive no-look pass, then snatches the championship trophy from the display.
4. The villain unleashes a rim-rattling posterizing dunk, then swipes the golden whistle from the referee locker.
5. The villain sinks an unstoppable skyhook shot, then snatches the championship trophy from the display.
6. The villain sinks an unstoppable skyhook shot, then gathers all the signed game balls.
7. The villain executes an ankle-breaking crossover drive, then swipes the golden whistle from the referee locker.
8. The villain executes an ankle-breaking crossover drive, then steals the tactical playbook from the bench.
9. The villain flashes a deceptive no-look pass, then plucks the championship ring from the vault.
10. The villain flashes a deceptive no-look pass, then swipes the golden whistle from the referee locker.
11. The villain performs a gravity-defying step-back three, then snatches the championship trophy from the display.
12. The villain flashes a deceptive no-look pass, then gathers all the signed game balls.

Answer Key

The Playbook Heist

Culprit: Giannis

Posterizing Dunk · Vapor Strike Sneaker · Left-Handed Shooter · Buzz Cut · Slick Floor Sweeper

Trail: Start 21 → Clue 1 19 → Clue 2 11 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE SUSPECT DOES NOT WEAR HYPER GLIDE SNEAKERS"

$1 \times 2 = 2$ (T) · $12 \times 5 = 60$ (D) · $3 \times 11 = 33$ (U) · $2 \times 6 = 12$ (A) · $9 \times 7 = 63$ (G) · $8 \times 8 = 64$ (Y) · $9 \times 11 = 99$ (C) · $5 \times 10 = 50$ (W) · $9 \times 9 = 81$ (S) · $8 \times 7 = 56$ (R) · $3 \times 12 = 36$ (L) · $8 \times 10 = 80$ (K) · $10 \times 10 = 100$ (I) · $12 \times 12 = 144$ (P) · $1 \times 11 = 11$ (E) · $12 \times 7 = 84$ (O) · $11 \times 10 = 110$ (N) · $11 \times 2 = 22$ (H)

Clue 2 (Integers): "THE SUSPECT SHOT WITH THEIR LEFT HAND"

$(-1) + 21 = 20$ (T) · $20 - (-1) = 21$ (R) · $(-4) + 17 = 13$ (D) · $15 - (-15) = 30$ (L) · $(-9) + 32 = 23$ (U) · $(-4) + 8 = 4$ (A) · $(-15) + 34 = 19$ (W) · $(-8) + 14 = 6$ (H) · $(-7) + 14 = 7$ (N) · $(-11) + 35 = 24$ (O) · $2 - (-12) = 14$ (I) · $13 - (-14) = 27$ (E) · $(-14) + 23 = 9$ (S) · $23 - (-5) = 28$ (P) · $(-14) + 19 = 5$ (F) · $(-2) + 17 = 15$ (C)

Clue 3 (Percentages): "THE INTRUDER SLIPPED ON THE WET COURT"

40% of 150 = 60 (T) · 10% of 540 = 54 (U) · 40% of 85 = 34 (P) · 60% of 40 = 24 (E) · 20% of 220 = 44 (S) · 10% of 370 = 37 (O) · 20% of 180 = 36 (W) · 10% of 140 = 14 (R) · 20% of 15 = 3 (N) · 10% of 550 = 55 (C) · 20% of 255 = 51 (D) · 50% of 2 = 1 (L) · 10% of 310 = 31 (H) · 10% of 380 = 38 (I)

Clue 4 (Order of operations): "THE SECURITY FEED CAPTURED A BUZZ CUT"

$67 + 7 \times 5 = 102$ (T) · $6 \times 10 - 2 = 58$ (Z) · $4 \times 11 - 8 = 36$ (B) · $2 + 2 \times 2 = 6$ (C) · $93 + 8 \times 2 = 109$ (D) · $50 + 8 \times 7 = 106$ (S) · $9 \times 12 - 7 = 101$ (U) · $10 \times 4 - 23 = 17$ (I) · $9 + 2 \times 2 = 13$ (F) · $6 + 8 \times 2 = 22$ (A) · $12 \times 4 - 29 = 19$ (E) · $12 \times 6 - 11 = 61$ (H) · $4 \times 12 - 21 = 27$ (Y) · $90 + 3 \times 8 = 114$ (P) · $89 + 8 \times 3 = 113$ (R)

Clue 5 (Two-step equations): surviving statement is box 4 → Giannis

$2x + 3 = 23, x = 10$ · $5x + 5 = 35, x = 6$ · $3x + 1 = 37, x = 12$ · $4x + 6 = 34, x = 7$ · $5x + 12 = 17, x = 1$ · $4x + 4 = 24, x = 5$ · $4x + 10 = 18, x = 2$ · $5x + 12 = 67, x = 11$ · $5x + 4 = 49, x = 9$ · $4x + 4 = 16, x = 3$ · $2x + 11 = 27, x = 8$