



The Blockhaven Server Sabotage

Grade 6 math · Percentages, Exponents, Order of operations, Multiplication, Division · Reading level grades 5-6

Detective: _____ Date: _____

Someone has grieved the grand castle monument of Blockhaven, filling the throne room with water blocks and stealing the community chest! As the server admin, you must track down the culprit before the next server reboot.

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 Griefer is _____

Possible suspects

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

NAME	GRIEFING METHOD	IN-GAME GEAR	DOMINANT HAND	HELMET CHOICE	VULNERABILITY
Sapnap	tnt blast	totem of undying	holds sword in left hand	gold helmet	splash water bottle
Steve	wither skull launch	elytra wings	holds sword in left hand	iron helmet	splash water bottle
Stampy	tnt blast	fire resistance potion	holds sword in left hand	gold helmet	charged creeper blast
Notch	ender pearl teleport	elytra wings	holds sword in left hand	gold helmet	splash water bottle
Skeppy	phantom swoop	fire resistance potion	holds sword in right hand	leather cap	splash water bottle
Jerome	lava bucket drop	netherite armor	holds sword in left hand	gold helmet	splash water bottle
Grian	tnt blast	netherite armor	holds sword in left hand	iron helmet	splash water bottle
Technoblade	lava bucket drop	fire resistance potion	holds sword in left hand	leather cap	charged creeper blast
Aphmau	tnt blast	diamond pickaxe	holds sword in right hand	gold helmet	splash water bottle
CaptainSparklez	lava bucket drop	elytra wings	holds sword in left hand	iron helmet	chiseled obsidian trap
Unspeakable	tnt blast	fire resistance potion	holds sword in right hand	leather cap	chiseled obsidian trap
DanTDM	phantom swoop	netherite armor	holds sword in left hand	iron helmet	charged creeper blast
LDShadowLady	lava bucket drop	fire resistance potion	holds sword in right hand	leather cap	splash water bottle
TommyInnit	wither skull launch	fire resistance potion	holds sword in left hand	gold helmet	charged creeper blast
Alex	ender pearl teleport	elytra wings	holds sword in right hand	iron helmet	splash water bottle
George	tnt blast	diamond pickaxe	holds sword in left hand	gold helmet	splash water bottle
Ranboo	wither skull launch	elytra wings	holds sword in right hand	iron helmet	charged creeper blast
EthosLab	ender pearl teleport	diamond pickaxe	holds sword in left hand	gold helmet	splash water bottle
Preston	phantom swoop	netherite armor	holds sword in right hand	leather cap	splash water bottle
Jeb	ender pearl teleport	fire resistance potion	holds sword in right hand	iron helmet	splash water bottle
Mumbo	tnt blast	fire resistance potion	holds sword in left hand	leather cap	charged creeper blast

CLUE 1 Percentages

A damaged anvil in the blacksmith shop shows the percent of durability remaining. Calculate the exact iron loss to decode the first lead.

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

45 5 40 38 11 13 40 17 40 11 4 1 40 42 20 1 45

5 3 23 40 3 45 1 45 40 15 1 17 31 20 4 21 13 20 38

5% of 900 = $\rightarrow$ **T**

50% of 42 = → **Y**

25% of 152 = → **G**

50% of 8 = $\rightarrow$ **D**

20% of 5 = →

60% of 5 = → **A**

10% of 130 = $\rightarrow$

20% of 100 = → **N**

20% of 85 = → **F**

20% of 155 = → **U**

25% of 168 = → **S**

40% of 100 = → **E**

10% of 230 = $\rightarrow$ **V**

50% of 10 = → **H**

50% of 22 = → **R**

20% of 75 = $\rightarrow$ **M**

Scratch space:

CLUE 2

The suspect multiplied their redstone signal strength by squaring the repeater delays. Solve the power output to reveal the next clue.

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

Diagram illustrating the multiplication table for the group G (order 20). The table is shown in two rows of boxes. The first row contains 16 boxes, and the second row contains 12 boxes. The boxes are labeled with elements of the group, and the multiplication results are shown in the boxes below them. The elements are arranged in two rows of 10 each, with the last two elements of each row being 243 and 8.

Row 1 elements: 243, 8, 27, 289, 81, 289, 324, 27, 400, 243, 289, 100, 4, 361, 169, 289, 100, 4, 243, 8.

Row 2 elements: 243, 8, 27, 4, 16, 125, 27, 196, 243, 8, 216, 361, 32.

$$3^5 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$2^2 = \boxed{} \rightarrow \boxed{1}$$

$$3^3 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$17^2 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$10^2 = \boxed{} \rightarrow \boxed{W}$$

$$19^2 = \boxed{} \rightarrow \boxed{\text{N}}$$

$6^3 = \boxed{} \rightarrow \boxed{\text{A}}$

$$2^3 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$5^3 = \boxed{} \rightarrow \boxed{\text{L}}$$

$$13^2 = \boxed{} \rightarrow \boxed{\text{G}}$$

$$2^5 = \boxed{} \rightarrow \boxed{\text{D}}$$

$$4^2 = \boxed{} \rightarrow \boxed{\mathbf{R}}$$

$$9^2 = \boxed{} \rightarrow \boxed{\text{U}}$$

$$14^2 = \boxed{} \rightarrow \boxed{\text{F}}$$

$$18^2 = \boxed{} \rightarrow \boxed{\text{P}}$$

$$20^2 = \boxed{} \rightarrow \boxed{\text{C}}$$

Scratch space:

Order of operations

We found a complex brewing stand recipe with multiple steps of adding ingredients. Follow the order of operations to find the secret code.

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

$$3 \times 10^{-23} = \boxed{} \rightarrow \boxed{\text{T}}$$

$$5 \times 9 - 1 = \boxed{} \rightarrow \boxed{\mathbf{G}}$$

$$10 \times 6 - 15 = \boxed{} \rightarrow \boxed{\text{A}}$$

$$4 \times 12 - 20 = \boxed{} \rightarrow \boxed{\mathbf{B}}$$

$$5 \times 4 - 10 = \boxed{} \rightarrow \boxed{\text{F}}$$

$$7 \times 10^{-13} = \boxed{} \rightarrow \boxed{\text{U}}$$

$$23 + 9 \times 2 = \boxed{} \rightarrow \boxed{\mathbf{R}}$$

$$47 + 4 \times 3 = \boxed{} \rightarrow \mathbf{E}$$

$$62 + 7 \times 2 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$6 \times 11 - 29 = \boxed{} \rightarrow \boxed{\text{W}}$$

$18 + 6 \times 7 = \boxed{} \rightarrow \boxed{\text{S}}$

$9 \times 3 - 14 = \boxed{} \rightarrow \boxed{0}$

$8 + 7 \times 2 = \boxed{} \rightarrow \boxed{\text{L}}$

$$6 \times 9 - 7 = \boxed{} \rightarrow \boxed{\text{Y}}$$

$$11 \times 8 - 13 = \boxed{} \rightarrow \boxed{\text{I}}$$

Scratch space:

CLUE 4

Multiplication facts (1-12)

The griever left a trail of chests arranged in equal rows and columns. Multiply the grid size to pinpoint where they fled.

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

G							G	G											
77	4	6	120	144	6	120	77	77	22	4	108	33	80	4	84	80	144		
24	1	14	96	42	24	66	80	14	80	4	80	81	144	55	80	33	6	120	108

$7 \times 11 = \square \rightarrow \text{G}$

$5 \times 11 = \square \rightarrow \text{B}$

$7 \times 6 = \square \rightarrow \text{P}$

$1 \times 1 = \square \rightarrow \text{C}$

$2 \times 7 = \square \rightarrow \text{R}$

$2 \times 11 = \square \rightarrow \text{O}$

$2 \times 2 = \square \rightarrow \text{L}$

$12 \times 9 = \square \rightarrow \text{D}$

$10 \times 12 = \square \rightarrow \text{N}$

$3 \times 2 = \square \rightarrow \text{I}$

$12 \times 8 = \square \rightarrow \text{A}$

$6 \times 11 = \square \rightarrow \text{W}$

$12 \times 12 = \square \rightarrow \text{T}$

$12 \times 7 = \square \rightarrow \text{M}$

$3 \times 11 = \square \rightarrow \text{H}$

$3 \times 8 = \square \rightarrow \text{S}$

$10 \times 8 = \square \rightarrow \text{E}$

$9 \times 9 = \square \rightarrow \text{F}$

Scratch space:

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

To bribe the local villagers for info, we must divide our stack of emeralds equally. Find each villager's share to unlock the final witness report.

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:

$63 \div 7 = \boxed{}$

$20 \div 10 = \boxed{}$

$110 \div 10 = \boxed{}$

$80 \div 10 = \boxed{}$

$8 \div 8 = \boxed{}$

$35 \div 5 = \boxed{}$

$4 \div 1 = \boxed{}$

$40 \div 8 = \boxed{}$

$66 \div 11 = \boxed{}$

$100 \div 10 = \boxed{}$

$24 \div 2 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain swooped down from the night sky, then saved themselves with a totem of undying.
2. The villain poured lava all over the wheat farm, then shrugged off the arrows with netherite armor.
3. The villain blew up the village bridge with tnt, then mined through the wall with a diamond pickaxe.
4. The villain blew up the village bridge with tnt, then shrugged off the arrows with netherite armor.
5. The villain teleported onto the castle roof, then drank a glowing fire resistance potion.
6. The villain shot a wither skull at the monument, then saved themselves with a totem of undying.
7. The villain poured lava all over the wheat farm, then drank a glowing fire resistance potion.
8. The villain shot a wither skull at the monument, then flew away using glided elytra wings.
9. The villain teleported onto the castle roof, then mined through the wall with a diamond pickaxe.
10. The villain poured lava all over the wheat farm, then mined through the wall with a diamond pickaxe.
11. The villain teleported onto the castle roof, then flew away using glided elytra wings.
12. The villain blew up the village bridge with tnt, then flew away using glided elytra wings.

Answer Key

The Blockhaven Server Sabotage

Culprit: George

tnt blast · diamond pickaxe · holds sword in left hand · gold helmet · splash water bottle

Trail: Start 21 → Clue 1 20 → Clue 2 12 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Percentages): "THE GRIEFER DOES NOT HAVE A TOTEM OF UNDYING"

5% of 900 = 45 (T) · 50% of 42 = 21 (Y) · 25% of 152 = 38 (G) · 50% of 8 = 4 (D) · 20% of 5 = 1 (O) · 60% of 5 = 3 (A) · 10% of 130 = 13 (I) · 20% of 100 = 20 (N) · 20% of 85 = 17 (F) · 20% of 155 = 31 (U) · 25% of 168 = 42 (S) · 40% of 100 = 40 (E) · 10% of 230 = 23 (V) · 50% of 10 = 5 (H) · 50% of 22 = 11 (R) · 20% of 75 = 15 (M)

Clue 2 (Exponents): "THE SUSPECT SWINGS WITH THEIR LEFT HAND"

$3^5 = 243$ (T) · $2^2 = 4$ (I) · $3^3 = 27$ (E) · $17^2 = 289$ (S) · $10^2 = 100$ (W) · $19^2 = 361$ (N) · $6^3 = 216$ (A) · $2^3 = 8$ (H) · $5^3 = 125$ (L) · $13^2 = 169$ (G) · $2^5 = 32$ (D) · $4^2 = 16$ (R) · $9^2 = 81$ (U) · $14^2 = 196$ (F) · $18^2 = 324$ (P) · $20^2 = 400$ (C)

Clue 3 (Order of operations): "THE GRIEFER WAS HURT BY A WATER BOTTLE"

$3 \times 10 - 23 = 7$ (T) · $5 \times 9 - 1 = 44$ (G) · $10 \times 6 - 15 = 45$ (A) · $4 \times 12 - 20 = 28$ (B) · $5 \times 4 - 10 = 10$ (F) · $7 \times 10 - 13 = 57$ (U) · $23 + 9 \times 2 = 41$ (R) · $47 + 4 \times 3 = 59$ (E) · $62 + 7 \times 2 = 76$ (H) · $6 \times 11 - 29 = 37$ (W) · $18 + 6 \times 7 = 60$ (S) · $9 \times 3 - 14 = 13$ (O) · $8 + 7 \times 2 = 22$ (L) · $6 \times 9 - 7 = 47$ (Y) · $11 \times 8 - 13 = 75$ (I)

Clue 4 (Multiplication facts (1-12)): "GLINTING GOLD HELMET SCRAPS WERE LEFT BEHIND"

$7 \times 11 = 77$ (G) · $5 \times 11 = 55$ (B) · $7 \times 6 = 42$ (P) · $1 \times 1 = 1$ (C) · $2 \times 7 = 14$ (R) · $2 \times 11 = 22$ (O) · $2 \times 2 = 4$ (L) · $12 \times 9 = 108$ (D) · $10 \times 12 = 120$ (N) · $3 \times 2 = 6$ (I) · $12 \times 8 = 96$ (A) · $6 \times 11 = 66$ (W) · $12 \times 12 = 144$ (T) · $12 \times 7 = 84$ (M) · $3 \times 11 = 33$ (H) · $3 \times 8 = 24$ (S) · $10 \times 8 = 80$ (E) · $9 \times 9 = 81$ (F)

Clue 5 (Division facts (1-12)): surviving statement is box 3 → George

$63 \div 7 = 9$ · $20 \div 10 = 2$ · $110 \div 10 = 11$ · $80 \div 10 = 8$ · $8 \div 8 = 1$ · $35 \div 5 = 7$ · $4 \div 1 = 4$ · $40 \div 8 = 5$ · $66 \div 11 = 6$ · $100 \div 10 = 10$ · $24 \div 2 = 12$