



The Great Robo-Scrap Caper

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

Detective: _____ Date: _____

Oh no! A rogue glitch-bot broke into the factory and took the golden computer chip! We need to find the right bot and fix its programming.

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	MAIN TOOL	SPECIAL UPGRADE	ANTENNA SIGNAL	HEAD WIRE STYLE	SYSTEM GLITCH
Mae	Driller Nose	Solar Panels	Right light blinks	Blue yarn	Strong magnets
Clank	Laser Eyes	Oil Slicker	Left light blinks	Copper wires	Soapy water
Rusty	Laser Eyes	Net Launcher	Left light blinks	Spiky bolts	Soapy water
Edison	Rocket Boots	Oil Slicker	Left light blinks	Spiky bolts	Banana peels
Isaac	Rocket Boots	Solar Panels	Right light blinks	Blue yarn	Banana peels
Dot	Magnet Hands	Bubble Blaster	Right light blinks	Spiky bolts	Strong magnets
Hal	Magnet Hands	Speaker Chest	Left light blinks	Blue yarn	Soapy water
Grace	Magnet Hands	Solar Panels	Left light blinks	Blue yarn	Banana peels
Curie	Driller Nose	Net Launcher	Right light blinks	Blue yarn	Soapy water
Otto	Laser Eyes	Net Launcher	Left light blinks	Copper wires	Strong magnets
Sparky	Spring Legs	Oil Slicker	Right light blinks	Blue yarn	Banana peels
Bolt	Rocket Boots	Oil Slicker	Right light blinks	Blue yarn	Strong magnets
Tesla	Driller Nose	Net Launcher	Left light blinks	Spiky bolts	Soapy water
Widget	Magnet Hands	Bubble Blaster	Right light blinks	Blue yarn	Banana peels
Gizmo	Laser Eyes	Speaker Chest	Right light blinks	Copper wires	Banana peels
Sprocket	Magnet Hands	Net Launcher	Right light blinks	Blue yarn	Banana peels
Ada	Rocket Boots	Net Launcher	Right light blinks	Blue yarn	Banana peels
Alan	Driller Nose	Solar Panels	Left light blinks	Spiky bolts	Banana peels
Albert	Spring Legs	Oil Slicker	Right light blinks	Blue yarn	Soapy water
Watson	Rocket Boots	Oil Slicker	Right light blinks	Copper wires	Strong magnets
Lovelace	Magnet Hands	Solar Panels	Left light blinks	Spiky bolts	Strong magnets

CLUE 1 Place value

We look at the robot screen. It shows tens and ones to find a clue.

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

T								T										T
61	60	18	29	68	36	29	51	61	36	51	18	23	57	51	61			
				T														
29	83	68	23	61	29	81	29	29	83	18	23							

What number has 6 tens and 1 one?

→

T

What number has 1 ten and 8 ones?

→

E

What number has 8 tens and 1 one?

→

U

What number has 8 tens and 3 ones?

→

L

What number has 6 tens and 8 ones?

→

A

What number has 6 tens and 0 ones?

→

H

What number has 2 tens and 3 ones?

→

S

What number has 5 tens and 1 one?

→

O

What number has 2 tens and 9 ones?

→

B

What number has 3 tens and 6 ones?

→

D

What number has 5 tens and 7 ones?

→

N

Scratch space:

CLUE 2

Addition

We find two piles of loose bolts. Let us add them up.

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

R																			
4	3	20	17	9	2	3	20	17	9	5	2	13	8	17	12	11	3	18	

					R	
9	17	12	11	13	4	19

$1 + 3 = \square \rightarrow \boxed{\text{R}}$

$4 + 4 = \square \rightarrow \boxed{\text{S}}$

$8 + 9 = \square \rightarrow \boxed{\text{H}}$

$1 + 2 = \square \rightarrow \boxed{\text{I}}$

$1 + 1 = \square \rightarrow \boxed{\text{L}}$

$9 + 11 = \square \rightarrow \boxed{\text{G}}$

$6 + 12 = \square \rightarrow \boxed{\text{N}}$

$7 + 6 = \square \rightarrow \boxed{\text{A}}$

$5 + 4 = \square \rightarrow \boxed{\text{T}}$

$7 + 4 = \square \rightarrow \boxed{\text{D}}$

$14 + 5 = \square \rightarrow \boxed{\text{K}}$

$9 + 3 = \square \rightarrow \boxed{\text{E}}$

$1 + 4 = \square \rightarrow \boxed{\text{F}}$

Scratch space:

CLUE 3

Subtraction

The runaway robot leaks oil. Its oil tank is getting lower.

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

I				I											
16	12	9	19	16	14	2	9	10	18	1	2	19	19	10	8

7	2	2	19	9

$19 - 3 = \square \rightarrow \boxed{\text{I}}$

$17 - 3 = \square \rightarrow \boxed{\text{D}}$

$5 - 4 = \square \rightarrow \boxed{\text{Y}}$

$14 - 7 = \square \rightarrow \boxed{\text{P}}$

$20 - 1 = \square \rightarrow \boxed{\text{L}}$

$5 - 3 = \square \rightarrow \boxed{\text{E}}$

$11 - 2 = \square \rightarrow \boxed{\text{S}}$

$19 - 1 = \square \rightarrow \boxed{\text{N}}$

$15 - 5 = \square \rightarrow \boxed{\text{O}}$

$15 - 7 = \square \rightarrow \boxed{\text{W}}$

$15 - 3 = \square \rightarrow \boxed{\text{T}}$

Scratch space:

CLUE 4 Skip counting

We follow the track of oil drops. They are spaced by fives.

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

A						A						A			A		
35	50	140	21	16	10	35	110	33	30	60	110	16	35	26	22	35	18

26	110	9	24	24	16	26

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

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

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

Skip-count by 10s. Fill the blank: 10, 20, __, 40, 50 → **T**

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

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

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

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, __, 70, 80 → **H**

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

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

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, __, 24, 27 → **U**

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 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, __, 120, 130 → **R**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, __, 55, 60

→

B

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, __, 26, 28

→

P

Scratch space:

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

We need six gears to lock the door. We only have some.

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:

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

$4 + \underline{\quad} = 8$

$10 + \underline{\quad} = 20$

$1 + \underline{\quad} = 8$

$7 + \underline{\quad} = 18$

$1 + \underline{\quad} = 3$

$4 + \underline{\quad} = 7$

$4 + \underline{\quad} = 5$

$3 + \underline{\quad} = 11$

$6 + \underline{\quad} = 11$

$10 + \underline{\quad} = 22$

Step 2 - cross out the sentence with each answer:

1. The villain zaps the computer screen, then shoots a stream of soapy bubbles.
2. The villain drills through the steel floor, then sprays a pool of slippery oil.
3. The villain drills through the steel floor, then shines its bright solar panels.
4. The villain bounces through the open window, then sprays a pool of slippery oil.
5. The villain grabs the golden power core, then sprays a pool of slippery oil.
6. The villain grabs the golden power core, then throws a big blue net.
7. The villain grabs the golden power core, then blasts loud funny music.
8. The villain grabs the golden power core, then shoots a stream of soapy bubbles.
9. The villain zooms over the high scrap wall, then throws a big blue net.
10. The villain zooms over the high scrap wall, then shines its bright solar panels.
11. The villain bounces through the open window, then throws a big blue net.
12. The villain zooms over the high scrap wall, then sprays a pool of slippery oil.

Answer Key

The Great Robo-Scrap Caper

Culprit: Sprocket

Magnet Hands · Net Launcher · Right light blinks · Blue yarn · Banana peels

Trail: Start 21 → Clue 1 19 → Clue 2 10 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE BAD BOT DOES NOT BLAST BUBBLES"

What number has 6 tens and 1 one? = 61 (T) · What number has 1 ten and 8 ones? = 18 (E) · What number has 8 tens and 1 one? = 81 (U) · What number has 8 tens and 3 ones? = 83 (L) · What number has 6 tens and 8 ones? = 68 (A) · What number has 6 tens and 0 ones? = 60 (H) · What number has 2 tens and 3 ones? = 23 (S) · What number has 5 tens and 1 one? = 51 (O) · What number has 2 tens and 9 ones? = 29 (B) · What number has 3 tens and 6 ones? = 36 (D) · What number has 5 tens and 7 ones? = 57 (N)

Clue 2 (Addition): "RIGHT LIGHT FLASHED IN THE DARK"

$1 + 3 = 4$ (R) · $4 + 4 = 8$ (S) · $8 + 9 = 17$ (H) · $1 + 2 = 3$ (I) · $1 + 1 = 2$ (L) · $9 + 11 = 20$ (G) · $6 + 12 = 18$ (N) · $7 + 6 = 13$ (A) · $5 + 4 = 9$ (T) · $7 + 4 = 11$ (D) · $14 + 5 = 19$ (K) · $9 + 3 = 12$ (E) · $1 + 4 = 5$ (F)

Clue 3 (Subtraction): "IT SLIDES ON YELLOW PEELS"

$19 - 3 = 16$ (I) · $17 - 3 = 14$ (D) · $5 - 4 = 1$ (Y) · $14 - 7 = 7$ (P) · $20 - 1 = 19$ (L) · $5 - 3 = 2$ (E) · $11 - 2 = 9$ (S) · $19 - 1 = 18$ (N) · $15 - 5 = 10$ (O) · $15 - 7 = 8$ (W) · $15 - 3 = 12$ (T)

Clue 4 (Skip counting): "A BLUE YARN THREAD WAS DROPPED"

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

Clue 5 (Missing addends): surviving statement is box 6 → Sprocket

$2 + \underline{\quad} = 11 = 9$ · $4 + \underline{\quad} = 8 = 4$ · $10 + \underline{\quad} = 20 = 10$ · $1 + \underline{\quad} = 8 = 7$ · $7 + \underline{\quad} = 18 = 11$ · $1 + \underline{\quad} = 3 = 2$ · $4 + \underline{\quad} = 7 = 3$ · $4 + \underline{\quad} = 5 = 1$ · $3 + \underline{\quad} = 11 = 8$ · $6 + \underline{\quad} = 11 = 5$ · $10 + \underline{\quad} = 22 = 12$