

The Grief of the Golden Apple

Grade 6 math · Place value, Multi-step word problems, Bar models, Addition, Missing addends · Reading level grades 5-6

Detective: _____ Date: _____

Someone hacked the server admin account and spawned thousands of lava blocks right over the spawn castle! We must find out who did it before the whole world melts.

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 Glitcher is _____

Possible suspects

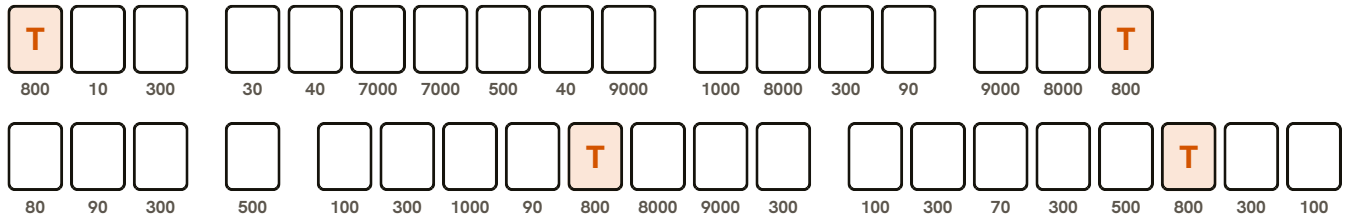
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	MAIN ATTACK	SURVIVAL ITEM	COMBAT HAND	CHARACTER HEADGEAR	CRITICAL WEAKNESS
Technoblade	TNT launcher	Golden apple	Left-handed swing	Green creeper cowl	Water bucket
LDShadowLady	Netherite sword	Redstone repeater	Right-handed swing	Green creeper cowl	Splash potion of weakness
MumboJumbo	Netherite sword	Totem of undying	Right-handed swing	Yellow crown	Splash potion of weakness
DanTDM	Obsidian wall	Totem of undying	Right-handed swing	Blue Steve cap	Iron golem
Steve	Netherite sword	Redstone repeater	Right-handed swing	Yellow crown	Water bucket
Docm77	Ender pearl	Diamond pickaxe	Left-handed swing	Green creeper cowl	Splash potion of weakness
ZombieCleo	Ender pearl	Splash potion	Right-handed swing	Blue Steve cap	Water bucket
Dream	TNT launcher	Diamond pickaxe	Right-handed swing	Yellow crown	Water bucket
Aphmau	TNT launcher	Golden apple	Left-handed swing	Yellow crown	Water bucket
Alex	Elytra wings	Diamond pickaxe	Right-handed swing	Blue Steve cap	Water bucket
impulseSV	TNT launcher	Golden apple	Right-handed swing	Yellow crown	Water bucket
Rendog	Ender pearl	Golden apple	Right-handed swing	Yellow crown	Water bucket
GeorgeNotFound	Elytra wings	Splash potion	Right-handed swing	Blue Steve cap	Water bucket
PopularMMOs	Elytra wings	Splash potion	Left-handed swing	Green creeper cowl	Water bucket
EthosLab	Ender pearl	Redstone repeater	Right-handed swing	Yellow crown	Iron golem
Iskall85	Netherite sword	Golden apple	Right-handed swing	Yellow crown	Water bucket
JeromeASF	Obsidian wall	Totem of undying	Left-handed swing	Green creeper cowl	Splash potion of weakness
Sapnap	Ender pearl	Redstone repeater	Left-handed swing	Green creeper cowl	Water bucket
Grian	Netherite sword	Totem of undying	Left-handed swing	Blue Steve cap	Iron golem
CaptainSparklez	Netherite sword	Golden apple	Right-handed swing	Blue Steve cap	Water bucket
FalseSymmetry	Obsidian wall	Redstone repeater	Right-handed swing	Blue Steve cap	Water bucket

CLUE 1 Place value

We compare the height of the villain's obsidian towers using a blocky bar model to see where they traveled.

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



What is the value of the 8 in 51,859?

→ **T**

What is the value of the 1 in 61,356?

→ **D**

What is the value of the 5 in 698,542?

→ **A**

What is the value of the 8 in 741,080?

→ **U**

What is the value of the 3 in 299,034?

→ **V**

What is the value of the 9 in 51,590?

→ **S**

What is the value of the 3 in 84,352?

→ **E**

What is the value of the 1 in 776,193?

→ **R**

What is the value of the 1 in 77,914?

→ **H**

What is the value of the 9 in 319,044?

→ **N**

What is the value of the 7 in 888,170?

→ **P**

What is the value of the 8 in 718,027?

→ **O**

What is the value of the 4 in 28,641?

→ **I**

What is the value of the 7 in 47,208?

→ **L**

Scratch space:

CLUE 2

Multi-step word problems

The admin needs to calculate how many iron ingots are left after crafting armor and tools in multiple steps.

Solve each problem, then write its letter in the boxes to fill in the missing word.

A witness saw the villain was

R									D	E	D	S	W				.
84	64	24	19	42	19	45	58					64	58	24			

Steve filled 2 boxes with 2 diamond blocks each, then found 80 more diamond blocks. How many diamond blocks are there in all?

Answer: → **R**

Steve earned 3 redstone torches in each of 6 rounds, plus 28 bonus redstone torches. Then 1 redstone torches were lost. How many redstone torches are left?

Answer: → **A**

Steve collected 66 redstone torches in the morning and 6 redstone torches in the afternoon, then split them equally among 3 the Crafting Club. How many redstone torches did each get?

Answer: → **G**

There were 172 ender pearls in all. 4 the Crafting Club used 14 ender pearls each. The other 2 the Crafting Club shared the rest equally. How many ender pearls did each of the other the Crafting Club get?

Answer: → **N**

Steve filled 9 boxes with 5 diamond blocks each, then found 19 more diamond blocks. How many diamond blocks are there in all?

Answer: → **I**

Steve collected 202 redstone torches in the morning and 50 redstone torches in the afternoon, then split them equally among 6 the Crafting Club. How many redstone torches did each get?

Answer: → **T**

Steve collected 113 golden carrots in the morning and 1 golden carrots in the afternoon, then split them equally among 6 the Crafting Club. How many golden carrots did each get?

Answer: → **H**

Scratch space:

CLUE 3

Bar model word problems

The coordinates on the compass are scrambled, so we must decode the place value of the digits to find the lair.

Draw a bar model to solve each word problem, then write its letter in the boxes to fill in the missing word.

Someone scared the villain off with W C K .

83 67 88 121 140 60 87 121 88

One group collected 21 golden carrots and another group collected 62 golden carrots. How many golden carrots in all?

draw a bar model

Answer: → W

The red team has 151 golden carrots and the blue team has 30 golden carrots. How many more golden carrots does the red team have?

draw a bar model

Answer: → E

Steve shares 201 golden carrots equally among 3 teams. How many golden carrots does each team get?

draw a bar model

Answer: → A

Steve has 11 times as many slimeballs as a teammate. The teammate has 8 slimeballs. How many slimeballs does Steve have?

draw a bar model

Answer: → T

Steve has 10 times as many ender pearls as a teammate. The teammate has 6 ender pearls. How many ender pearls does Steve have?

draw a bar model

Answer: → B

Steve used $\frac{3}{5}$ of the ender pearls on the first day. The other 56 ender pearls were used the next day. How many ender pearls were there in all?

draw a bar model

Answer: → R

Steve shares 174 diamond blocks equally among 2 teams. How many diamond blocks does each team get?

draw a bar model

Answer: → U

CLUE 4 Addition

We count the total number of blocks left behind by adding up the sandstone and cobblestone piles.

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

T					T													
2586	5037	4610	7454	3610	2586	5297	2328	6045	4610	5297	6045	5297	5189	6907	6907	4610	6045	5644

8623	4610	5058	5058	5189	4458	8986	5297	5189	4458	3610

$1172 + 1414 = \square \rightarrow \text{T}$

$3073 + 4381 = \square \rightarrow \text{I}$

$4153 + 4470 = \square \rightarrow \text{Y}$

$4558 + 4428 = \square \rightarrow \text{C}$

$3463 + 1834 = \square \rightarrow \text{R}$

$3968 + 2077 = \square \rightarrow \text{D}$

$3130 + 1928 = \square \rightarrow \text{L}$

$1755 + 3282 = \square \rightarrow \text{H}$

$2425 + 1185 = \square \rightarrow \text{N}$

$4454 + 2453 = \square \rightarrow \text{P}$

$1291 + 1037 = \square \rightarrow \text{U}$

$2556 + 3088 = \square \rightarrow \text{A}$

$2113 + 2345 = \square \rightarrow \text{W}$

$3065 + 1545 = \square \rightarrow \text{E}$

$2780 + 2409 = \square \rightarrow \text{O}$

Scratch space:

CLUE 5**Missing addends - the last clue**

A redstone line is broken, and we must find the missing signal strength needed to power the door.

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:

$16 + \underline{\quad} = 21$

$33 + \underline{\quad} = 35$

$38 + \underline{\quad} = 41$

$19 + \underline{\quad} = 28$

$8 + \underline{\quad} = 20$

$22 + \underline{\quad} = 26$

$1 + \underline{\quad} = 2$

$29 + \underline{\quad} = 36$

$39 + \underline{\quad} = 49$

$6 + \underline{\quad} = 12$

$34 + \underline{\quad} = 45$

Step 2 - cross out the sentence with each answer:

1. The villain uses an ender pearl to teleport, then activates a redstone repeater.
2. The villain launches a tnt blast, then eats an enchanted golden apple.
3. The villain launches a tnt blast, then digs down with a diamond pickaxe.
4. The villain soars away using elytra wings, then clutches a totem of undying.
5. The villain slashes with a netherite sword, then eats an enchanted golden apple.
6. The villain launches a tnt blast, then throws a splash potion.
7. The villain launches a tnt blast, then clutches a totem of undying.
8. The villain uses an ender pearl to teleport, then eats an enchanted golden apple.
9. The villain slashes with a netherite sword, then clutches a totem of undying.
10. The villain builds a thick obsidian wall, then digs down with a diamond pickaxe.
11. The villain builds a thick obsidian wall, then eats an enchanted golden apple.
12. The villain uses an ender pearl to teleport, then clutches a totem of undying.

Answer Key

The Grief of the Golden Apple

Culprit: Rendog

Ender pearl · Golden apple · Right-handed swing · Yellow crown · Water bucket

Trail: Start 21 → Clue 1 16 → Clue 2 10 → Clue 3 8 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE VILLAIN DOES NOT USE A REDSTONE REPEATER"

What is the value of the 8 in 51,859? = 800 (T) · What is the value of the 1 in 61,356? = 1000 (D) · What is the value of the 5 in 698,542? = 500 (A) · What is the value of the 8 in 741,080? = 80 (U) · What is the value of the 3 in 299,034? = 30 (V) · What is the value of the 9 in 51,590? = 90 (S) · What is the value of the 3 in 84,352? = 300 (E) · What is the value of the 1 in 776,193? = 100 (R) · What is the value of the 1 in 77,914? = 10 (H) · What is the value of the 9 in 319,044? = 9000 (N) · What is the value of the 7 in 888,170? = 70 (P) · What is the value of the 8 in 718,027? = 8000 (O) · What is the value of the 4 in 28,641? = 40 (I) · What is the value of the 7 in 47,208? = 7000 (L)

Clue 2 (Multi-step word problems): "RIGHT HANDED SWING"

Steve filled 2 boxes with 2 diamond blocks each, then found 80 more diamond blocks. How many diamond blocks are there in all? = 84 (R) · Steve earned 3 redstone torches in each of 6 rounds, plus 28 bonus redstone torches. Then 1 redstone torches were lost. How many redstone torches are left? = 45 (A) · Steve collected 66 redstone torches in the morning and 6 redstone torches in the afternoon, then split them equally among 3 the Crafting Club. How many redstone torches did each get? = 24 (G) · There were 172 ender pearls in all. 4 the Crafting Club used 14 ender pearls each. The other 2 the Crafting Club shared the rest equally. How many ender pearls did each of the other the Crafting Club get? = 58 (N) · Steve filled 9 boxes with 5 diamond blocks each, then found 19 more diamond blocks. How many diamond blocks are there in all? = 64 (I) · Steve collected 202 redstone torches in the morning and 50 redstone torches in the afternoon, then split them equally among 6 the Crafting Club. How many redstone torches did each get? = 42 (T) · Steve collected 113 golden carrots in the morning and 1 golden carrots in the afternoon, then split them equally among 6 the Crafting Club. How many golden carrots did each get? = 19 (H)

Clue 3 (Bar model word problems): "WATER BUCKET"

One group collected 21 golden carrots and another group collected 62 golden carrots. How many golden carrots in all? = 83 (W) · The red team has 151 golden carrots and the blue team has 30 golden carrots. How many more golden carrots does the red team have? = 121 (E) · Steve shares 201 golden carrots equally among 3 teams. How many golden carrots does each team get? = 67 (A) · Steve has 11 times as many slimeballs as a teammate. The teammate has 8 slimeballs. How many slimeballs does Steve have? = 88 (T) · Steve has 10 times as many ender pearls as a teammate. The teammate has 6 ender pearls. How many ender pearls does Steve have? = 60 (B) · Steve used $\frac{3}{5}$ of the ender pearls on the first day. The other 56 ender pearls were used the next day. How many ender pearls were there in all? = 140 (R) · Steve shares 174 diamond blocks equally among 2 teams. How many diamond blocks does each team get? = 87 (U)

Clue 4 (Addition): "THE INTRUDER DROPPED A YELLOW CROWN"

$1172 + 1414 = 2586$ (T) · $3073 + 4381 = 7454$ (I) · $4153 + 4470 = 8623$ (Y) · $4558 + 4428 = 8986$ (C) · $3463 + 1834 = 5297$ (R) · $3968 + 2077 = 6045$ (D) · $3130 + 1928 = 5058$ (L) · $1755 + 3282 = 5037$ (H) · $2425 + 1185 = 3610$ (N) · $4454 + 2453 = 6907$ (P) · $1291 + 1037 = 2328$ (U) · $2556 + 3088 = 5644$ (A) · $2113 + 2345 = 4458$ (W) · $3065 + 1545 = 4610$ (E) · $2780 + 2409 = 5189$ (O)

Clue 5 (Missing addends): surviving statement is box 8 → Rendog

$16 + \underline{\quad} = 21 = 5$ · $33 + \underline{\quad} = 35 = 2$ · $38 + \underline{\quad} = 41 = 3$ · $19 + \underline{\quad} = 28 = 9$ · $8 + \underline{\quad} = 20 = 12$ · $22 + \underline{\quad} = 26 = 4$ · $1 + \underline{\quad} = 2 = 1$ · $29 + \underline{\quad} = 36 = 7$ · $39 + \underline{\quad} = 49 = 10$ · $6 + \underline{\quad} = 12 = 6$ · $34 + \underline{\quad} = 45 = 11$