The Golden Power Core Mystery

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

Detective: _____ **Date:** _____

Oh no! A rogue glitch bot sneaked into the Robo-City Scrap Yard. It stole the precious Golden Power Core! We must find the right robot before its battery runs out.

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 glitch bot is _____

Possible suspects

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

NAME	TOOL ARM	SUPER SENSOR	SCREEN LIGHT	ANTENNA WIRE	SYSTEM GLITCH
Nano	Claw Grabber	Sonar Ear	Red Screen	Copper Coil	Magnet Pull
Buster	Saw Blade	Heat Sensor	Red Screen	Gold Spike	Magnet Pull
Sparky	Mega Magnet	Radar Eye	Blue Screen	Silver Loop	Dust Clog
Coco	Drill Finger	Radar Eye	Blue Screen	Gold Spike	Dust Clog
Zip	Saw Blade	Metal Sniffer	Red Screen	Gold Spike	Dust Clog
Widget	Claw Grabber	Night Vision	Red Screen	Gold Spike	Water Splash
Clank	Claw Grabber	Metal Sniffer	Red Screen	Silver Loop	Magnet Pull
Tinny	Mega Magnet	Radar Eye	Blue Screen	Silver Loop	Magnet Pull
Scraps	Drill Finger	Night Vision	Blue Screen	Copper Coil	Water Splash
Gizmo	Mega Magnet	Night Vision	Blue Screen	Gold Spike	Dust Clog
Dino	Drill Finger	Radar Eye	Red Screen	Copper Coil	Water Splash
Sprocket	Claw Grabber	Night Vision	Blue Screen	Copper Coil	Dust Clog
Otto	Claw Grabber	Heat Sensor	Red Screen	Gold Spike	Water Splash
Pixel	Claw Grabber	Sonar Ear	Red Screen	Gold Spike	Water Splash
Beep	Laser Welder	Heat Sensor	Blue Screen	Copper Coil	Water Splash
Geary	Drill Finger	Night Vision	Red Screen	Gold Spike	Water Splash
Toby	Saw Blade	Heat Sensor	Blue Screen	Gold Spike	Dust Clog
Chip	Mega Magnet	Heat Sensor	Red Screen	Gold Spike	Magnet Pull
Zippy	Laser Welder	Sonar Ear	Blue Screen	Gold Spike	Dust Clog
Bolt	Saw Blade	Night Vision	Blue Screen	Gold Spike	Water Splash
Rover	Saw Blade	Night Vision	Red Screen	Gold Spike	Water Splash

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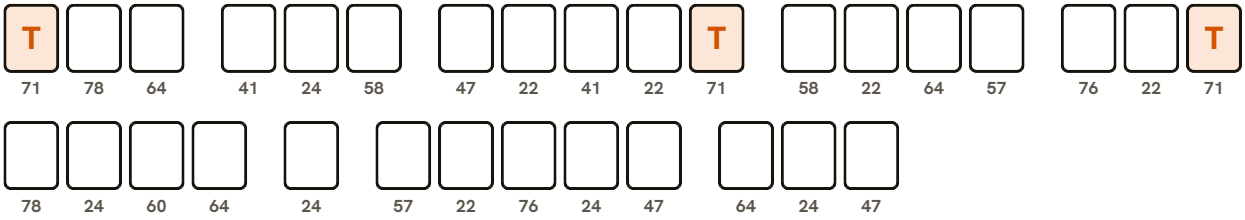
CLUE 1 Addition

> Let us count the extra bolts in the bin. Add the two piles together to find the code.

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



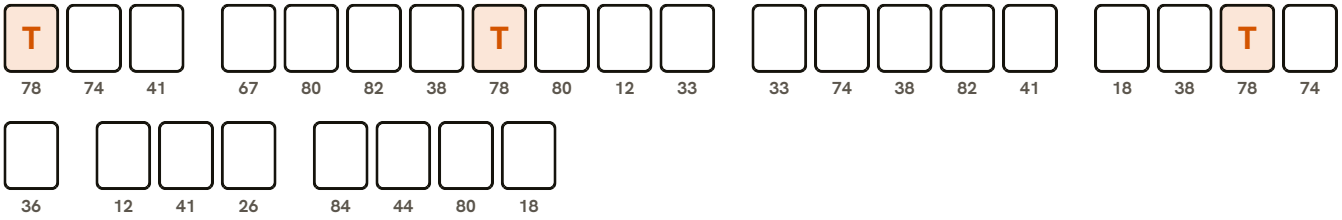
43 + 28 = ☐ → T	22 + 35 = ☐ → S	46 + 30 = ☐ → N
15 + 7 = ☐ → O	44 + 34 = ☐ → H	10 + 14 = ☐ → A
28 + 30 = ☐ → D	23 + 41 = ☐ → E	19 + 28 = ☐ → R
17 + 24 = ☐ → B	42 + 18 = ☐ → V	

Scratch space:

CLUE 2 Subtraction

The bot lost some battery power while running away. Subtract the used energy to see what is left.

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



109 - 31 = ☐ → T

46 - 34 = ☐ → R

20 - 2 = ☐ → W

69 - 25 = ☐ → L

124 - 40 = ☐ → G

65 - 29 = ☐ → A

84 - 2 = ☐ → N

74 - 36 = ☐ → I

86 - 6 = ☐ → O

80 - 39 = ☐ → E

111 - 37 = ☐ → H

93 - 26 = ☐ → M

51 - 18 = ☐ → S

66 - 40 = ☐ → D

Scratch space:

CLUE 3 Place value

The scrap scanner has tens and ones on the screen. Look at the places to read the number.

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

A						A								A									
18	13	77	38	50	80	18	87	32	51	29	88	38	18	29	63								
80	45	38	38	29	87	77	88	45	87														

What number has 1 ten and 8 ones? ☐ → A

What number has 5 tens and 0 ones? ☐ → D

What number has 2 tens and 9 ones? ☐ → S

What number has 4 tens and 5 ones? ☐ → I

What number has 1 ten and 3 ones? ☐ → C

What number has 5 tens and 1 one? ☐ → R

What number has 8 tens and 8 ones? ☐ → P

What number has 3 tens and 2 ones? ☐ → E

What number has 7 tens and 7 ones? ☐ → O

What number has 8 tens and 7 ones? ☐ → T

What number has 6 tens and 3 ones? ☐ → H

What number has 3 tens and 8 ones? ☐ → L

What number has 8 tens and 0 ones? ☐ → W

Scratch space:

CLUE 4 Skip counting

We need to count the robot legs in the dark hallway. Skip count by twos to find the answer.

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

W																								
26	8	16	21	140	27	130	33	36	110	33	30	90	12	21	9	130	36	90	55	28	8			

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

Skip-count by 3s. Fill the blank: 3, 6, ___, 12, 15 ☐ → L

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

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, ___, 30, 32 ☐ → K

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, ___, 33, 36 ☐ → R

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

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, ___, 140, 150 ☐ → D

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, ___, 18, 20 ☐ → F

Skip-count by 2s. Fill the blank: 2, 4, 6, ___, 10, 12 ☐ → E

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, ___, 24, 27 ☐ → O

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, ___, 100, 110 ☐ → P

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

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

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, ___, 14, 16 ☐ → **G**

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

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

Scratch space:

CLUE 5 Missing addends - the last clue

> The power pad needs ten units to start. How many more units must we add to make ten.

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:

6 + ___ = 15 ☐	5 + ___ = 15 ☐	1 + ___ = 4 ☐	9 + ___ = 16 ☐
10 + ___ = 21 ☐	10 + ___ = 15 ☐	7 + ___ = 8 ☐	1 + ___ = 9 ☐
1 + ___ = 7 ☐	8 + ___ = 10 ☐	6 + ___ = 18 ☐	

Step 2 - cross out the sentence with each answer:

1. The villain melts the metal vault with a laser welder, then hears the alarm early with a sonar ear.
2. The villain digs under the lab with a drill finger, then tracks the patrol path using a radar eye.
3. The villain cuts the security fence with a saw blade, then escapes in the dark using night vision.
4. The villain snatches the golden battery with a claw grabber, then spots the guards by using a heat sensor.
5. The villain digs under the lab with a drill finger, then finds the hidden scrap pile with a metal sniffer.
6. The villain cuts the security fence with a saw blade, then finds the hidden scrap pile with a metal sniffer.
7. The villain snatches the golden battery with a claw grabber, then tracks the patrol path using a radar eye.
8. The villain lifts the steel door with a mega magnet, then spots the guards by using a heat sensor.
9. The villain digs under the lab with a drill finger, then escapes in the dark using night vision.
10. The villain snatches the golden battery with a claw grabber, then escapes in the dark using night vision.
11. The villain melts the metal vault with a laser welder, then spots the guards by using a heat sensor.
12. The villain lifts the steel door with a mega magnet, then escapes in the dark using night vision.

TEACHER / PARENT

Answer Key

The Golden Power Core Mystery

Culprit: Otto

Claw Grabber · Heat Sensor · Red Screen · Gold Spike · Water Splash

Trail: Start 21 → Clue 1 18 → Clue 2 9 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE BAD ROBOT DOES NOT HAVE A SONAR EAR"

43 + 28 = 71 (T) · 22 + 35 = 57 (S) · 46 + 30 = 76 (N) · 15 + 7 = 22 (O) · 44 + 34 = 78 (H) · 10 + 14 = 24 (A) · 28 + 30 = 58 (D) · 23 + 41 = 64 (E) · 19 + 28 = 47 (R) · 17 + 24 = 41 (B) · 42 + 18 = 60 (V)

Clue 2 (Subtraction): "THE MONITORS SHINE WITH A RED GLOW"

109 - 31 = 78 (T) · 46 - 34 = 12 (R) · 20 - 2 = 18 (W) · 69 - 25 = 44 (L) · 124 - 40 = 84 (G) · 65 - 29 = 36 (A) · 84 - 2 = 82 (N) · 74 - 36 = 38 (I) · 86 - 6 = 80 (O) · 80 - 39 = 41 (E) · 111 - 37 = 74 (H) · 93 - 26 = 67 (M) · 51 - 18 = 33 (S) · 66 - 40 = 26 (D)

Clue 3 (Place value): "A COLD WATER SPLASH WILL STOP IT"

What number has 1 ten and 8 ones? = 18 (A) · What number has 5 tens and 0 ones? = 50 (D) · What number has 2 tens and 9 ones? = 29 (S) · What number has 4 tens and 5 ones? = 45 (I) · What number has 1 ten and 3 ones? = 13 (C) · What number has 5 tens and 1 one? = 51 (R) · What number has 8 tens and 8 ones? = 88 (P) · What number has 3 tens and 2 ones? = 32 (E) · What number has 7 tens and 7 ones? = 77 (O) · What number has 8 tens and 7 ones? = 87 (T) · What number has 6 tens and 3 ones? = 63 (H) · What number has 3 tens and 8 ones? = 38 (L) · What number has 8 tens and 0 ones? = 80 (W)

Clue 4 (Skip counting): "WE FOUND A SHARP GOLD SPIKE"

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, ___, 28, 30 = 26 (W) · Skip-count by 3s. Fill the blank: 3, 6, ___, 12, 15 = 9 (L) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, ___, 36, 39 = 33 (A) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, ___, 30, 32 = 28 (K) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, ___, 33, 36 = 30 (R) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, ___, 39, 42 = 36 (S) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, ___, 140, 150 = 130 (D) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, ___, 18, 20 = 16 (F) · Skip-count by 2s. Fill the blank: 2, 4, 6, ___, 10, 12 = 8 (E) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, ___, 24, 27 = 21 (O) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, ___, 100, 110 = 90 (P) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, ___, 120, 130 = 110 (H) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, ___, 60, 65 = 55 (I) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, ___, 14, 16 = 12 (G) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, ___, 150, 160 = 140 (U) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, ___, 30, 33 = 27 (N)

Clue 5 (Missing addends): surviving statement is box 4 → Otto

6 + ___ = 15 = 9 · 5 + ___ = 15 = 10 · 1 + ___ = 4 = 3 · 9 + ___ = 16 = 7 · 10 + ___ = 21 = 11 · 10 + ___ = 15 = 5 · 7 + ___ = 8 = 1 · 1 + ___ = 9 = 8 · 1 + ___ = 7 = 6 · 8 + ___ = 10 = 2 · 6 + ___ = 18 = 12