



The Runaway Robot Riddle

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

Detective: _____ Date: _____

Oh no! A rogue bot has escaped from the repair bay and scrambled the main control system. We need to track it down before it causes more mischief around the factory!

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	PRIMARY TOOL	BACKUP GEAR	LED COLOR	ANTENNA STYLE	SYSTEM VULNERABILITY
Alan	Plasma Cutter	Smoke Screen	Yellow Glow	Star Sensor	Rust Spray
Clank	Magnet Grip	Force Field	Yellow Glow	Star Sensor	Magnet Wave
Copper	Sonic Drill	Force Field	Blue Glow	Dish Receiver	Magnet Wave
Ada	Magnet Grip	Siren Horn	Yellow Glow	Dish Receiver	Magnet Wave
Sparky	Plasma Cutter	Force Field	Yellow Glow	Dish Receiver	Magnet Wave
Robbie	Laser Welder	Turbo Booster	Blue Glow	Star Sensor	Static Shock
Circuit	Nano Wrench	Force Field	Blue Glow	Dish Receiver	Rust Spray
Gizmo	Laser Welder	Glitch Beam	Yellow Glow	Coil Wire	Static Shock
Vector	Plasma Cutter	Force Field	Blue Glow	Star Sensor	Rust Spray
Gears	Magnet Grip	Smoke Screen	Blue Glow	Dish Receiver	Magnet Wave
Pixel	Laser Welder	Force Field	Yellow Glow	Dish Receiver	Magnet Wave
Optimus	Sonic Drill	Glitch Beam	Yellow Glow	Dish Receiver	Magnet Wave
Zuma	Sonic Drill	Turbo Booster	Yellow Glow	Dish Receiver	Magnet Wave
Booster	Magnet Grip	Glitch Beam	Blue Glow	Dish Receiver	Magnet Wave
Bolt	Nano Wrench	Turbo Booster	Yellow Glow	Dish Receiver	Static Shock
Isaac	Sonic Drill	Turbo Booster	Blue Glow	Star Sensor	Rust Spray
Byte	Nano Wrench	Force Field	Yellow Glow	Dish Receiver	Static Shock
Rosie	Plasma Cutter	Glitch Beam	Blue Glow	Star Sensor	Rust Spray
Tinny	Laser Welder	Siren Horn	Yellow Glow	Star Sensor	Magnet Wave
Beep	Sonic Drill	Force Field	Yellow Glow	Dish Receiver	Rust Spray
Geary	Plasma Cutter	Smoke Screen	Yellow Glow	Coil Wire	Static Shock

CLUE 1 Rounding

The lab radar scans for heavy bots, but its screen only shows rounded weights. Round the numbers on the radar to reveal the first scrap of code!

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

T					T							T			
290	200	70	700	9000	290	5000	9000	70	430	3000	9000	290	2300	430	70
			T												
1300	110	2000	290	1700	200	700	70	170	300						

Round 286 to the nearest ten → **T**

Round 8,735 to the nearest thousand → **O**

Round 4,924 to the nearest thousand → **D**

Round 689 to the nearest hundred → **B**

Round 284 to the nearest hundred → **M**

Round 73 to the nearest ten → **E**

Round 156 to the nearest hundred → **H**

Round 3,360 to the nearest thousand → **N**

Round 2,364 to the nearest thousand → **I**

Round 428 to the nearest ten → **S**

Round 171 to the nearest ten → **A**

Round 2,318 to the nearest hundred → **U**

Round 1,343 to the nearest hundred → **G**

Round 107 to the nearest ten → **L**

Round 1,748 to the nearest hundred → **C**

Scratch space:

CLUE 2 Addition

To open the locked storage bin, we must total up all the spare copper wires we found. Add the wire counts together to unlock the security camera!

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

A																			
6434	8948	2683	4990	4990	4818	3875	9077	4990	4818	3875	3875	6434	2060	4990	2683	7724	6319		
4818	6439	6319	3157	2683	3875	6434	4990	4990											

$4134 + 2300 = \square \rightarrow \text{A}$	$2046 + 2772 = \square \rightarrow \text{O}$	$2254 + 4065 = \square \rightarrow \text{T}$
$1542 + 2333 = \square \rightarrow \text{W}$	$1157 + 903 = \square \rightarrow \text{S}$	$3144 + 4580 = \square \rightarrow \text{F}$
$975 + 2182 = \square \rightarrow \text{H}$	$1623 + 1060 = \square \rightarrow \text{E}$	$3684 + 2755 = \square \rightarrow \text{N}$
$2272 + 2718 = \square \rightarrow \text{L}$	$3552 + 5525 = \square \rightarrow \text{G}$	$2863 + 6085 = \square \rightarrow \text{Y}$

Scratch space:

CLUE 3

Subtraction

A rogue bot drained some power cells! Find out how much energy is missing by subtracting the leftover power from the starting amount.

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

A								A						A		
4933	1950	4896	5838	6880	8307	6965	6151	4933	6965	8307	4864	4896	4523	4933	5690	4864
1950	4896	6880	2227	1950	4896	7222	4864	1791	6880	4896						

$7783 - 2850 = \square \rightarrow \boxed{A}$

$5501 - 3710 = \square \rightarrow \boxed{B}$

$8401 - 1521 = \square \rightarrow \boxed{O}$

$6171 - 1648 = \square \rightarrow \boxed{W}$

$5162 - 3212 = \square \rightarrow \boxed{S}$

$8458 - 1236 = \square \rightarrow \boxed{H}$

$10757 - 3792 = \square \rightarrow \boxed{G}$

$6495 - 4268 = \square \rightarrow \boxed{P}$

$9010 - 4114 = \square \rightarrow \boxed{T}$

$9413 - 3723 = \square \rightarrow \boxed{V}$

$5854 - 990 = \square \rightarrow \boxed{E}$

$6960 - 809 = \square \rightarrow \boxed{M}$

$9924 - 1617 = \square \rightarrow \boxed{N}$

$10400 - 4562 = \square \rightarrow \boxed{R}$

Scratch space:

CLUE 4
Multiplication facts (1-12)

The workbench has several boxes of replacement microchips. Multiply the boxes by the chips inside each box to trace the escape path!

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

A														A	
108	66	90	132	15	21	1	110	1	90	28	1	21	6	108	132

54	1	35	22	72	1	15	90	96	66

$9 \times 12 = \square \rightarrow \text{A}$

$5 \times 7 = \square \rightarrow \text{F}$

$2 \times 3 = \square \rightarrow \text{W}$

$1 \times 1 = \square \rightarrow \text{E}$

$4 \times 7 = \square \rightarrow \text{V}$

$11 \times 10 = \square \rightarrow \text{C}$

$3 \times 5 = \square \rightarrow \text{H}$

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

$11 \times 12 = \square \rightarrow \text{S}$

$9 \times 8 = \square \rightarrow \text{B}$

$11 \times 6 = \square \rightarrow \text{D}$

$8 \times 12 = \square \rightarrow \text{N}$

$2 \times 11 = \square \rightarrow \text{T}$

$9 \times 6 = \square \rightarrow \text{L}$

$10 \times 9 = \square \rightarrow \text{I}$

Scratch space:

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

We need to share the backup battery packs equally among our search drones. Divide the batteries to crack the bot's final frequency!

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:

$44 \div 4 = \boxed{}$

$16 \div 8 = \boxed{}$

$28 \div 7 = \boxed{}$

$12 \div 2 = \boxed{}$

$9 \div 3 = \boxed{}$

$96 \div 8 = \boxed{}$

$108 \div 12 = \boxed{}$

$56 \div 7 = \boxed{}$

$120 \div 12 = \boxed{}$

$35 \div 7 = \boxed{}$

$70 \div 10 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain melted the metal vault lock, then blocked the hallway with a shimmering wall.
2. The villain tunneled beneath the secure concrete floor, then zoomed away at top speed.
3. The villain melted the metal vault lock, then corrupted the security camera feed.
4. The villain sliced through the heavy steel beams, then blocked the hallway with a shimmering wall.
5. The villain tunneled beneath the secure concrete floor, then hid the escape path in dark fumes.
6. The villain melted the metal vault lock, then zoomed away at top speed.
7. The villain tunneled beneath the secure concrete floor, then corrupted the security camera feed.
8. The villain sliced through the heavy steel beams, then zoomed away at top speed.
9. The villain sliced through the heavy steel beams, then corrupted the security camera feed.
10. The villain unscrewed the main control panel, then scared the guard dogs with a loud beep.
11. The villain yanked the iron door off its hinges, then scared the guard dogs with a loud beep.
12. The villain yanked the iron door off its hinges, then hid the escape path in dark fumes.

Answer Key

The Runaway Robot Riddle

Culprit: Pixel

Laser Welder · Force Field · Yellow Glow · Dish Receiver · Magnet Wave

Trail: Start 21 → Clue 1 17 → Clue 2 11 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE BOT DOES NOT USE GLITCH BEAM"

Round 286 to the nearest ten = 290 (T) · Round 8,735 to the nearest thousand = 9000 (O) · Round 4,924 to the nearest thousand = 5000 (D) · Round 689 to the nearest hundred = 700 (B) · Round 284 to the nearest hundred = 300 (M) · Round 73 to the nearest ten = 70 (E) · Round 156 to the nearest hundred = 200 (H) · Round 3,360 to the nearest thousand = 3000 (N) · Round 2,364 to the nearest thousand = 2000 (I) · Round 428 to the nearest ten = 430 (S) · Round 171 to the nearest ten = 170 (A) · Round 2,318 to the nearest hundred = 2300 (U) · Round 1,343 to the nearest hundred = 1300 (G) · Round 107 to the nearest ten = 110 (L) · Round 1,748 to the nearest hundred = 1700 (C)

Clue 2 (Addition): "A YELLOW GLOW WAS LEFT ON THE WALL"

4134 + 2300 = 6434 (A) · 2046 + 2772 = 4818 (O) · 2254 + 4065 = 6319 (T) · 1542 + 2333 = 3875 (W) · 1157 + 903 = 2060 (S) · 3144 + 4580 = 7724 (F) · 975 + 2182 = 3157 (H) · 1623 + 1060 = 2683 (E) · 3684 + 2755 = 6439 (N) · 2272 + 2718 = 4990 (L) · 3552 + 5525 = 9077 (G) · 2863 + 6085 = 8948 (Y)

Clue 3 (Subtraction): "A STRONG MAGNET WAVE STOPS THE BOT"

7783 - 2850 = 4933 (A) · 5501 - 3710 = 1791 (B) · 8401 - 1521 = 6880 (O) · 6171 - 1648 = 4523 (W) · 5162 - 3212 = 1950 (S) · 8458 - 1236 = 7222 (H) · 10757 - 3792 = 6965 (G) · 6495 - 4268 = 2227 (P) · 9010 - 4114 = 4896 (T) · 9413 - 3723 = 5690 (V) · 5854 - 990 = 4864 (E) · 6960 - 809 = 6151 (M) · 9924 - 1617 = 8307 (N) · 10400 - 4562 = 5838 (R)

Clue 4 (Multiplication facts (1-12)): "A DISH RECEIVER WAS LEFT BEHIND"

$9 \times 12 = 108$ (A) · $5 \times 7 = 35$ (F) · $2 \times 3 = 6$ (W) · $1 \times 1 = 1$ (E) · $4 \times 7 = 28$ (V) · $11 \times 10 = 110$ (C) · $3 \times 5 = 15$ (H) · $3 \times 7 = 21$ (R) · $11 \times 12 = 132$ (S) · $9 \times 8 = 72$ (B) · $11 \times 6 = 66$ (D) · $8 \times 12 = 96$ (N) · $2 \times 11 = 22$ (T) · $9 \times 6 = 54$ (L) · $10 \times 9 = 90$ (I)

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

$44 \div 4 = 11$ · $16 \div 8 = 2$ · $28 \div 7 = 4$ · $12 \div 2 = 6$ · $9 \div 3 = 3$ · $96 \div 8 = 12$ · $108 \div 12 = 9$ · $56 \div 7 = 8$ · $120 \div 12 = 10$ · $35 \div 7 = 5$ · $70 \div 10 = 7$