



The Redstone Rogue

Grade 5 math · Fractions of a number, Order of operations, Multiplication, Rounding, Division · Reading level grades 3-4

Detective: _____ **Date:** _____

Someone hacked the server and stole the legendary Golden Apple! The Server Admin needs your help to track down the Redstone Rogue. Look at the clues, solve the math puzzles, and find out who did it before they crash the whole world!

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 Redstone Rogue is _____

Possible suspects

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

NAME	STOLEN BLOCK	SPECIAL GEAR	HANDEDNESS	HELMET TYPE	FOIL
Impulse	lava bucket tool	totem of undying	left handed builder	iron helmet	meowing cat
Grian	lava bucket tool	bouncy slime blocks	right handed builder	iron helmet	water bucket
Sparklez	lava bucket tool	totem of undying	left handed builder	diamond helmet	meowing cat
Ren	tnt explosive block	heavy netherite boots	left handed builder	diamond helmet	water bucket
Scar	diamond ore block	bouncy slime blocks	right handed builder	iron helmet	meowing cat
Lizzie	diamond ore block	teleporting ender pearl	left handed builder	iron helmet	meowing cat
Joel	glowing redstone lamp	totem of undying	right handed builder	gold helmet	meowing cat
Dream	lava bucket tool	totem of undying	left handed builder	gold helmet	meowing cat
Keralis	tnt explosive block	elytra glider wings	left handed builder	iron helmet	water bucket
Dan	glowing redstone lamp	elytra glider wings	left handed builder	gold helmet	weakness potion
Tango	glowing redstone lamp	heavy netherite boots	right handed builder	gold helmet	weakness potion
False	lava bucket tool	bouncy slime blocks	left handed builder	iron helmet	meowing cat
Stampy	tnt explosive block	teleporting ender pearl	left handed builder	iron helmet	meowing cat
Alex	sponge water block	elytra glider wings	left handed builder	gold helmet	weakness potion
Scott	glowing redstone lamp	totem of undying	left handed builder	iron helmet	water bucket
Cleo	glowing redstone lamp	elytra glider wings	left handed builder	iron helmet	meowing cat
Steve	sponge water block	elytra glider wings	left handed builder	iron helmet	water bucket
Martyn	lava bucket tool	teleporting ender pearl	left handed builder	iron helmet	meowing cat
Jimmy	sponge water block	elytra glider wings	left handed builder	gold helmet	water bucket
Cub	sponge water block	heavy netherite boots	left handed builder	iron helmet	meowing cat
Etho	tnt explosive block	bouncy slime blocks	right handed builder	gold helmet	meowing cat

CLUE 1

Fractions of a number

The admin finds a chest of iron bars. The thief took a fraction of the stack. Let us calculate how many bars are left to unlock the first clue.

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

T																	T
31	7	35	8	30	34	34	4	30	37	3	39	35	36	37	39	31	
12	4	38	38	5	4	37	35	37	3	35	38	21	35	4	38	34	

$1/3 \text{ of } 93 = \square \rightarrow \boxed{\text{T}}$

$1/3 \text{ of } 102 = \square \rightarrow \boxed{\text{L}}$

$5/6 \text{ of } 6 = \square \rightarrow \boxed{\text{Y}}$

$2/6 \text{ of } 105 = \square \rightarrow \boxed{\text{E}}$

$2/10 \text{ of } 105 = \square \rightarrow \boxed{\text{P}}$

$5/10 \text{ of } 74 = \square \rightarrow \boxed{\text{N}}$

$2/4 \text{ of } 6 = \square \rightarrow \boxed{\text{D}}$

$2/5 \text{ of } 75 = \square \rightarrow \boxed{\text{I}}$

$1/6 \text{ of } 48 = \square \rightarrow \boxed{\text{V}}$

$2/10 \text{ of } 190 = \square \rightarrow \boxed{\text{R}}$

$1/5 \text{ of } 195 = \square \rightarrow \boxed{\text{O}}$

$9/10 \text{ of } 40 = \square \rightarrow \boxed{\text{S}}$

$1/3 \text{ of } 21 = \square \rightarrow \boxed{\text{H}}$

$1/3 \text{ of } 12 = \square \rightarrow \boxed{\text{A}}$

$2/6 \text{ of } 36 = \square \rightarrow \boxed{\text{C}}$

Scratch space:

CLUE 2 Order of operations

We find a redstone repeater puzzle on the floor. To get the next clue, we must solve the order of operations to find the correct tick delay.

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

T									T							
40	9	74	59	36	59	32	74	46	40	32	55	12	46	74	59	
								T		T					T	
66	55	77	46	49	59	78	28	40	9	40	9	74	55	74	6	40
9	12	71	29													

$16 + 6 \times 4 = \square \rightarrow \text{T}$	$48 + 6 \times 3 = \square \rightarrow \text{B}$	$7 \times 6 - 14 = \square \rightarrow \text{I}$
$11 \times 5 - 23 = \square \rightarrow \text{P}$	$10 \times 10 - 29 = \square \rightarrow \text{N}$	$7 \times 11 - 3 = \square \rightarrow \text{E}$
$9 \times 8 - 23 = \square \rightarrow \text{K}$	$12 \times 4 - 19 = \square \rightarrow \text{D}$	$41 + 7 \times 2 = \square \rightarrow \text{L}$
$38 + 7 \times 3 = \square \rightarrow \text{S}$	$8 \times 6 - 2 = \square \rightarrow \text{C}$	$10 \times 9 - 13 = \square \rightarrow \text{O}$
$68 + 2 \times 5 = \square \rightarrow \text{W}$	$2 \times 7 - 5 = \square \rightarrow \text{H}$	$2 + 5 \times 2 = \square \rightarrow \text{A}$
$2 + 2 \times 2 = \square \rightarrow \text{F}$	$18 + 9 \times 2 = \square \rightarrow \text{U}$	

Scratch space:

CLUE 3
Multiplication facts (1-12)

The suspect ran through a wheat farm. They trampled several equal rows of crops. Multiply the rows and crops to see what was ruined and get a clue.

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

T																
54	45	21	9	44	1	1	55	44	5	56	55	5	55	20	55	36

64	56	50	2	55	2	21	50	20	44	5	63	22	55	54		

$6 \times 9 = \square \rightarrow$ T	$9 \times 5 = \square \rightarrow$ H	$1 \times 1 = \square \rightarrow$ L	$10 \times 5 = \square \rightarrow$ O
$4 \times 5 = \square \rightarrow$ W	$11 \times 2 = \square \rightarrow$ C	$9 \times 4 = \square \rightarrow$ Y	$9 \times 7 = \square \rightarrow$ G
$8 \times 8 = \square \rightarrow$ F	$7 \times 3 = \square \rightarrow$ E	$3 \times 3 = \square \rightarrow$ V	$2 \times 1 = \square \rightarrow$ M
$11 \times 5 = \square \rightarrow$ A	$5 \times 1 = \square \rightarrow$ N	$8 \times 7 = \square \rightarrow$ R	
$4 \times 11 = \square \rightarrow$ I			

Scratch space:

CLUE 4 Rounding

The server radar shows a strange coordinate number. The signal is blurry, so we must round it to the nearest ten to pinpoint the thief.

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

W																		
3700	300	30	170	9000	70	1100	500	70	20	2900	170	70	130	300	5000	110	300	3000

500	3000	3000	130	300	1300	2300	300	70	300

Round 3,654 to the nearest hundred

→

W

Round 8,568 to the nearest thousand

→

U

Round 23 to the nearest ten

→

I

Round 2,854 to the nearest hundred

→

R

Round 26 to the nearest ten

→

F

Round 2,285 to the nearest hundred

→

C

Round 1,317 to the nearest hundred

→

S

Round 319 to the nearest hundred

→

E

Round 173 to the nearest ten

→

O

Round 3,226 to the nearest thousand

→

T

Round 71 to the nearest ten

→

N

Round 4,944 to the nearest thousand

→

L

Round 455 to the nearest hundred

→

A

Round 107 to the nearest ten

→

M

Round 1,081 to the nearest hundred

→

D

Round 134 to the nearest ten

→

H

Scratch space:

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

We find a pack of tamed wolves. They need to share the remaining cooked porkchops equally. Divide the food to win their trust 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:

$10 \div 10 = \square$

$40 \div 4 = \square$

$81 \div 9 = \square$

$110 \div 10 = \square$

$70 \div 10 = \square$

$40 \div 8 = \square$

$22 \div 11 = \square$

$48 \div 12 = \square$

$12 \div 2 = \square$

$36 \div 3 = \square$

$9 \div 3 = \square$

Step 2 - cross out the sentence with each answer:

1. The villain poured a hot lava block down, then bounced over the wall on slime blocks.
2. The villain poured a hot lava block down, then flew away using some elytra wings.
3. The villain soaked up the water using a sponge, then held up a protective totem of undying.
4. The villain mined up the rare diamond ore, then flew away using some elytra wings.
5. The villain placed a primed block of tnt, then bounced over the wall on slime blocks.
6. The villain mined up the rare diamond ore, then bounced over the wall on slime blocks.
7. The villain mined up the rare diamond ore, then stomped off in heavy netherite boots.
8. The villain took the glowing redstone lamp, then flew away using some elytra wings.
9. The villain poured a hot lava block down, then held up a protective totem of undying.
10. The villain soaked up the water using a sponge, then stomped off in heavy netherite boots.
11. The villain mined up the rare diamond ore, then teleported away with a shiny ender pearl.
12. The villain soaked up the water using a sponge, then flew away using some elytra wings.

Answer Key

The Redstone Rogue

Culprit: Cleo

glowing redstone lamp · elytra glider wings · left handed builder · iron helmet · meowing cat

Trail: Start 21 → Clue 1 18 → Clue 2 13 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Fractions of a number): "THE VILLAIN DOES NOT CARRY AN ENDER PEARL"

$\frac{1}{3}$ of 93 = 31 (T) · $\frac{1}{3}$ of 102 = 34 (L) · $\frac{5}{6}$ of 6 = 5 (Y) · $\frac{2}{6}$ of 105 = 35 (E) · $\frac{2}{10}$ of 105 = 21 (P) · $\frac{5}{10}$ of 74 = 37 (N) · $\frac{2}{4}$ of 6 = 3 (D) · $\frac{2}{5}$ of 75 = 30 (I) · $\frac{1}{6}$ of 48 = 8 (V) · $\frac{2}{10}$ of 190 = 38 (R) · $\frac{1}{5}$ of 195 = 39 (O) · $\frac{9}{10}$ of 40 = 36 (S) · $\frac{1}{3}$ of 21 = 7 (H) · $\frac{1}{3}$ of 12 = 4 (A) · $\frac{2}{6}$ of 36 = 12 (C)

Clue 2 (Order of operations): "THE SUSPECT PLACES BLOCKS WITH THE LEFT HAND"

$16 + 6 \times 4 = 40$ (T) · $48 + 6 \times 3 = 66$ (B) · $7 \times 6 - 14 = 28$ (I) · $11 \times 5 - 23 = 32$ (P) · $10 \times 10 - 29 = 71$ (N) · $7 \times 11 - 3 = 74$ (E) · $9 \times 8 - 23 = 49$ (K) · $12 \times 4 - 19 = 29$ (D) · $41 + 7 \times 2 = 55$ (L) · $38 + 7 \times 3 = 59$ (S) · $8 \times 6 - 2 = 46$ (C) · $10 \times 9 - 13 = 77$ (O) · $68 + 2 \times 5 = 78$ (W) · $2 \times 7 - 5 = 9$ (H) · $2 + 5 \times 2 = 12$ (A) · $2 + 2 \times 2 = 6$ (F) · $18 + 9 \times 2 = 36$ (U)

Clue 3 (Multiplication facts (1-12)): "THE VILLAIN RAN AWAY FROM A MEOWING CAT"

$6 \times 9 = 54$ (T) · $9 \times 5 = 45$ (H) · $1 \times 1 = 1$ (L) · $10 \times 5 = 50$ (O) · $4 \times 5 = 20$ (W) · $11 \times 2 = 22$ (C) · $9 \times 4 = 36$ (Y) · $9 \times 7 = 63$ (G) · $8 \times 8 = 64$ (F) · $7 \times 3 = 21$ (E) · $3 \times 3 = 9$ (V) · $2 \times 1 = 2$ (M) · $11 \times 5 = 55$ (A) · $5 \times 1 = 5$ (N) · $8 \times 7 = 56$ (R) · $4 \times 11 = 44$ (I)

Clue 4 (Rounding): "WE FOUND AN IRON HELMET AT THE SCENE"

Round 3,654 to the nearest hundred = 3700 (W) · Round 8,568 to the nearest thousand = 9000 (U) · Round 23 to the nearest ten = 20 (I) · Round 2,854 to the nearest hundred = 2900 (R) · Round 26 to the nearest ten = 30 (F) · Round 2,285 to the nearest hundred = 2300 (C) · Round 1,317 to the nearest hundred = 1300 (S) · Round 319 to the nearest hundred = 300 (E) · Round 173 to the nearest ten = 170 (O) · Round 3,226 to the nearest thousand = 3000 (T) · Round 71 to the nearest ten = 70 (N) · Round 4,944 to the nearest thousand = 5000 (L) · Round 455 to the nearest hundred = 500 (A) · Round 107 to the nearest ten = 110 (M) · Round 1,081 to the nearest hundred = 1100 (D) · Round 134 to the nearest ten = 130 (H)

Clue 5 (Division facts (1-12)): surviving statement is box 8 → Cleo

$10 \div 10 = 1$ · $40 \div 4 = 10$ · $81 \div 9 = 9$ · $110 \div 10 = 11$ · $70 \div 10 = 7$ · $40 \div 8 = 5$ · $22 \div 11 = 2$ · $48 \div 12 = 4$ · $12 \div 2 = 6$ · $36 \div 3 = 12$ · $9 \div 3 = 3$