



The Great Block Heist

Grade 7 math · Place value, Rounding, Skip counting, Word problems, Two-step equations · Reading level grades 5-6

Detective: _____ Date: _____

The server went offline with a loud explosion! A mysterious Griefer has stolen the legendary Golden Carrot from the Server Admin's secure chest. We need to follow the pixelated clues and catch them before they log out!

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	PRIMARY CLASS	OFFHAND ITEM	DOMINANT SWING HAND	HELMET STYLE	VULNERABILITY
Foolish	Mob Whisperer	Golden Apple	Right Handed Swing	Golden Helmet	Slowness Potion
George	Master Builder	Spiky Shield	Right Handed Swing	Netherite Helmet	Powder Snow
Technoblade	Master Builder	Speed Potion	Left Handed Swing	Golden Helmet	Powder Snow
Tommy	Elite Speedrunner	Spiky Shield	Left Handed Swing	Netherite Helmet	Slowness Potion
BadBoyHalo	Mob Whisperer	Spiky Shield	Right Handed Swing	Netherite Helmet	Powder Snow
Tubbo	Redstone Engineer	Totem of Undying	Right Handed Swing	Diamond Helmet	Slowness Potion
Ranboo	Master Builder	Ender Pearl	Right Handed Swing	Diamond Helmet	Slowness Potion
Sapnap	Nether Explorer	Ender Pearl	Right Handed Swing	Diamond Helmet	Powder Snow
LDShadowLady	Elite Speedrunner	Totem of Undying	Left Handed Swing	Diamond Helmet	Slowness Potion
Aphmau	Redstone Engineer	Spiky Shield	Left Handed Swing	Netherite Helmet	Water Bucket
Grian	Nether Explorer	Ender Pearl	Right Handed Swing	Golden Helmet	Slowness Potion
Antfrost	Mob Whisperer	Spiky Shield	Right Handed Swing	Diamond Helmet	Slowness Potion
Dream	Mob Whisperer	Speed Potion	Right Handed Swing	Golden Helmet	Slowness Potion
Alex	Elite Speedrunner	Golden Apple	Left Handed Swing	Golden Helmet	Slowness Potion
SethBling	Mob Whisperer	Totem of Undying	Right Handed Swing	Diamond Helmet	Slowness Potion
Steve	Redstone Engineer	Totem of Undying	Left Handed Swing	Diamond Helmet	Slowness Potion
CaptainSparklez	Master Builder	Golden Apple	Right Handed Swing	Diamond Helmet	Slowness Potion
Sam	Master Builder	Spiky Shield	Right Handed Swing	Golden Helmet	Water Bucket
Mumbo	Redstone Engineer	Spiky Shield	Right Handed Swing	Netherite Helmet	Slowness Potion
Etho	Redstone Engineer	Spiky Shield	Right Handed Swing	Diamond Helmet	Water Bucket
Stampy	Master Builder	Golden Apple	Right Handed Swing	Golden Helmet	Slowness Potion

CLUE 1 Place value

We found a corrupted coordinate book near the spawn point. Looking closely at the hundreds and thousands places in the grid numbers reveals our first lead.

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

1000 900 700 400 30 9000 9000 8000 30 4000 60 500 700 5000 4000 500 1000

900 8000 400 700 8000 5000 6000 30 90 3000 5000 900 30 700 9000 60

What is the value of the 1 in 61,460?



What is the value of the 5 in 25,791?

A diagram showing a transition from an empty box to a box containing the letter S. The first box is empty, followed by a right-pointing arrow, and then a second box containing the letter 'S'.

What is the value of the 6 in 51,461?



What is the value of the 3 in 613,479?

? → **Y**

What is the value of the 5 in 77,598?

A diagram showing a transformation. On the left is a rounded rectangle containing a question mark. An arrow points to the right, where another rounded rectangle contains the number 0.

What is the value of the 9 in 18,592?



What is the value of the 7 in 160,736?

? → ☒ E

What is the value of the 6 in 16,453?

? → **P**

What is the value of the 9 in 735,971?

? → **H**

What is the value of the 8 in 78,629?

? → **A**

What is the value of the 3 in 40,232?

A diagram showing a transition from an empty box to a box containing the letter 'I'. The first box is empty, followed by a right-pointing arrow, and then a second box containing the letter 'I'.

What is the value of the 4 in 579,451?

? $\rightarrow$ v

What is the value of the 4 in 64,802?

A diagram showing a box with an arrow pointing to a box labeled **N**.

What is the value of the 9 in 79,414?

A diagram illustrating a transition. On the left is a simple rectangular box. An arrow points from this box to a second box on the right. The second box is identical in shape but has a thick border and contains the letter 'L' in the center.

Scratch space:

CLUE 2

Our minimap scanner is trying to track the runaway player, but it only displays approximate distances rounded to the nearest ten blocks.

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

Diagram illustrating a sequence of numbers arranged in two rows of boxes. The top row contains 18 boxes, and the bottom row contains 14 boxes. Some boxes are shaded orange and contain the letter 'T'.

Top row (18 boxes):

- Box 1 (shaded orange, T): 30
- Box 2: 50
- Box 3: 700
- Box 4: 4300
- Box 5: 3000
- Box 6: 900
- Box 7: 900
- Box 8: 2000
- Box 9: 3000
- Box 10: 1300
- Box 11: 110
- Box 12: 500
- Box 13: 3000
- Box 14: 1300
- Box 15: 5000
- Box 16: 110
- Box 17: 500
- Box 18: 3000
- Box 19 (shaded orange, T): 30
- Box 20: 50

Bottom row (14 boxes):

- Box 1 (shaded orange, T): 30
- Box 2: 50
- Box 3: 700
- Box 4: 3000
- Box 5: 7000
- Box 6: 7000
- Box 7: 3000
- Box 8: 5000
- Box 9: 50
- Box 10 (shaded orange, T): 30
- Box 11: 50
- Box 12: 2000
- Box 13: 1300
- Box 14: 290

Round 32 to the nearest ten → **T**

Round 4,994 to the nearest thousand → **G**

Round 909 to the nearest hundred $\rightarrow$ **L**

Round 681 to the nearest hundred $\rightarrow$ **E**

Round 1,324 to the nearest hundred → **N**

Round 3,466 to the nearest thousand →

Round 483 to the nearest hundred → **W**

Round 286 to the nearest ten $\rightarrow$ **D**

Round 4,290 to the nearest hundred → **V**

Round 2,356 to the nearest thousand → **A**

Round 7,341 to the nearest thousand $\rightarrow$ **R**

Round 54 to the nearest ten → **H**

Round 111 to the nearest ten $\rightarrow$ **S**

Scratch space:

CLUE 3 Skip counting

The thief left a trail of redstone repeaters ticking in a steady pattern. If we skip count the delay ticks, we can unlock their hidden path.

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

A																			
22	26	12	27	9	18	45	26	26	42	27	16	60	27	18	9	60	12	12	
26	16	27	42	16	24	45	39	60	12	12	A								

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, __, 24, 26 → **A**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, __, 65, 70 → **I**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, __, 14, 16 → **L**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, __, 45, 48 → **P**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, __, 27, 30 → **H**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, __, 28, 30 → **S**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, __, 30, 33 → **O**

Skip-count by 3s. Fill the blank: 3, 6, __, 12, 15 → **W**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, __, 42, 45 → **V**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, __, 21, 24 → **N**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, __, 18, 20 → **T**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, __, 50, 55 → **E**

Scratch space:

CLUE 4

Word problems

The local villager blacksmith remembers trading some gear to a suspicious player. Let us calculate the total emerald cost to figure out what they bought.

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

A strand of D D E L E T hair turned up at the scene.

The cartographer found 108 slimeballs yesterday and 2 more today. How many slimeballs in all?

Answer: → D

The cartographer found 9 slimeballs yesterday and 6 more today. How many slimeballs in all?

Answer: → I

There were 103 diamonds. 20 were used up. How many diamonds are left?

Answer: → N

The cartographer lined up 4 rows of 3 iron ingots. How many iron ingots in all?

Answer: → O

There were 126 slimeballs. 33 were used up. How many slimeballs are left?

Answer: → H

There were 148 iron ingots. 32 were used up. How many iron ingots are left?

Answer: → A

There were 74 slimeballs. 5 were used up. How many slimeballs are left?

Answer: → M

Scratch space:

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

A locked chest requires solving a double-wired redstone latch puzzle. Find the missing variable to open the chest and get the final clue!

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:

$3x + 1 = 16, x = \boxed{}$

$3x + 9 = 45, x = \boxed{}$

$6x + 1 = 43, x = \boxed{}$

$3x + 6 = 39, x = \boxed{}$

$5x + 8 = 23, x = \boxed{}$

$5x + 8 = 28, x = \boxed{}$

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

$2x + 8 = 10, x = \boxed{}$

$4x + 12 = 52, x = \boxed{}$

$4x + 1 = 37, x = \boxed{}$

$3x + 9 = 27, x = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain grieves the spawn castle, then speeds off on a tamed horse.
2. The villain grieves the spawn castle, then teleports out with an ender pearl.
3. The villain breaches the obsidian vault, then speeds off on a tamed horse.
4. The villain breaches the obsidian vault, then flies away using an elytra.
5. The villain breaches the obsidian vault, then escapes through a nether portal.
6. The villain steals the dragon egg, then digs straight down to safety.
7. The villain loots the ancient city, then escapes through a nether portal.
8. The villain breaches the obsidian vault, then teleports out with an ender pearl.
9. The villain grieves the spawn castle, then escapes through a nether portal.
10. The villain disables the redstone grid, then escapes through a nether portal.
11. The villain disables the redstone grid, then speeds off on a tamed horse.
12. The villain grieves the spawn castle, then flies away using an elytra.

Answer Key

The Great Block Heist

Culprit: Ranboo

Master Builder · Ender Pearl · Right Handed Swing · Diamond Helmet · Slowness Potion

Trail: Start 21 → Clue 1 13 → Clue 2 9 → Clue 3 8 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE VILLAIN DOES NOT HAVE A SPIKY SHIELD"

What is the value of the 1 in 61,460? = 1000 (T) · What is the value of the 5 in 25,791? = 5000 (S) · What is the value of the 6 in 51,461? = 60 (D) · What is the value of the 3 in 613,479? = 3000 (Y) · What is the value of the 5 in 77,598? = 500 (O) · What is the value of the 9 in 18,592? = 90 (K) · What is the value of the 7 in 160,736? = 700 (E) · What is the value of the 6 in 16,453? = 6000 (P) · What is the value of the 9 in 735,971? = 900 (H) · What is the value of the 8 in 78,629? = 8000 (A) · What is the value of the 3 in 40,232? = 30 (I) · What is the value of the 4 in 579,451? = 400 (V) · What is the value of the 4 in 64,802? = 4000 (N) · What is the value of the 9 in 79,414? = 9000 (L)

Clue 2 (Rounding): "THE VILLAIN SWINGS WITH THEIR RIGHT HAND"

Round 32 to the nearest ten = 30 (T) · Round 4,994 to the nearest thousand = 5000 (G) · Round 909 to the nearest hundred = 900 (L) · Round 681 to the nearest hundred = 700 (E) · Round 1,324 to the nearest hundred = 1300 (N) · Round 3,466 to the nearest thousand = 3000 (I) · Round 483 to the nearest hundred = 500 (W) · Round 286 to the nearest ten = 290 (D) · Round 4,290 to the nearest hundred = 4300 (V) · Round 2,356 to the nearest thousand = 2000 (A) · Round 7,341 to the nearest thousand = 7000 (R) · Round 54 to the nearest ten = 50 (H) · Round 111 to the nearest ten = 110 (S)

Clue 3 (Skip counting): "A SLOWNESS POTION WILL STOP THE VILLAIN"

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, __, 24, 26 = 22 (A) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, __, 65, 70 = 60 (I) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, __, 14, 16 = 12 (L) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, __, 45, 48 = 42 (P) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, __, 27, 30 = 24 (H) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, __, 28, 30 = 26 (S) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, __, 30, 33 = 27 (O) · Skip-count by 3s. Fill the blank: 3, 6, __, 12, 15 = 9 (W) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, __, 42, 45 = 39 (V) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, __, 21, 24 = 18 (N) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, __, 18, 20 = 16 (T) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, __, 50, 55 = 45 (E)

Clue 4 (Word problems): "DIAMOND HELMET"

The cartographer found 108 slimeballs yesterday and 2 more today. How many slimeballs in all? = 110 (D) · The cartographer found 9 slimeballs yesterday and 6 more today. How many slimeballs in all? = 15 (I) · There were 103 diamonds. 20 were used up. How many diamonds are left? = 83 (N) · The cartographer lined up 4 rows of 3 iron ingots. How many iron ingots in all? = 12 (O) · There were 126 slimeballs. 33 were used up. How many slimeballs are left? = 93 (H) · There were 148 iron ingots. 32 were used up. How many iron ingots are left? = 116 (A) · There were 74 slimeballs. 5 were used up. How many slimeballs are left? = 69 (M)

Clue 5 (Two-step equations): surviving statement is box 2 → Ranboo

$3x + 1 = 16, x = 5$ · $3x + 9 = 45, x = 12$ · $6x + 1 = 43, x = 7$ · $3x + 6 = 39, x = 11$ · $5x + 8 = 23, x = 3$ · $5x + 8 = 28, x = 4$ · $2x + 11 = 27, x = 8$ · $2x + 8 = 10, x = 1$ · $4x + 12 = 52, x = 10$ · $4x + 1 = 37, x = 9$ · $3x + 9 = 27, x = 6$