The Netherite Hoop Heist

Grade 9 math · Two-step equations, Exponents, Square roots, Integers · Reading level grades 7-9

Detective: _____ **Date:** _____

The championship game at the Square Garden is ruined! A rogue player used illegal mods, bypassed the court security, and stole the golden Netherite basketball. The Referee needs your help to decode the block coordinates and catch the thief.

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 Griefing MVP is _____

Possible suspects

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

NAME	LOOT MOD	POTION EFFECT	SHOOTING HAND	HELMET STYLE	EXPLOIT COUNTER
Kevin Durantite	slime block bounce	night vision	right handed shooter	iron crown helmet	redstone signal
Ja Morantite	ender pearl teleport	night vision	left handed shooter	gold wing headband	redstone signal
Joel Emblock	creeper blast dunk	water breathing	left handed shooter	iron crown helmet	glowstone dust
Steve Curry	fire charge shot	health boost	left handed shooter	iron crown helmet	splash water bottle
LeBron Block	ender pearl teleport	health boost	left handed shooter	diamond visor	glowstone dust
LaMelo Baller	slime block bounce	fire resistance	left handed shooter	iron crown helmet	glowstone dust
Shai Redstone	slime block bounce	slow falling	left handed shooter	iron crown helmet	glowstone dust
Devin Booker	creeper blast dunk	fire resistance	left handed shooter	iron crown helmet	redstone signal
Trae Young	speed potion sprint	slow falling	right handed shooter	iron crown helmet	glowstone dust
Jimmy Obsidian	creeper blast dunk	night vision	right handed shooter	diamond visor	glowstone dust
Luka Craftic	fire charge shot	water breathing	right handed shooter	diamond visor	glowstone dust
Jayson Tatum	fire charge shot	health boost	right handed shooter	iron crown helmet	glowstone dust
Zion Bedrock	creeper blast dunk	night vision	left handed shooter	gold wing headband	redstone signal
Giannis Anteto	ender pearl teleport	slow falling	right handed shooter	iron crown helmet	glowstone dust
Nikola Jokraft	speed potion sprint	night vision	left handed shooter	iron crown helmet	glowstone dust
Kobe Ender	speed potion sprint	water breathing	right handed shooter	iron crown helmet	glowstone dust
James Hardwood	slime block bounce	slow falling	left handed shooter	diamond visor	glowstone dust
Alex Jordan	creeper blast dunk	slow falling	left handed shooter	iron crown helmet	glowstone dust
Giannis Enderton	ender pearl teleport	slow falling	left handed shooter	gold wing headband	glowstone dust
Kyrie Ender	slime block bounce	night vision	left handed shooter	gold wing headband	redstone signal
Luka Doncic	ender pearl teleport	night vision	left handed shooter	gold wing headband	splash water bottle

CLUE 1 Two-step equations

> Coach Notch needs to balance the team inventory. Solve this equation to find how many iron ingots are left in the storage chests.

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

T								T							T						
15	21	20	8	19	8	4	20	12	15	16	3	20	8	18	3	15					
					T							T									
19	8	20	6	9	15	20	17	10	17	20	9	15	21	14	18	22					

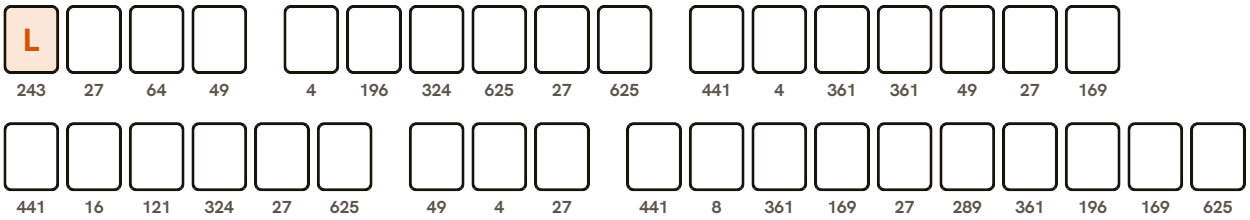
- $2x + 10 = 40$, x = ☐ → **T**
- $7x + 3 = 87$, x = ☐ → **C**
- $3x + 1 = 55$, x = ☐ → **N**
- $8x + 2 = 138$, x = ☐ → **R**
- $3x + 11 = 41$, x = ☐ → **B**
- $7x + 4 = 67$, x = ☐ → **A**
- $7x + 5 = 145$, x = ☐ → **E**
- $8x + 6 = 70$, x = ☐ → **S**
- $9x + 9 = 36$, x = ☐ → **O**
- $5x + 5 = 115$, x = ☐ → **G**
- $8x + 9 = 57$, x = ☐ → **W**
- $6x + 4 = 118$, x = ☐ → **U**
- $2x + 1 = 9$, x = ☐ → **P**
- $9x + 4 = 193$, x = ☐ → **H**
- $8x + 1 = 113$, x = ☐ → **I**
- $3x + 2 = 50$, x = ☐ → **D**

Scratch space:

CLUE 2 Exponents

> The court defense grid is powered by redstone blocks laid out in a square. Calculate the exponential power level of this core generator.

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



3^5 = ☐ → L

3^3 = ☐ → E

5^4 = ☐ → D

17^2 = ☐ → B

11^2 = ☐ → G

21^2 = ☐ → S

2^6 = ☐ → F

4^2 = ☐ → I

2^2 = ☐ → H

18^2 = ☐ → N

19^2 = ☐ → O

14^2 = ☐ → A

13^2 = ☐ → R

2^3 = ☐ → C

7^2 = ☐ → T

Scratch space:

CLUE 3 Square roots

> The arena floor is made of perfectly square obsidian plots. Find the side length of this VIP seating grid by taking the square root.

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

G												
15	4	23	20	22	5	23	21	8	24	14	22	5

9	8	6	8	19	4	8	24	5	13	8	13	16	24	24	8	21

22	21	8	19	10

sqrt(225) = ☐ → G

sqrt(441) = ☐ → N

sqrt(64) = ☐ → E

sqrt(36) = ☐ → V

sqrt(256) = ☐ → I

sqrt(16) = ☐ → L

sqrt(400) = ☐ → W

sqrt(81) = ☐ → R

sqrt(196) = ☐ → U

sqrt(25) = ☐ → T

sqrt(576) = ☐ → D

sqrt(169) = ☐ → H

sqrt(361) = ☐ → A

sqrt(529) = ☐ → O

sqrt(100) = ☐ → K

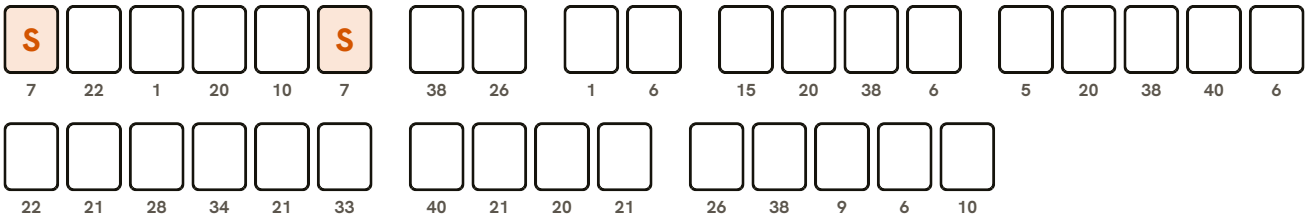
sqrt(484) = ☐ → S

Scratch space:

CLUE 4 Integers

> The game score keeps fluctuating as players lose points for fouls and gain points for dunks. Track these negative and positive changes.

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



(-10) + 17 = ☐ → S

27 - (-6) = ☐ → T

27 - (-1) = ☐ → L

(-11) + 45 = ☐ → M

(-15) + 21 = ☐ → N

(-4) + 14 = ☐ → D

(-2) + 24 = ☐ → H

34 - (-6) = ☐ → W

(-15) + 53 = ☐ → O

(-9) + 18 = ☐ → U

14 - (-1) = ☐ → I

(-9) + 10 = ☐ → A

(-6) + 27 = ☐ → E

1 - (-4) = ☐ → C

(-7) + 27 = ☐ → R

20 - (-6) = ☐ → F

Scratch space:

CLUE 5 Two-step equations - the last clue

> To unlock the secure gear locker, the referee must solve this lock code based on the weight of gold blocks and chest plates.

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:

5x + 10 = 25, x = ☐	4x + 1 = 9, x = ☐	3x + 5 = 41, x = ☐	7x + 7 = 35, x = ☐
3x + 5 = 23, x = ☐	2x + 11 = 31, x = ☐	9x + 3 = 66, x = ☐	6x + 3 = 9, x = ☐
7x + 10 = 45, x = ☐	5x + 11 = 66, x = ☐	9x + 10 = 82, x = ☐	

Step 2 - cross out the sentence with each answer:

1. The villain sprints with a speed potion to steal the ball, then dives into the court drainage water.
2. The villain sprints with a speed potion to steal the ball, then escapes into the dark using night vision.
3. The villain blasts a creeper dunk that shatters the backboard, then floats away gently using slow falling.
4. The villain blasts a creeper dunk that shatters the backboard, then dives into the court drainage water.
5. The villain blasts a creeper dunk that shatters the backboard, then marches through lava with fire resistance.
6. The villain sprints with a speed potion to steal the ball, then floats away gently using slow falling.
7. The villain uses a fire charge shot to clear the court, then tanks through defense blocks with a health boost.
8. The villain teleports with an ender pearl past the defense, then tanks through defense blocks with a health boost.
9. The villain bounces off a slime block to reach the hoop, then floats away gently using slow falling.
10. The villain teleports with an ender pearl past the defense, then marches through lava with fire resistance.
11. The villain blasts a creeper dunk that shatters the backboard, then escapes into the dark using night vision.
12. The villain bounces off a slime block to reach the hoop, then marches through lava with fire resistance.

TEACHER / PARENT

Answer Key

The Netherite Hoop Heist

Culprit: Shai Redstone

slime block bounce · slow falling · left handed shooter · iron crown helmet · glowstone dust

Trail: Start 21 → Clue 1 18 → Clue 2 13 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Two-step equations): "THE SUSPECT DOES NOT USE WATER BREATHING"

2x + 10 = 40, x = 15 (T) · 7x + 3 = 87, x = 12 (C) · 3x + 1 = 55, x = 18 (N) · 8x + 2 = 138, x = 17 (R) · 3x + 11 = 41, x = 10 (B) · 7x + 4 = 67, x = 9 (A) · 7x + 5 = 145, x = 20 (E) · 8x + 6 = 70, x = 8 (S) · 9x + 9 = 36, x = 3 (O) · 5x + 5 = 115, x = 22 (G) · 8x + 9 = 57, x = 6 (W) · 6x + 4 = 118, x = 19 (U) · 2x + 1 = 9, x = 4 (P) · 9x + 4 = 193, x = 21 (H) · 8x + 1 = 113, x = 14 (I) · 3x + 2 = 50, x = 16 (D)

Clue 2 (Exponents): "LEFT HANDED SHOOTER SIGNED THE SCOREBOARD"

3^5 = 243 (L) · 3^3 = 27 (E) · 5^4 = 625 (D) · 17^2 = 289 (B) · 11^2 = 121 (G) · 21^2 = 441 (S) · 2^6 = 64 (F) · 4^2 = 16 (I) · 2^2 = 4 (H) · 18^2 = 324 (N) · 19^2 = 361 (O) · 14^2 = 196 (A) · 13^2 = 169 (R) · 2^3 = 8 (C) · 7^2 = 49 (T)

Clue 3 (Square roots): "GLOWSTONE DUST REVEALED THE HIDDEN SNEAK"

sqrt(225) = 15 (G) · sqrt(441) = 21 (N) · sqrt(64) = 8 (E) · sqrt(36) = 6 (V) · sqrt(256) = 16 (I) · sqrt(16) = 4 (L) · sqrt(400) = 20 (W) · sqrt(81) = 9 (R) · sqrt(196) = 14 (U) · sqrt(25) = 5 (T) · sqrt(576) = 24 (D) · sqrt(169) = 13 (H) · sqrt(361) = 19 (A) · sqrt(529) = 23 (O) · sqrt(100) = 10 (K) · sqrt(484) = 22 (S)

Clue 4 (Integers): "SHARDS OF AN IRON CROWN HELMET WERE FOUND"

(-10) + 17 = 7 (S) · 27 - (-6) = 33 (T) · 27 - (-1) = 28 (L) · (-11) + 45 = 34 (M) · (-15) + 21 = 6 (N) · (-4) + 14 = 10 (D) · (-2) + 24 = 22 (H) · 34 - (-6) = 40 (W) · (-15) + 53 = 38 (O) · (-9) + 18 = 9 (U) · 14 - (-1) = 15 (I) · (-9) + 10 = 1 (A) · (-6) + 27 = 21 (E) · 1 - (-4) = 5 (C) · (-7) + 27 = 20 (R) · 20 - (-6) = 26 (F)

Clue 5 (Two-step equations): surviving statement is box 9 → Shai Redstone

5x + 10 = 25, x = 3 · 4x + 1 = 9, x = 2 · 3x + 5 = 41, x = 12 · 7x + 7 = 35, x = 4 · 3x + 5 = 23, x = 6 · 2x + 11 = 31, x = 10 · 9x + 3 = 66, x = 7 · 6x + 3 = 9, x = 1 · 7x + 10 = 45, x = 5 · 5x + 11 = 66, x = 11 · 9x + 10 = 82, x = 8