# The Mystery of the Blocky Vault

Grade 3 math · Rounding, Addition, Subtraction, Multiplication, Division · Reading level grades 3-4

**Detective:** _____ **Date:** _____

Someone broke into the Grand Builder's vault in Pixel Craft Kingdom and snatched the master blueprint! The craft council needs your detective skills to find the culprit before sunrise.

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.

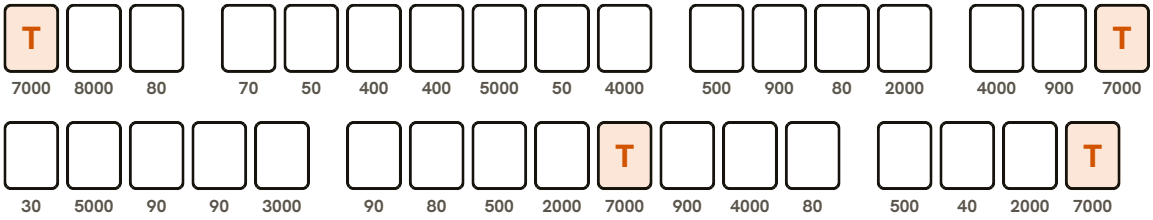
| NAME | MOBILITY TOOL | INVENTORY GEAR | DOMINANT HAND | PIXEL WIG | DEFENSE TRAP |
|---|---|---|---|---|---|
| **Endy Ethan** | ENDER PEARL | DIAMOND PICKAXE | LEFT HANDED | GREEN CREPER HAIR | WATER BUCKET |
| **Toby Torch** | SPEED POTION | NETHERITE HELM | RIGHT HANDED | PURPLE ENDER HAIR | CAT TAME |
| **Maya Nether** | TNT BLOCK | GOLDEN APPLE | RIGHT HANDED | GREEN CREPER HAIR | CAT TAME |
| **Steve Miner** | ELYTRA GLIDER | NETHERITE HELM | LEFT HANDED | SPIDER SILK HAIR | CAT TAME |
| **Nora Nook** | ELYTRA GLIDER | NETHERITE HELM | RIGHT HANDED | SPIDER SILK HAIR | CAT TAME |
| **Gabe Golem** | SPEED POTION | GOLDEN APPLE | RIGHT HANDED | GREEN CREPER HAIR | CAT TAME |
| **Oliver Ore** | SPEED POTION | DIAMOND PICKAXE | RIGHT HANDED | PURPLE ENDER HAIR | LIGHT BEAM |
| **Gemma Glider** | ENDER PEARL | GOLDEN APPLE | LEFT HANDED | GREEN CREPER HAIR | WATER BUCKET |
| **Ian Igloo** | SLIME BOOTS | REDSTONE DUST | RIGHT HANDED | PURPLE ENDER HAIR | CAT TAME |
| **Jaya Jungle** | SPEED POTION | FIREWORK ROCKET | RIGHT HANDED | PURPLE ENDER HAIR | LIGHT BEAM |
| **Sammy Slime** | SPEED POTION | FIREWORK ROCKET | RIGHT HANDED | PURPLE ENDER HAIR | CAT TAME |
| **Fiona Forge** | SPEED POTION | NETHERITE HELM | RIGHT HANDED | PURPLE ENDER HAIR | WATER BUCKET |
| **Alex Builder** | ENDER PEARL | NETHERITE HELM | RIGHT HANDED | PURPLE ENDER HAIR | WATER BUCKET |
| **Bella Beacon** | SPEED POTION | REDSTONE DUST | RIGHT HANDED | PURPLE ENDER HAIR | LIGHT BEAM |
| **Milo Mesh** | TNT BLOCK | GOLDEN APPLE | LEFT HANDED | PURPLE ENDER HAIR | CAT TAME |
| **Crafty Carl** | SLIME BOOTS | FIREWORK ROCKET | RIGHT HANDED | PURPLE ENDER HAIR | CAT TAME |
| **Creeper Cole** | ELYTRA GLIDER | REDSTONE DUST | RIGHT HANDED | PURPLE ENDER HAIR | CAT TAME |
| **Hannah Helm** | SLIME BOOTS | DIAMOND PICKAXE | LEFT HANDED | GREEN CREPER HAIR | LIGHT BEAM |
| **Pixel Penny** | ENDER PEARL | NETHERITE HELM | RIGHT HANDED | SPIDER SILK HAIR | LIGHT BEAM |
| **Blocky Bob** | SLIME BOOTS | NETHERITE HELM | RIGHT HANDED | GREEN CREPER HAIR | WATER BUCKET |
| **Zack Zombie** | ENDER PEARL | GOLDEN APPLE | RIGHT HANDED | PURPLE ENDER HAIR | CAT TAME |

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## CLUE 1 Rounding

The pixel radar only gives estimated block counts, so you must round the total to find the clue.

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




Round 7,151 to the nearest thousand ☐ → T

Round 3,195 to the nearest thousand ☐ → Y

Round 4,281 to the nearest thousand ☐ → N

Round 49 to the nearest ten ☐ → I

Round 33 to the nearest ten ☐ → C

Round 898 to the nearest hundred ☐ → O

Round 66 to the nearest ten ☐ → V

Round 90 to the nearest ten ☐ → R

Round 79 to the nearest ten ☐ → E

Round 537 to the nearest hundred ☐ → D

Round 412 to the nearest hundred ☐ → L

Round 1,949 to the nearest thousand ☐ → S

Round 7,530 to the nearest thousand ☐ → H

Round 4,580 to the nearest thousand ☐ → A

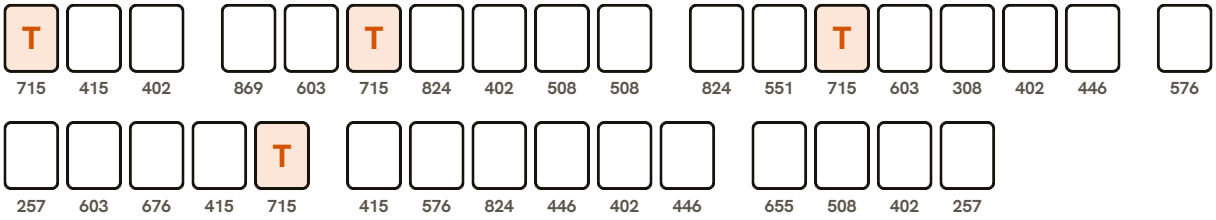
Round 43 to the nearest ten ☐ → U

Scratch space:

## CLUE 2 Addition

You combine the block totals from two craft benches to find out how many bricks were moved.

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




| | | |
|---|---|---|
| 494 + 221 = ☐ → T | 370 + 285 = ☐ → U | 153 + 249 = ☐ → E |
| 261 + 563 = ☐ → N | 145 + 270 = ☐ → H | 198 + 110 = ☐ → C |
| 392 + 184 = ☐ → A | 187 + 416 = ☐ → I | 442 + 427 = ☐ → W |
| 433 + 243 = ☐ → G | 111 + 146 = ☐ → R | 352 + 199 = ☐ → O |
| 225 + 221 = ☐ → D | 334 + 174 = ☐ → S | |

Scratch space:

## CLUE 3 Subtraction

You compare the original vault count with what remains to see how many gems were taken.

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




260 - 47 = ☐ → T

315 - 36 = ☐ → S

234 - 23 = ☐ → M

1016 - 135 = ☐ → I

474 - 202 = ☐ → D

997 - 109 = ☐ → G

818 - 208 = ☐ → H

296 - 69 = ☐ → E

736 - 186 = ☐ → U

610 - 177 = ☐ → A

309 - 123 = ☐ → C

438 - 31 = ☐ → N

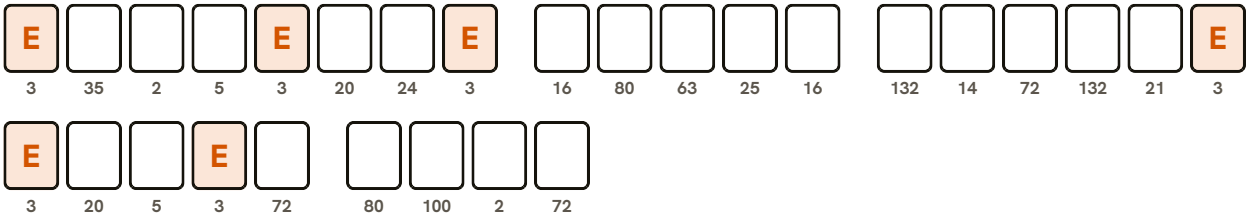
664 - 371 = ☐ → R

Scratch space:

## CLUE 4 Multiplication facts (1-12)

> The builder arranged stone blocks into equal rows, so you multiply to tally them all.

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




| | | | |
|---|---|---|---|
| 1 × 3 = ☐ → E | 10 × 10 = ☐ → A | 7 × 2 = ☐ → U | |
| 11 × 12 = ☐ → P | 10 × 8 = ☐ → H | 7 × 3 = ☐ → L | |
| 7 × 5 = ☐ → V | 1 × 2 = ☐ → I | 4 × 6 = ☐ → C | 2 × 10 = ☐ → N |
| 9 × 7 = ☐ → O | 9 × 8 = ☐ → R | 5 × 5 = ☐ → W | 1 × 5 = ☐ → D |
| 2 × 8 = ☐ → S | | | |

Scratch space:

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

> The guard team shares the remaining iron bars equally across all patrol towers.

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:**

| | | | | |
|---|---|---|---|---|
| 14 ÷ 7 = ☐ | 48 ÷ 4 = ☐ | 96 ÷ 12 = ☐ | 24 ÷ 6 = ☐ | 36 ÷ 12 = ☐ |
| 12 ÷ 2 = ☐ | 55 ÷ 11 = ☐ | 5 ÷ 5 = ☐ | 40 ÷ 4 = ☐ | 28 ÷ 4 = ☐ |
| 11 ÷ 1 = ☐ | | | | |

**Step 2 - cross out the sentence with each answer:**

1. The villain teleported into the vault, then mined the shiny emerald blocks.
2. The villain breached the village wall, then scooped up the rare Netherite.
3. The villain blasted open the stone gate, then jammed the secret door gears.
4. The villain teleported into the vault, then boosted away into the night sky.
5. The villain soared past the watchtower, then scooped up the rare Netherite.
6. The villain bounced over the high fence, then scooped up the rare Netherite.
7. The villain bounced over the high fence, then mined the shiny emerald blocks.
8. The villain bounced over the high fence, then boosted away into the night sky.
9. The villain teleported into the vault, then snagged the golden enchanted fruit.
10. The villain breached the village wall, then snagged the golden enchanted fruit.
11. The villain breached the village wall, then mined the shiny emerald blocks.
12. The villain breached the village wall, then boosted away into the night sky.

TEACHER / PARENT

# Answer Key

The Mystery of the Blocky Vault

## Culprit: Zack Zombie

ENDER PEARL · GOLDEN APPLE · RIGHT HANDED · PURPLE ENDER HAIR · CAT TAME

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

### Clue 1 (Rounding): "THE VILLAIN DOES NOT CARRY REDSTONE DUST"

Round 7,151 to the nearest thousand = 7000 (T) · Round 3,195 to the nearest thousand = 3000 (Y) · Round 4,281 to the nearest thousand = 4000 (N) · Round 49 to the nearest ten = 50 (I) · Round 33 to the nearest ten = 30 (C) · Round 898 to the nearest hundred = 900 (O) · Round 66 to the nearest ten = 70 (V) · Round 90 to the nearest ten = 90 (R) · Round 79 to the nearest ten = 80 (E) · Round 537 to the nearest hundred = 500 (D) · Round 412 to the nearest hundred = 400 (L) · Round 1,949 to the nearest thousand = 2000 (S) · Round 7,530 to the nearest thousand = 8000 (H) · Round 4,580 to the nearest thousand = 5000 (A) · Round 43 to the nearest ten = 40 (U)

### Clue 2 (Addition): "THE WITNESS NOTICED A RIGHT HANDED USER"

494 + 221 = 715 (T) · 370 + 285 = 655 (U) · 153 + 249 = 402 (E) · 261 + 563 = 824 (N) · 145 + 270 = 415 (H) · 198 + 110 = 308 (C) · 392 + 184 = 576 (A) · 187 + 416 = 603 (I) · 442 + 427 = 869 (W) · 433 + 243 = 676 (G) · 111 + 146 = 257 (R) · 352 + 199 = 551 (O) · 225 + 221 = 446 (D) · 334 + 174 = 508 (S)

### Clue 3 (Subtraction): "THE GUARDIAN USED A CAT TAME"

260 - 47 = 213 (T) · 315 - 36 = 279 (S) · 234 - 23 = 211 (M) · 1016 - 135 = 881 (I) · 474 - 202 = 272 (D) · 997 - 109 = 888 (G) · 818 - 208 = 610 (H) · 296 - 69 = 227 (E) · 736 - 186 = 550 (U) · 610 - 177 = 433 (A) · 309 - 123 = 186 (C) · 438 - 31 = 407 (N) · 664 - 371 = 293 (R)

### Clue 4 (Multiplication facts (1-12)): "EVIDENCE SHOWS PURPLE ENDER HAIR"

1 × 3 = 3 (E) · 10 × 10 = 100 (A) · 7 × 2 = 14 (U) · 11 × 12 = 132 (P) · 10 × 8 = 80 (H) · 7 × 3 = 21 (L) · 7 × 5 = 35 (V) · 1 × 2 = 2 (I) · 4 × 6 = 24 (C) · 2 × 10 = 20 (N) · 9 × 7 = 63 (O) · 9 × 8 = 72 (R) · 5 × 5 = 25 (W) · 1 × 5 = 5 (D) · 2 × 8 = 16 (S)

### Clue 5 (Division facts (1-12)): surviving statement is box 9 → Zack Zombie

14 ÷ 7 = 2 · 48 ÷ 4 = 12 · 96 ÷ 12 = 8 · 24 ÷ 6 = 4 · 36 ÷ 12 = 3 · 12 ÷ 2 = 6 · 55 ÷ 11 = 5 · 5 ÷ 5 = 1 · 40 ÷ 4 = 10 · 28 ÷ 4 = 7 · 11 ÷ 1 = 11