



The Bedrock Griefing Incident

Grade 10 math · Pythagorean theorem, Square roots, Exponents, Order of operations · Reading level grades 7-9

Detective: _____ **Date:** _____

A mysterious rogue player has hijacked the server's master command block, trapping the Master Architect's base inside an unbreakable bedrock cage. We need to inspect the leftover blocks, inventory files, and redstone logs to reveal the Griefer's true identity.

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 Master 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	ESCAPE GEAR	COMBAT STANCE	HEADGEAR	TACTICAL WEAKNESS
WitherWill	TNT blasting	totem of undying	uses offhand shield	golden helmet	splash potion of slowness
Mumbo	lava casting	ender pearls	uses offhand shield	golden helmet	smite enchant
Jeb	bedrock hacking	netherite armor	holds map in offhand	chainmail helmet	smite enchant
Alex	bedrock hacking	netherite armor	uses offhand shield	turtle shell	bucket of water
ObsidianRex	phantom summoning	ender pearls	holds map in offhand	golden helmet	bucket of water
Hermit	lava casting	elytra wings	uses offhand shield	chainmail helmet	smite enchant
Steve	bedrock hacking	totem of undying	uses offhand shield	golden helmet	smite enchant
Sparky	bedrock hacking	ender pearls	uses offhand shield	chainmail helmet	bucket of water
NetherKnight	redstone looping	enchanted golden apple	holds map in offhand	turtle shell	smite enchant
CaptainSparklez	lava casting	ender pearls	holds map in offhand	golden helmet	smite enchant
GhastGuy	phantom summoning	netherite armor	uses offhand shield	golden helmet	smite enchant
BlazeBill	bedrock hacking	enchanted golden apple	uses offhand shield	golden helmet	splash potion of slowness
CobaltCraft	TNT blasting	totem of undying	holds map in offhand	golden helmet	splash potion of slowness
Grian	lava casting	netherite armor	uses offhand shield	turtle shell	smite enchant
LapisLuke	redstone looping	ender pearls	uses offhand shield	turtle shell	smite enchant
CreeperSam	lava casting	totem of undying	uses offhand shield	golden helmet	bucket of water
DanTDM	TNT blasting	netherite armor	holds map in offhand	chainmail helmet	smite enchant
DiamondDave	lava casting	enchanted golden apple	uses offhand shield	golden helmet	smite enchant
RedstonePro	TNT blasting	elytra wings	holds map in offhand	golden helmet	smite enchant
Blocky	TNT blasting	elytra wings	uses offhand shield	chainmail helmet	smite enchant
EnderBoy	TNT blasting	ender pearls	uses offhand shield	golden helmet	smite enchant

CLUE 1

Pythagorean theorem

To calculate the distance between the griever's getaway boat and the shore, we must find the hypotenuse of the right triangle formed by the coordinates. Solve the formula to trace the escape path.

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

V											
82	50	52	52	123	50	74	29	123	41	74	26

116	74	34	29	123	74	17	116	25	111	26	52	25	116	74	123	58	58	52	116

legs 18 and 80, hypotenuse = → **V**

legs 40 and 42, hypotenuse = → **P**

legs 8 and 15, hypotenuse = → **T**

legs 14 and 48, hypotenuse = → **I**

legs 20 and 21, hypotenuse = → **H**

legs 16 and 30, hypotenuse = → **C**

legs 36 and 105, hypotenuse = → **G**

legs 27 and 120, hypotenuse = → **A**

legs 9 and 40, hypotenuse = → **S**

legs 15 and 20, hypotenuse = → **D**

legs 80 and 84, hypotenuse = → **E**

legs 24 and 70, hypotenuse = → **N**

legs 10 and 24, hypotenuse = → **O**

legs 20 and 48, hypotenuse = → **L**

Scratch space:

CLUE 2 Square roots

The griever fenced off a perfectly square plot of obsidian blocks. We need to find the side length of this square region from its total area to locate the hidden chest.

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

S							S									S						
18	23	8	20	5	4		18	2	11	15	24	2	23	20	18	22	20	11	20			
10	12	16	3	4			12	3								4	12	12	11	22	15	17

$\sqrt{324} = \square \rightarrow$ S	$\sqrt{256} = \square \rightarrow$ U	$\sqrt{225} = \square \rightarrow$ A
$\sqrt{16} = \square \rightarrow$ D	$\sqrt{121} = \square \rightarrow$ R	$\sqrt{4} = \square \rightarrow$ C
$\sqrt{100} = \square \rightarrow$ F	$\sqrt{64} = \square \rightarrow$ I	$\sqrt{25} = \square \rightarrow$ L
$\sqrt{9} = \square \rightarrow$ N	$\sqrt{144} = \square \rightarrow$ O	$\sqrt{484} = \square \rightarrow$ W
$\sqrt{400} = \square \rightarrow$ E	$\sqrt{289} = \square \rightarrow$ Y	$\sqrt{576} = \square \rightarrow$ T
$\sqrt{529} = \square \rightarrow$ H		

Scratch space:

CLUE 3 Exponents

The redstone signal multiplies rapidly, doubling its power strength with each tick. Calculate the exponential growth of the pulse to disable the security lock.

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

T													T						
36	216	324	441	4	25	64	144	400	324	121	169	36	169	49	8	343	25	121	

		T					T								T
8	64	36	216	49	128	64	36	324	324	144	4	216	169	144	36

$6^2 = \square \rightarrow \text{T}$	$4^3 = \square \rightarrow \text{I}$	$11^2 = \square \rightarrow \text{D}$	$5^2 = \square \rightarrow \text{R}$
$13^2 = \square \rightarrow \text{A}$	$2^2 = \square \rightarrow \text{C}$	$2^7 = \square \rightarrow \text{M}$	$12^2 = \square \rightarrow \text{N}$
$2^3 = \square \rightarrow \text{W}$	$20^2 = \square \rightarrow \text{G}$	$7^3 = \square \rightarrow \text{O}$	$7^2 = \square \rightarrow \text{S}$
$18^2 = \square \rightarrow \text{E}$	$6^3 = \square \rightarrow \text{H}$	$21^2 = \square \rightarrow \text{Y}$	

Scratch space:

CLUE 4
Order of operations

Our crafting recipe analyzer got jumbled up by a virus. Follow the strict order of operations to count the exact number of raw materials needed for the antidote.

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

G																	G	
63	49	29	82	64	62	23	64	72	55	29	54	47	55	57	107	62	63	54
99	64	71	64	29	64	117	72	49	62	72	47	64	55	62	57	107	29	

$53 + 5 \times 2 = \square \rightarrow \text{G}$

$9 \times 12 - 26 = \square \rightarrow \text{D}$

$33 + 2 \times 7 = \square \rightarrow \text{H}$

$17 + 5 \times 8 = \square \rightarrow \text{V}$

$11 \times 11 - 14 = \square \rightarrow \text{I}$

$3 \times 10 - 7 = \square \rightarrow \text{M}$

$10 \times 10 - 28 = \square \rightarrow \text{T}$

$8 \times 9 - 10 = \square \rightarrow \text{N}$

$39 + 5 \times 5 = \square \rightarrow \text{E}$

$8 \times 9 - 1 = \square \rightarrow \text{R}$

$54 + 5 \times 9 = \square \rightarrow \text{W}$

$11 \times 12 - 15 = \square \rightarrow \text{F}$

$4 \times 11 - 15 = \square \rightarrow \text{L}$

$9 \times 7 - 9 = \square \rightarrow \text{S}$

$11 \times 6 - 17 = \square \rightarrow \text{O}$

$46 + 3 \times 3 = \square \rightarrow \text{A}$

Scratch space:

CLUE 5**Square roots - the last clue**

The bedrock cage is built on a square chunk base. Solve for the root of the chunk's total block area to find the coordinates of the command block.

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:

$\text{sqrt}(49) = \boxed{}$

$\text{sqrt}(144) = \boxed{}$

$\text{sqrt}(4) = \boxed{}$

$\text{sqrt}(81) = \boxed{}$

$\text{sqrt}(121) = \boxed{}$

$\text{sqrt}(16) = \boxed{}$

$\text{sqrt}(36) = \boxed{}$

$\text{sqrt}(25) = \boxed{}$

$\text{sqrt}(1) = \boxed{}$

$\text{sqrt}(64) = \boxed{}$

$\text{sqrt}(9) = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain summoned a swarm of screeching phantoms in the sky, then escaped death using a golden totem of undying.
2. The villain summoned a swarm of screeching phantoms in the sky, then escaped by flying away with elytra wings.
3. The villain poured molten lava over the town hall, then restored health with an enchanted golden apple.
4. The villain created an infinite loop of noisy redstone piston machines, then restored health with an enchanted golden apple.
5. The villain placed unbreakable blocks around the spawn portal, then teleported away using a shiny ender pearl.
6. The villain blasted a giant crater in the spawn area, then escaped death using a golden totem of undying.
7. The villain placed unbreakable blocks around the spawn portal, then escaped death using a golden totem of undying.
8. The villain created an infinite loop of noisy redstone piston machines, then tanked the guards with heavy netherite armor.
9. The villain blasted a giant crater in the spawn area, then tanked the guards with heavy netherite armor.
10. The villain poured molten lava over the town hall, then teleported away using a shiny ender pearl.
11. The villain created an infinite loop of noisy redstone piston machines, then escaped death using a golden totem of undying.
12. The villain blasted a giant crater in the spawn area, then teleported away using a shiny ender pearl.

Answer Key

The Bedrock Griefing Incident

Culprit: Mumbo

lava casting · ender pearls · uses offhand shield · golden helmet · smite enchant

Trail: Start 21 → Clue 1 18 → Clue 2 12 → Clue 3 8 → Clue 4 4 → Clue 5 1

Clue 1 (Pythagorean theorem): "VILLAIN HAS NO ENCHANTED GOLDEN APPLE"

legs 18 and 80, hypotenuse = 82 (V) · legs 40 and 42, hypotenuse = 58 (P) · legs 8 and 15, hypotenuse = 17 (T) · legs 14 and 48, hypotenuse = 50 (I) · legs 20 and 21, hypotenuse = 29 (H) · legs 16 and 30, hypotenuse = 34 (C) · legs 36 and 105, hypotenuse = 111 (G) · legs 27 and 120, hypotenuse = 123 (A) · legs 9 and 40, hypotenuse = 41 (S) · legs 15 and 20, hypotenuse = 25 (D) · legs 80 and 84, hypotenuse = 116 (E) · legs 24 and 70, hypotenuse = 74 (N) · legs 10 and 24, hypotenuse = 26 (O) · legs 20 and 48, hypotenuse = 52 (L)

Clue 2 (Square roots): "SHIELD SCRATCHES WERE FOUND ON THE DOORWAY"

$\sqrt{324} = 18$ (S) · $\sqrt{256} = 16$ (U) · $\sqrt{225} = 15$ (A) · $\sqrt{16} = 4$ (D) · $\sqrt{121} = 11$ (R) · $\sqrt{4} = 2$ (C) · $\sqrt{100} = 10$ (F) · $\sqrt{64} = 8$ (I) · $\sqrt{25} = 5$ (L) · $\sqrt{9} = 3$ (N) · $\sqrt{144} = 12$ (O) · $\sqrt{484} = 22$ (W) · $\sqrt{400} = 20$ (E) · $\sqrt{289} = 17$ (Y) · $\sqrt{576} = 24$ (T) · $\sqrt{529} = 23$ (H)

Clue 3 (Exponents): "THEY CRINGED AT A SWORD WITH SMITE ENCHANT"

$6^2 = 36$ (T) · $4^3 = 64$ (I) · $11^2 = 121$ (D) · $5^2 = 25$ (R) · $13^2 = 169$ (A) · $2^2 = 4$ (C) · $2^7 = 128$ (M) · $12^2 = 144$ (N) · $2^3 = 8$ (W) · $20^2 = 400$ (G) · $7^3 = 343$ (O) · $7^2 = 49$ (S) · $18^2 = 324$ (E) · $6^3 = 216$ (H) · $21^2 = 441$ (Y)

Clue 4 (Order of operations): "GOLDEN METAL SHAVINGS WERE LEFT ON THE ANVIL"

$53 + 5 \times 2 = 63$ (G) · $9 \times 12 - 26 = 82$ (D) · $33 + 2 \times 7 = 47$ (H) · $17 + 5 \times 8 = 57$ (V) · $11 \times 11 - 14 = 107$ (I) · $3 \times 10 - 7 = 23$ (M) · $10 \times 10 - 28 = 72$ (T) · $8 \times 9 - 10 = 62$ (N) · $39 + 5 \times 5 = 64$ (E) · $8 \times 9 - 1 = 71$ (R) · $54 + 5 \times 9 = 99$ (W) · $11 \times 12 - 15 = 117$ (F) · $4 \times 11 - 15 = 29$ (L) · $9 \times 7 - 9 = 54$ (S) · $11 \times 6 - 17 = 49$ (O) · $46 + 3 \times 3 = 55$ (A)

Clue 5 (Square roots): surviving statement is box 10 → Mumbo

$\sqrt{49} = 7$ · $\sqrt{144} = 12$ · $\sqrt{4} = 2$ · $\sqrt{81} = 9$ · $\sqrt{121} = 11$ · $\sqrt{16} = 4$ · $\sqrt{36} = 6$ · $\sqrt{25} = 5$ · $\sqrt{1} = 1$ · $\sqrt{64} = 8$ · $\sqrt{9} = 3$