



The Golden Redstone Core Mystery

Grade 2 math · Place value, Addition, Subtraction, Multiplication, Missing addends · Reading level grades 3-4

Detective: _____ Date: _____

Someone broke into the Blocky Biotech Lab and snatched the Golden Redstone Core! If they power it up, they will control every machine in the biome. Use your math skills and search for clues to shut down the rogue bot.

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 rogue bot is _____

Possible suspects

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

NAME	MINING POWER	BACKPACK TOOL	HAND GRIP	HEAD WIRES	ROBOT GLITCH
Ada	laser mining	solar shield	left grip	green wires	water splash
Creeper	super jumping	sonic buzzer	right grip	green wires	rust potion
Geary	fast building	rocket boots	right grip	green wires	rust potion
Clank	super jumping	solar shield	right grip	green wires	water splash
Widget	laser mining	sonic buzzer	right grip	blue wires	sticky slime
Byte	fast building	solar shield	left grip	blue wires	water splash
Sprocket	fast building	magnet arm	right grip	green wires	sticky slime
Pixel	super jumping	sonic buzzer	right grip	green wires	water splash
Cinder	super jumping	hover fan	left grip	green wires	water splash
Screwy	fast building	rocket boots	right grip	blue wires	water splash
Goldie	fast building	magnet arm	right grip	red wires	rust potion
Jeb	laser mining	solar shield	right grip	blue wires	rust potion
Steve	fast building	sonic buzzer	left grip	green wires	water splash
Voxel	super jumping	sonic buzzer	right grip	green wires	sticky slime
Endy	fast building	hover fan	left grip	red wires	sticky slime
Redstone	fast building	sonic buzzer	left grip	green wires	sticky slime
Cobble	lava walking	rocket boots	right grip	green wires	rust potion
Alex	lava walking	sonic buzzer	left grip	green wires	water splash
Rusty	fast building	magnet arm	left grip	green wires	water splash
Copper	teleporting	magnet arm	left grip	red wires	water splash
Sparky	teleporting	sonic buzzer	left grip	green wires	sticky slime

CLUE 1 Place value

The security monitor shows a digital grid. To read the secret code, find which digit is in the tens place on the control panel.

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

A number line from 0 to 100. The line is divided into segments by vertical tick marks. Below the line, numbers are written in each segment. Some segments contain a box with the letter 'T'.

Segment	Number	Contains 'T'
1	45	Yes
2	48	No
3	59	No
4	39	No
5	46	No
6	97	No
7	46	No
8	45	Yes
9	48	No
10	73	No
11	59	No
12	75	No
13	88	No
14	46	No
15	59	No
16	68	No
17	21	No
18	46	No
19	45	Yes

What number has 4 tens and 5 ones? → T

What number has 7 tens and 5 ones? → **F**

What number has 3 tens and 9 ones? → **R**

What number has 6 tens and 2 ones? → **V**

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

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

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

What number has 5 tens and 9 ones? → **E**

What number has 3 tens and 1 one? → **A**

What number has 9 tens and 7 ones? → **B**

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

What number has 4 tens and 6 ones? →

What number has 7 tens and 3 ones? →

Scratch space:

CLUE 2 Addition

We found a chest filled with spare redstone repeaters and pistons. Add them up to see how many parts the thief dropped.

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

T																T		
28	65	79	33	54	72	72	41	33	54	86	33	41	79	25		28	65	79

							T					T					
27	74	72	33	41	62	78	28	65	86	74	79	46	28	90	54	78	26

$13 + 15 = \square \rightarrow \text{[T]}$	$34 + 38 = \square \rightarrow \text{[O]}$	$17 + 10 = \square \rightarrow \text{[B]}$
$45 + 41 = \square \rightarrow \text{[A]}$	$27 + 14 = \square \rightarrow \text{[K]}$	$9 + 16 = \square \rightarrow \text{[D]}$
$21 + 12 = \square \rightarrow \text{[C]}$	$31 + 15 = \square \rightarrow \text{[F]}$	$51 + 23 = \square \rightarrow \text{[L]}$
$55 + 24 = \square \rightarrow \text{[E]}$	$36 + 18 = \square \rightarrow \text{[R]}$	$19 + 7 = \square \rightarrow \text{[P]}$
$37 + 53 = \square \rightarrow \text{[G]}$	$42 + 20 = \square \rightarrow \text{[W]}$	$42 + 36 = \square \rightarrow \text{[I]}$
$19 + 46 = \square \rightarrow \text{[H]}$		

Scratch space:

CLUE 3

Subtraction

The power level in the robot recharge station is dropping. Subtract the leftover fuel cells to see how much energy the thief drained.

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

A 2x10 grid of boxes. The top row contains the following values from left to right: 'A' (orange), 63, 36, 29, 31, 63 (orange), 36, 88, 55, 21, 48, 63 (orange), 64, 38, 17. The bottom row contains the following values from left to right: 36, 88, 55, 17, 64, 38, 59, 64, 88, 38, 36, 74, 36, 64, 38, 13. The boxes containing 'A' are highlighted in orange.

$94 - 31 = \boxed{} \rightarrow \boxed{\text{A}}$

$95 - 36 = \boxed{} \rightarrow \boxed{\text{D}}$

$45 - 9 = \boxed{} \rightarrow \boxed{\mathbf{S}}$

$64 - 26 = \boxed{} \rightarrow \boxed{\text{E}}$

$103 - 29 = \boxed{} \rightarrow \boxed{\text{Y}}$

33 - 4 = → **P**

$47 - 30 = \boxed{} \rightarrow \boxed{\text{R}}$

$63 - 15 = \boxed{} \rightarrow \boxed{\text{W}}$

$16 - 3 = \boxed{} \rightarrow \boxed{\text{M}}$

97 - 9 = → **H**

$$40 - 19 = \boxed{} \rightarrow \boxed{\text{F}}$$

$72 - 17 = \boxed{} \rightarrow \boxed{0}$

59 - 28 = → **L**

$85 - 21 = \boxed{} \rightarrow \boxed{\text{T}}$

Scratch space:

CLUE 4

Multiplication facts (1-12)

There are rows of charging docks lining the wall. Multiply the number of docks in each row to find the total charging capacity.

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

W												W						
1	60	77	40	16	2	22	7	21	60	60	2	1	3	21	60	72	9	45
45	8	60	88	21	3	80	60	72	88	60	2	60						

$1 \times 1 = \square \rightarrow \boxed{\text{W}}$

$1 \times 2 = \square \rightarrow \boxed{\text{N}}$

$10 \times 4 = \square \rightarrow \boxed{\text{O}}$

$7 \times 11 = \square \rightarrow \boxed{\text{F}}$

$2 \times 11 = \square \rightarrow \boxed{\text{D}}$

$7 \times 3 = \square \rightarrow \boxed{\text{R}}$

$1 \times 3 = \square \rightarrow \boxed{\text{I}}$

$5 \times 9 = \square \rightarrow \boxed{\text{T}}$

$4 \times 2 = \square \rightarrow \boxed{\text{H}}$

$9 \times 1 = \square \rightarrow \boxed{\text{A}}$

$4 \times 4 = \square \rightarrow \boxed{\text{U}}$

$1 \times 7 = \square \rightarrow \boxed{\text{G}}$

$8 \times 9 = \square \rightarrow \boxed{\text{S}}$

$8 \times 11 = \square \rightarrow \boxed{\text{C}}$

$8 \times 10 = \square \rightarrow \boxed{\text{M}}$

$5 \times 12 = \square \rightarrow \boxed{\text{E}}$

Scratch space:

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

We need to calibrate the radar. Figure out what missing number of signals we need to add to reach the target total.

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:

$2 + \underline{\quad} = 5$

$6 + \underline{\quad} = 8$

$5 + \underline{\quad} = 9$

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

$3 + \underline{\quad} = 9$

$3 + \underline{\quad} = 10$

$10 + \underline{\quad} = 19$

$5 + \underline{\quad} = 15$

$1 + \underline{\quad} = 13$

$7 + \underline{\quad} = 8$

$1 + \underline{\quad} = 6$

Step 2 - cross out the sentence with each answer:

1. The villain strides across the hot lava lake, then pulls iron ingots with a magnet arm.
2. The villain stacks blocks to reach the ceiling, then pulls iron ingots with a magnet arm.
3. The villain uses a mining laser to cut through bedrock, then shines a solar shield to blind the cameras.
4. The villain strides across the hot lava lake, then shatters glass with a sonic buzzer.
5. The villain teleports past the iron golems, then drifts over traps with a hover fan.
6. The villain leaps over the obsidian wall, then shines a solar shield to blind the cameras.
7. The villain uses a mining laser to cut through bedrock, then pulls iron ingots with a magnet arm.
8. The villain stacks blocks to reach the ceiling, then shatters glass with a sonic buzzer.
9. The villain leaps over the obsidian wall, then shatters glass with a sonic buzzer.
10. The villain strides across the hot lava lake, then blasts away with noisy rocket boots.
11. The villain uses a mining laser to cut through bedrock, then blasts away with noisy rocket boots.
12. The villain leaps over the obsidian wall, then blasts away with noisy rocket boots.

Answer Key

The Golden Redstone Core Mystery

Culprit: Steve

fast building · sonic buzzer · left grip · green wires · water splash

Trail: Start 21 → Clue 1 19 → Clue 2 8 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE ROBO THIEF DOES NOT HAVE A HOVER FAN"

What number has 4 tens and 5 ones? = 45 (T) · What number has 7 tens and 5 ones? = 75 (F) · What number has 3 tens and 9 ones? = 39 (R) · What number has 6 tens and 2 ones? = 62 (V) · What number has 6 tens and 8 ones? = 68 (S) · What number has 4 tens and 8 ones? = 48 (H) · What number has 8 tens and 8 ones? = 88 (D) · What number has 5 tens and 9 ones? = 59 (E) · What number has 3 tens and 1 one? = 31 (A) · What number has 9 tens and 7 ones? = 97 (B) · What number has 2 tens and 1 one? = 21 (N) · What number has 4 tens and 6 ones? = 46 (O) · What number has 7 tens and 3 ones? = 73 (I)

Clue 2 (Addition): "THE CROOK CRACKED THE BLOCK WITH A LEFT GRIP"

$13 + 15 = 28$ (T) · $34 + 38 = 72$ (O) · $17 + 10 = 27$ (B) · $45 + 41 = 86$ (A) · $27 + 14 = 41$ (K) · $9 + 16 = 25$ (D) · $21 + 12 = 33$ (C) · $31 + 15 = 46$ (F) · $51 + 23 = 74$ (L) · $55 + 24 = 79$ (E) · $36 + 18 = 54$ (R) · $19 + 7 = 26$ (P) · $37 + 53 = 90$ (G) · $42 + 20 = 62$ (W) · $42 + 36 = 78$ (I) · $19 + 46 = 65$ (H)

Clue 3 (Subtraction): "A SPLASH OF WATER SHORTED THE SYSTEM"

$94 - 31 = 63$ (A) · $95 - 36 = 59$ (D) · $45 - 9 = 36$ (S) · $64 - 26 = 38$ (E) · $103 - 29 = 74$ (Y) · $33 - 4 = 29$ (P) · $47 - 30 = 17$ (R) · $63 - 15 = 48$ (W) · $16 - 3 = 13$ (M) · $97 - 9 = 88$ (H) · $40 - 19 = 21$ (F) · $72 - 17 = 55$ (O) · $59 - 28 = 31$ (L) · $85 - 21 = 64$ (T)

Clue 4 (Multiplication facts (1-12)): "WE FOUND GREEN WIRES AT THE CRIME SCENE"

$1 \times 1 = 1$ (W) · $1 \times 2 = 2$ (N) · $10 \times 4 = 40$ (O) · $7 \times 11 = 77$ (F) · $2 \times 11 = 22$ (D) · $7 \times 3 = 21$ (R) · $1 \times 3 = 3$ (I) · $5 \times 9 = 45$ (T) · $4 \times 2 = 8$ (H) · $9 \times 1 = 9$ (A) · $4 \times 4 = 16$ (U) · $1 \times 7 = 7$ (G) · $8 \times 9 = 72$ (S) · $8 \times 11 = 88$ (C) · $8 \times 10 = 80$ (M) · $5 \times 12 = 60$ (E)

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

$2 + \underline{\quad} = 5 = 3$ · $6 + \underline{\quad} = 8 = 2$ · $5 + \underline{\quad} = 9 = 4$ · $10 + \underline{\quad} = 21 = 11$ · $3 + \underline{\quad} = 9 = 6$ · $3 + \underline{\quad} = 10 = 7$ · $10 + \underline{\quad} = 19 = 9$ · $5 + \underline{\quad} = 15 = 10$ · $1 + \underline{\quad} = 13 = 12$ · $7 + \underline{\quad} = 8 = 1$ · $1 + \underline{\quad} = 6 = 5$