



The Mystery of the Broken Blocks

Grade 2 math · Place value, Skip counting, Addition, Subtraction, Missing addends · Reading level grades 1-2

Detective: _____ **Date:** _____

Oh no! Someone broke the big pixel statue in the middle of town! The Master Builder is sad. We must look for clues in the blocks and find out who did it.

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 the mysterious griefer is _____

Possible suspects

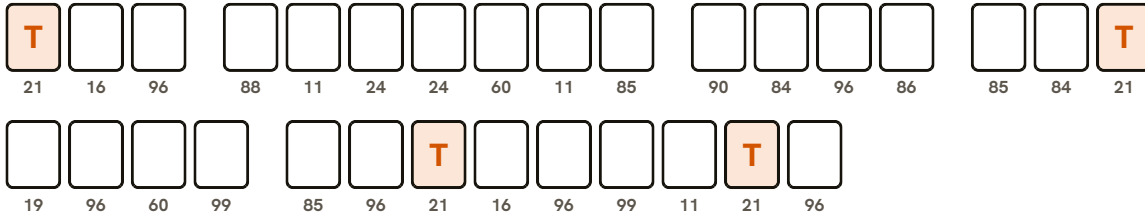
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	GRIEFING STYLE	FAVORITE TOOL	MINING HAND	HAIR COLOR	BIG WEAKNESS
Steve	splashes a wild water bucket	drinks a glowing potion of speed	uses right hand to mine	blocky brown hair	scared of cats
Skeppy	lights a block of active tnt	puts on heavy netherite gear	uses left hand to mine	pixelated green hair	slips on blue ice
Lizzie	builds a speedy dirt bridge	tames a wild wolf	uses right hand to mine	pixelated green hair	scared of cats
Stampy	splashes a wild water bucket	tames a wild wolf	uses right hand to mine	pixelated green hair	scared of cats
Dream	splashes a wild water bucket	flies away using elytras	uses right hand to mine	square yellow hair	stuck in cobwebs
Shubble	builds a speedy dirt bridge	flies away using elytras	uses left hand to mine	blocky brown hair	stuck in cobwebs
Gemini	splashes a wild water bucket	flies away using elytras	uses right hand to mine	pixelated green hair	slips on blue ice
Sapnap	builds a speedy dirt bridge	flies away using elytras	uses right hand to mine	pixelated green hair	slips on blue ice
Mumbo	builds a speedy dirt bridge	flies away using elytras	uses left hand to mine	blocky brown hair	scared of cats
George	splashes a wild water bucket	flies away using elytras	uses left hand to mine	square yellow hair	stuck in cobwebs
Hermit	lights a block of active tnt	tames a wild wolf	uses left hand to mine	pixelated green hair	scared of cats
Preston	splashes a wild water bucket	drinks a glowing potion of speed	uses left hand to mine	square yellow hair	slips on blue ice
Sparklez	lights a block of active tnt	flies away using elytras	uses right hand to mine	pixelated green hair	slips on blue ice
Dan	builds a speedy dirt bridge	tames a wild wolf	uses right hand to mine	blocky brown hair	slips on blue ice
Captain	lights a block of active tnt	rides off on a fast pig	uses right hand to mine	pixelated green hair	stuck in cobwebs
Joel	wires up messy redstone lines	tames a wild wolf	uses right hand to mine	pixelated green hair	slips on blue ice
Alex	builds a speedy dirt bridge	rides off on a fast pig	uses right hand to mine	square yellow hair	stuck in cobwebs
Grian	wires up messy redstone lines	puts on heavy netherite gear	uses right hand to mine	pixelated green hair	slips on blue ice
Sky	spills hot glowing lava	flies away using elytras	uses left hand to mine	pixelated green hair	slips on blue ice
Tommy	spills hot glowing lava	puts on heavy netherite gear	uses left hand to mine	square yellow hair	stuck in cobwebs
Ranboo	wires up messy redstone lines	drinks a glowing potion of speed	uses left hand to mine	square yellow hair	stuck in cobwebs

CLUE 1 Place value

We find a chest of gold ingots. The stacks of tens and ones show us a secret number.

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



What number has 2 tens and 1 one? → **T**

What number has 1 ten and 9 ones? → **W**

What number has 9 tens and 6 ones? → **E**

What number has 8 tens and 4 ones? → **O**

What number has 8 tens and 6 ones? → **S**

What number has 6 tens and 0 ones? → **A**

What number has 9 tens and 0 ones? → **D**

What number has 1 ten and 1 one? → **I**

What number has 8 tens and 5 ones? → **N**

What number has 1 ten and 6 ones? → **H**

What number has 2 tens and 4 ones? → **L**

What number has 8 tens and 8 ones? → **V**

What number has 9 tens and 9 ones? → **R**

Scratch space:

CLUE 2 Skip counting

We follow a line of redstone torches. We skip count by twos to find the last torch.

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

R																		R		
42	140	55	16	18	16	27	9	26	15	140	9	140	9	55	15	27	42	80	33	

		R														
35	36	42	36	22	36	120	18	110	9	18	16	36	35	27	22	22

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

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, __, 60, 65 → **G**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, __, 130, 140 → **F**

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

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

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, __, 39, 42 → **E**

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

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

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

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

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

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, __, 90, 100 → **K**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, __, 150, 160 → **I**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, __, 40, 45 → **W**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, __, 120, 130 → **O**

Scratch space:

CLUE 3 Addition

A friendly villager counts their emeralds. We add the piles together to get the total.

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

T																			
66	48	35	96	80	31	31	93	80	74	87	31	80	37	37	35	89	63	74	
93	21	31	63	76	84	63	53	21	31	58	35	80	76	35					

$38 + 28 = \square \rightarrow \text{T}$	$25 + 28 = \square \rightarrow \text{F}$	$20 + 28 = \square \rightarrow \text{H}$
$32 + 52 = \square \rightarrow \text{K}$	$36 + 51 = \square \rightarrow \text{S}$	$10 + 25 = \square \rightarrow \text{E}$
$22 + 15 = \square \rightarrow \text{P}$	$9 + 12 = \square \rightarrow \text{B}$	$28 + 46 = \square \rightarrow \text{N}$
$37 + 39 = \square \rightarrow \text{C}$	$45 + 51 = \square \rightarrow \text{V}$	$44 + 36 = \square \rightarrow \text{I}$
$40 + 18 = \square \rightarrow \text{U}$	$30 + 63 = \square \rightarrow \text{A}$	$33 + 30 = \square \rightarrow \text{O}$
$50 + 39 = \square \rightarrow \text{D}$	$17 + 14 = \square \rightarrow \text{L}$	

Scratch space:

CLUE 4

Subtraction

A bad creeper blows up some oak planks. We subtract the broken blocks from the stack.

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

W																		
20	58	76	72	17	54	60	25	80	35	58	51	37	27	58	60			
19	53	58	58	54	41	37	80	53	72	54	27	41	58	49	27	58	25	49

$43 - 23 = \square \rightarrow \boxed{W}$

$74 - 2 = \square \rightarrow \boxed{O}$

$75 - 15 = \square \rightarrow \boxed{D}$

$46 - 19 = \square \rightarrow \boxed{T}$

$59 - 18 = \square \rightarrow \boxed{H}$

$38 - 3 = \square \rightarrow \boxed{X}$

$54 - 5 = \square \rightarrow \boxed{S}$

$68 - 17 = \square \rightarrow \boxed{L}$

$33 - 8 = \square \rightarrow \boxed{P}$

$63 - 9 = \square \rightarrow \boxed{N}$

$75 - 38 = \square \rightarrow \boxed{A}$

$41 - 22 = \square \rightarrow \boxed{G}$

$50 - 33 = \square \rightarrow \boxed{U}$

$115 - 35 = \square \rightarrow \boxed{I}$

$87 - 34 = \square \rightarrow \boxed{R}$

$110 - 34 = \square \rightarrow \boxed{F}$

$66 - 8 = \square \rightarrow \boxed{E}$

Scratch space:

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

We need more diamonds to craft a sword. We find how many more we must mine to make it.

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:

$2 + \underline{\quad} = 8$

$10 + \underline{\quad} = 18$

$10 + \underline{\quad} = 11$

$4 + \underline{\quad} = 9$

$4 + \underline{\quad} = 14$

$2 + \underline{\quad} = 4$

$2 + \underline{\quad} = 11$

$7 + \underline{\quad} = 14$

$9 + \underline{\quad} = 12$

$8 + \underline{\quad} = 12$

$10 + \underline{\quad} = 21$

Step 2 - cross out the sentence with each answer:

1. The villain lights a block of active tnt, then flies away using elytras.
2. The villain builds a speedy dirt bridge, then drinks a glowing potion of speed.
3. The villain spills hot glowing lava, then drinks a glowing potion of speed.
4. The villain wires up messy redstone lines, then drinks a glowing potion of speed.
5. The villain wires up messy redstone lines, then flies away using elytras.
6. The villain splashes a wild water bucket, then flies away using elytras.
7. The villain lights a block of active tnt, then tames a wild wolf.
8. The villain builds a speedy dirt bridge, then flies away using elytras.
9. The villain spills hot glowing lava, then rides off on a fast pig.
10. The villain splashes a wild water bucket, then tames a wild wolf.
11. The villain builds a speedy dirt bridge, then rides off on a fast pig.
12. The villain wires up messy redstone lines, then tames a wild wolf.

Answer Key

The Mystery of the Broken Blocks

Culprit: Joel

wires up messy redstone lines · tames a wild wolf · uses right hand to mine · pixelated green hair · slips on blue ice

Trail: Start 21 → Clue 1 18 → Clue 2 11 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE VILLAIN DOES NOT WEAR NETHERITE"

What number has 2 tens and 1 one? = 21 (T) · What number has 1 ten and 9 ones? = 19 (W) · What number has 9 tens and 6 ones? = 96 (E) · What number has 8 tens and 4 ones? = 84 (O) · What number has 8 tens and 6 ones? = 86 (S) · What number has 6 tens and 0 ones? = 60 (A) · What number has 9 tens and 0 ones? = 90 (D) · What number has 1 ten and 1 one? = 11 (I) · What number has 8 tens and 5 ones? = 85 (N) · What number has 1 ten and 6 ones? = 16 (H) · What number has 2 tens and 4 ones? = 24 (L) · What number has 8 tens and 8 ones? = 88 (V) · What number has 9 tens and 9 ones? = 99 (R)

Clue 2 (Skip counting): "RIGHT HAND MINING MARKS WERE LEFT ON THE WALL"

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, __, 45, 48 = 42 (R) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, __, 18, 20 = 16 (H) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, __, 60, 65 = 55 (G) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, __, 130, 140 = 120 (F) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, __, 28, 30 = 26 (D) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, __, 18, 21 = 15 (M) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, __, 39, 42 = 36 (E) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, __, 36, 39 = 33 (S) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, __, 20, 22 = 18 (T) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, __, 24, 26 = 22 (L) · Skip-count by 3s. Fill the blank: 3, 6, __, 12, 15 = 9 (N) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, __, 30, 33 = 27 (A) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, __, 90, 100 = 80 (K) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, __, 150, 160 = 140 (I) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, __, 40, 45 = 35 (W) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, __, 120, 130 = 110 (O)

Clue 3 (Addition): "THE VILLAIN SLIPPED ON A BLOCK OF BLUE ICE"

$38 + 28 = 66$ (T) · $25 + 28 = 53$ (F) · $20 + 28 = 48$ (H) · $32 + 52 = 84$ (K) · $36 + 51 = 87$ (S) · $10 + 25 = 35$ (E) · $22 + 15 = 37$ (P) · $9 + 12 = 21$ (B) · $28 + 46 = 74$ (N) · $37 + 39 = 76$ (C) · $45 + 51 = 96$ (V) · $44 + 36 = 80$ (I) · $40 + 18 = 58$ (U) · $30 + 63 = 93$ (A) · $33 + 30 = 63$ (O) · $50 + 39 = 89$ (D) · $17 + 14 = 31$ (L)

Clue 4 (Subtraction): "WE FOUND PIXELATED GREEN HAIR ON THE STEPS"

$43 - 23 = 20$ (W) · $74 - 2 = 72$ (O) · $75 - 15 = 60$ (D) · $46 - 19 = 27$ (T) · $59 - 18 = 41$ (H) · $38 - 3 = 35$ (X) · $54 - 5 = 49$ (S) · $68 - 17 = 51$ (L) · $33 - 8 = 25$ (P) · $63 - 9 = 54$ (N) · $75 - 38 = 37$ (A) · $41 - 22 = 19$ (G) · $50 - 33 = 17$ (U) · $115 - 35 = 80$ (I) · $87 - 34 = 53$ (R) · $110 - 34 = 76$ (F) · $66 - 8 = 58$ (E)

Clue 5 (Missing addends): surviving statement is box 12 → Joel

$2 + \underline{\quad} = 8 = 6$ · $10 + \underline{\quad} = 18 = 8$ · $10 + \underline{\quad} = 11 = 1$ · $4 + \underline{\quad} = 9 = 5$ · $4 + \underline{\quad} = 14 = 10$ · $2 + \underline{\quad} = 4 = 2$ · $2 + \underline{\quad} = 11 = 9$ · $7 + \underline{\quad} = 14 = 7$ · $9 + \underline{\quad} = 12 = 3$ · $8 + \underline{\quad} = 12 = 4$ · $10 + \underline{\quad} = 21 = 11$