The Great Robot Workshop Mystery

Grade 1 math · Addition, Fractions of a number, Rounding, Subtraction · Reading level grades 1-2

Detective: _____ **Date:** _____

Oh no! Someone swiped the Golden Sprocket from Gear City Workshop! Chief Engineer Beep needs your help to find the sneaky robot culprit. Solve the clues and catch the 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

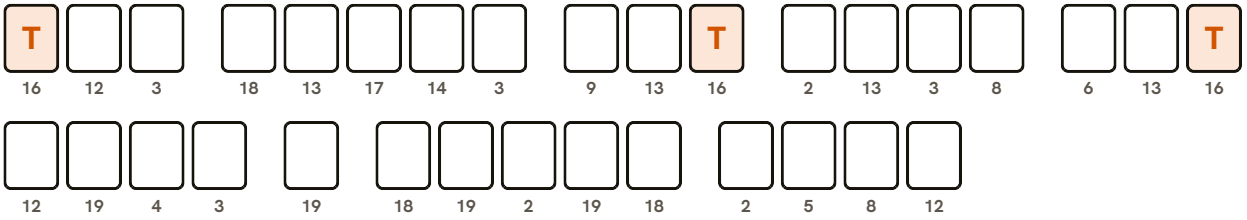
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	CORE TOOL	GADGET	STATUS LIGHT	HEAD WIRES	SHUTDOWN ITEM
Tinker	Rocket Boots	Oil Cannon	Blinking Green	Silver Cables	Magnet Key
Socket	Magnet Grip	Turbo Fan	Blinking Yellow	Silver Cables	Water Spray
Radon	Sonic Pulse	Zap Ray	Blinking Yellow	Copper Wires	Water Spray
Chip	Magnet Grip	Zap Ray	Blinking Yellow	Copper Wires	Magnet Key
Wrench	Sonic Pulse	Shield Field	Blinking Yellow	Copper Wires	Magnet Key
Data	Sonic Pulse	Zap Ray	Blinking Green	Gold Antennae	Lemon Juice
Circuit	Rocket Boots	Zap Ray	Blinking Yellow	Silver Cables	Lemon Juice
Bolt	Laser Beam	Oil Cannon	Blinking Yellow	Copper Wires	Water Spray
Volt	Rocket Boots	Shield Field	Blinking Green	Copper Wires	Magnet Key
Tracker	Sonic Pulse	Radar Dish	Blinking Yellow	Copper Wires	Water Spray
Micro	Sonic Pulse	Turbo Fan	Blinking Green	Silver Cables	Water Spray
Gearhead	Laser Beam	Radar Dish	Blinking Yellow	Gold Antennae	Lemon Juice
Beep	Magnet Grip	Oil Cannon	Blinking Yellow	Silver Cables	Lemon Juice
Byte	Magnet Grip	Shield Field	Blinking Green	Silver Cables	Lemon Juice
Bop	Laser Beam	Zap Ray	Blinking Yellow	Copper Wires	Water Spray
Amp	Gear Spin	Oil Cannon	Blinking Yellow	Copper Wires	Water Spray
Sparky	Laser Beam	Shield Field	Blinking Yellow	Gold Antennae	Magnet Key
Gizmo	Magnet Grip	Oil Cannon	Blinking Green	Copper Wires	Water Spray
Clinker	Gear Spin	Radar Dish	Blinking Green	Gold Antennae	Water Spray
Sprocket	Laser Beam	Oil Cannon	Blinking Green	Copper Wires	Magnet Key
Widget	Rocket Boots	Turbo Fan	Blinking Yellow	Copper Wires	Magnet Key

CLUE 1 Addition

Sparky counts up all the extra gears in the repair bay.

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



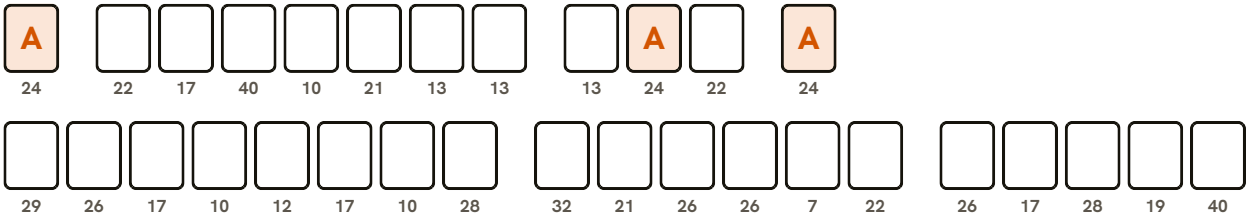
9 + 7 = ☐ → T	8 + 9 = ☐ → G	6 + 2 = ☐ → S	7 + 7 = ☐ → U
10 + 9 = ☐ → A	3 + 6 = ☐ → B	1 + 3 = ☐ → V	2 + 1 = ☐ → E
8 + 4 = ☐ → H	5 + 1 = ☐ → N	1 + 1 = ☐ → D	4 + 9 = ☐ → O
2 + 3 = ☐ → I	13 + 5 = ☐ → R		

Scratch space:

CLUE 2 Fractions of a number

Sparky splits a batch of shiny bolts to find hidden clues.

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



5/10 of 48 = ☐ → A

1/3 of 21 = ☐ → O

1/5 of 85 = ☐ → I

4/10 of 55 = ☐ → W

2/4 of 52 = ☐ → L

4/8 of 26 = ☐ → S

1/3 of 36 = ☐ → K

2/8 of 112 = ☐ → G

5/10 of 58 = ☐ → B

2/8 of 76 = ☐ → H

1/2 of 42 = ☐ → E

2/3 of 15 = ☐ → N

2/6 of 96 = ☐ → Y

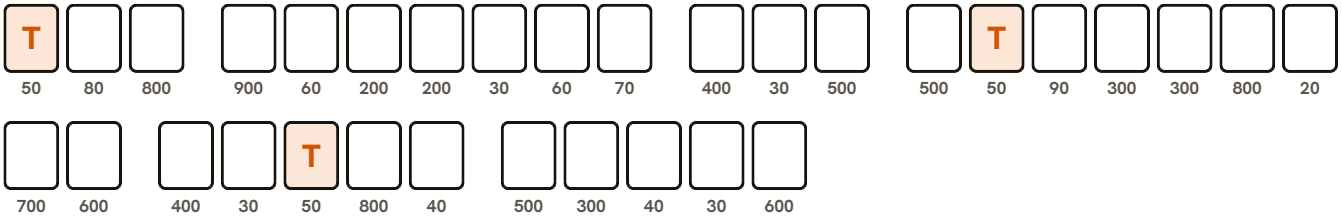
2/5 of 100 = ☐ → T

Scratch space:

CLUE 3 Rounding

The robot scanner screen rounds numbers to the nearest ten.

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



Round 47 to the nearest ten ☐ → T

Round 66 to the nearest ten ☐ → N

Round 577 to the nearest hundred ☐ → Y

Round 21 to the nearest ten ☐ → D

Round 163 to the nearest hundred ☐ → L

Round 873 to the nearest hundred ☐ → V

Round 93 to the nearest ten ☐ → O

Round 80 to the nearest ten ☐ → H

Round 44 to the nearest ten ☐ → R

Round 316 to the nearest hundred ☐ → P

Round 724 to the nearest hundred ☐ → B

Round 34 to the nearest ten ☐ → A

Round 385 to the nearest hundred ☐ → W

Round 844 to the nearest hundred ☐ → E

Round 64 to the nearest ten ☐ → I

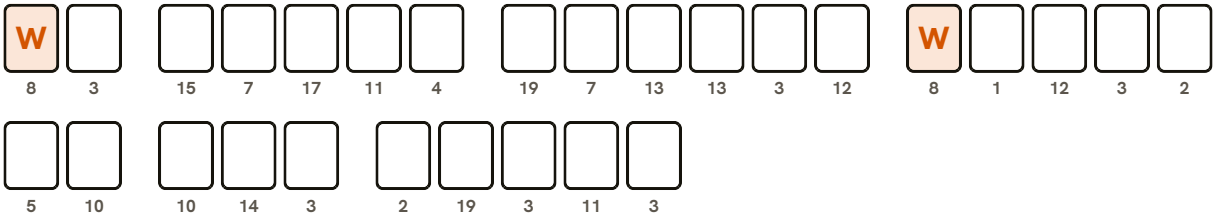
Round 490 to the nearest hundred ☐ → S

Scratch space:

CLUE 4 Subtraction

Sparky takes away drained batteries to check the rest.

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



10 - 2 = ☐ → W	20 - 6 = ☐ → H	12 - 1 = ☐ → N	9 - 6 = ☐ → E
14 - 9 = ☐ → A	16 - 6 = ☐ → T	19 - 6 = ☐ → P	
20 - 1 = ☐ → C	17 - 5 = ☐ → R	16 - 1 = ☐ → F	3 - 2 = ☐ → I
8 - 6 = ☐ → S	19 - 2 = ☐ → U	10 - 6 = ☐ → D	16 - 9 = ☐ → O

Scratch space:

CLUE 5

Fractions of a number - the last clue

Sparky shares power cells into equal stacks to solve the puzzle.

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:

2/3 of 3 = ☐	3/5 of 15 = ☐	1/2 of 2 = ☐	3/10 of 10 = ☐
1/8 of 40 = ☐	1/10 of 110 = ☐	1/8 of 80 = ☐	2/4 of 16 = ☐
3/6 of 24 = ☐	1/8 of 48 = ☐	4/6 of 6 = ☐	

Step 2 - cross out the sentence with each answer:

1. The villain spun round with gear spin, then shot an oil cannon.
2. The villain blasted a laser beam, then fired a zap ray.
3. The villain grabbed metal with magnet grip, then shot an oil cannon.
4. The villain flew up with rocket boots, then fired a zap ray.
5. The villain grabbed metal with magnet grip, then blew a turbo fan.
6. The villain spun round with gear spin, then fired a zap ray.
7. The villain blasted a laser beam, then shot an oil cannon.
8. The villain grabbed metal with magnet grip, then fired a zap ray.
9. The villain blared out a sonic pulse, then fired a zap ray.
10. The villain spun round with gear spin, then turned on a radar dish.
11. The villain grabbed metal with magnet grip, then raised a shield field.
12. The villain blared out a sonic pulse, then shot an oil cannon.

TEACHER / PARENT

Answer Key

The Great Robot Workshop Mystery

Culprit: Bolt

Laser Beam · Oil Cannon · Blinking Yellow · Copper Wires · Water Spray

Trail: Start 21 → Clue 1 18 → Clue 2 11 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE ROGUE BOT DOES NOT HAVE A RADAR DISH"

9 + 7 = 16 (T) · 8 + 9 = 17 (G) · 6 + 2 = 8 (S) · 7 + 7 = 14 (U) · 10 + 9 = 19 (A) · 3 + 6 = 9 (B) · 1 + 3 = 4 (V) · 2 + 1 = 3 (E) · 8 + 4 = 12 (H) · 5 + 1 = 6 (N) · 1 + 1 = 2 (D) · 4 + 9 = 13 (O) · 2 + 3 = 5 (I) · 13 + 5 = 18 (R)

Clue 2 (Fractions of a number): "A WITNESS SAW A BLINKING YELLOW LIGHT"

5/10 of 48 = 24 (A) · 1/3 of 21 = 7 (O) · 1/5 of 85 = 17 (I) · 4/10 of 55 = 22 (W) · 2/4 of 52 = 26 (L) · 4/8 of 26 = 13 (S) · 1/3 of 36 = 12 (K) · 2/8 of 112 = 28 (G) · 5/10 of 58 = 29 (B) · 2/8 of 76 = 19 (H) · 1/2 of 42 = 21 (E) · 2/3 of 15 = 10 (N) · 2/6 of 96 = 32 (Y) · 2/5 of 100 = 40 (T)

Clue 3 (Rounding): "THE VILLAIN WAS STOPPED BY WATER SPRAY"

Round 47 to the nearest ten = 50 (T) · Round 66 to the nearest ten = 70 (N) · Round 577 to the nearest hundred = 600 (Y) · Round 21 to the nearest ten = 20 (D) · Round 163 to the nearest hundred = 200 (L) · Round 873 to the nearest hundred = 900 (V) · Round 93 to the nearest ten = 90 (O) · Round 80 to the nearest ten = 80 (H) · Round 44 to the nearest ten = 40 (R) · Round 316 to the nearest hundred = 300 (P) · Round 724 to the nearest hundred = 700 (B) · Round 34 to the nearest ten = 30 (A) · Round 385 to the nearest hundred = 400 (W) · Round 844 to the nearest hundred = 800 (E) · Round 64 to the nearest ten = 60 (I) · Round 490 to the nearest hundred = 500 (S)

Clue 4 (Subtraction): "WE FOUND COPPER WIRES AT THE SCENE"

10 - 2 = 8 (W) · 20 - 6 = 14 (H) · 12 - 1 = 11 (N) · 9 - 6 = 3 (E) · 14 - 9 = 5 (A) · 16 - 6 = 10 (T) · 19 - 6 = 13 (P) · 20 - 1 = 19 (C) · 17 - 5 = 12 (R) · 16 - 1 = 15 (F) · 3 - 2 = 1 (I) · 8 - 6 = 2 (S) · 19 - 2 = 17 (U) · 10 - 6 = 4 (D) · 16 - 9 = 7 (O)

Clue 5 (Fractions of a number): surviving statement is box 7 → Bolt

2/3 of 3 = 2 · 3/5 of 15 = 9 · 1/2 of 2 = 1 · 3/10 of 10 = 3 · 1/8 of 40 = 5 · 1/10 of 110 = 11 · 1/8 of 80 = 10 · 2/4 of 16 = 8 · 3/6 of 24 = 12 · 1/8 of 48 = 6 · 4/6 of 6 = 4