



The Cosmic Robo-Dino Heist

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

Detective: _____ Date: _____

A rogue robo-captain has raided the starship of Chief Astro-Engineer Barnaby! They swiped the Golden Plasma Gear and escaped into the dark asteroid field. We must study the cosmic clues left behind to catch the correct metal dino-pirate!

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 robo-captain is _____

Possible suspects

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

NAME	DINO-FRAME CLASS	COSMIC TOOL	SENSOR BLINK	CABLE WIG	SYSTEM VULNERABILITY
Screaming Stego	T-Rex Chassis	Solar Cutlass	Right eye sensor blinks	Shiny copper wires	Giant magnets
Pegleg Rex	Stegosaurus Spikes	Laser Hook	Left eye sensor blinks	Shiny copper wires	Water splashes
Cyber Caesar	Triceratops Armor	Cyber Eye Patch	Right eye sensor blinks	Shiny copper wires	Bright solar flashes
Tricera Tech	Stegosaurus Spikes	Gravity Anchor	Left eye sensor blinks	Shiny copper wires	Bright solar flashes
Byte Sized Bones	Pterodactyl Wings	Plasma Cannon	Right eye sensor blinks	Neon-blue oil hoses	Water splashes
Metal Horns	Stegosaurus Spikes	Plasma Cannon	Left eye sensor blinks	Shiny copper wires	Bright solar flashes
Starboard Spike	Triceratops Armor	Solar Cutlass	Left eye sensor blinks	Shiny copper wires	Water splashes
Captain CyberJaw	T-Rex Chassis	Solar Cutlass	Right eye sensor blinks	Neon-blue oil hoses	Bright solar flashes
Raptor Rust	Raptor Frame	Plasma Cannon	Right eye sensor blinks	Shiny copper wires	Bright solar flashes
Robo Redbeard	Raptor Frame	Solar Cutlass	Left eye sensor blinks	Neon-blue oil hoses	Bright solar flashes
Silver Talon	Pterodactyl Wings	Plasma Cannon	Left eye sensor blinks	Neon-blue oil hoses	Bright solar flashes
Gear Grinder	Triceratops Armor	Plasma Cannon	Right eye sensor blinks	Rust-red power cables	Giant magnets
Space Saurian	T-Rex Chassis	Laser Hook	Left eye sensor blinks	Rust-red power cables	Water splashes
Iron Wing	Stegosaurus Spikes	Laser Hook	Right eye sensor blinks	Shiny copper wires	Water splashes
Laser Tooth	Raptor Frame	Laser Hook	Left eye sensor blinks	Shiny copper wires	Bright solar flashes
Mecha Meg	Stegosaurus Spikes	Solar Cutlass	Left eye sensor blinks	Rust-red power cables	Water splashes
Plank Walker	Stegosaurus Spikes	Cyber Eye Patch	Left eye sensor blinks	Shiny copper wires	Bright solar flashes
Salty Sprocket	Raptor Frame	Solar Cutlass	Right eye sensor blinks	Neon-blue oil hoses	Water splashes
Rusty Raptor	Pterodactyl Wings	Laser Hook	Right eye sensor blinks	Rust-red power cables	Water splashes
Volt Raptor	Triceratops Armor	Plasma Cannon	Left eye sensor blinks	Shiny copper wires	Bright solar flashes
Bolts the Kid	Triceratops Armor	Plasma Cannon	Left eye sensor blinks	Rust-red power cables	Water splashes

CLUE 1

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

Diagram showing 18 empty boxes arranged in two rows of nine. The first row has the first and eighth boxes highlighted in orange and labeled 'T'. The second row has the seventh box highlighted in orange and labeled 'T'. Below each box is a numerical value.

T							T										
170	370	900	430	3000	500	20	170	900	130	300	900	2300	230	300	170	110	2300
							T										
20	30	500	20	90	3000	170	50	20	230	5000	370	300	500				

Round 171 to the nearest ten $\rightarrow$ **T**

Round 307 to the nearest hundred $\rightarrow$ **0**

Round 371 to the nearest ten $\rightarrow$ **H**

Round 94 to the nearest ten $\rightarrow$ **V**

Round 2,317 to the nearest hundred → **S**

Round 542 to the nearest hundred $\rightarrow$ **R**

Round 2,845 to the nearest thousand $\rightarrow$

Round 4,814 to the nearest thousand $\rightarrow$ **C**

Round 232 to the nearest ten $\rightarrow$ **N**

Round 48 to the nearest ten $\rightarrow$ **Y**

Round 134 to the nearest ten $\rightarrow$ **D**

Round 32 to the nearest ten → **G**

Round 112 to the nearest ten $\rightarrow$ **U**

Round 890 to the nearest hundred → **E**

Round 430 to the nearest ten $\rightarrow$ **P**

Round 16 to the nearest ten → **A**

Scratch space:

CLUE 2

Word problems

Our long-range radar only shows approximate numbers. Round these coordinates to the nearest ten to pinpoint the thief's direction.

Solve each problem, then write its letter in the boxes to fill in the missing word.

A witness saw the villain was

L												O	R	B	L	I		K	
8	50	45	43	50	80	50	54	50	49	54					8	49		54	

Quartermaster Clank lined up 4 rows of 2 laser cutlasses. How many laser cutlasses in all?

Answer: → **L**

Quartermaster Clank lined up 9 rows of 6 space doubloons. How many space doubloons in all?

Answer: → **S**

Quartermaster Clank lined up 10 rows of 8 dino batteries. How many dino batteries in all?

Answer: → **Y**

Quartermaster Clank lined up 5 rows of 10 space doubloons. How many space doubloons in all?

Answer: → **E**

Quartermaster Clank lined up 9 rows of 5 star maps. How many star maps in all?

Answer: → **F**

Quartermaster Clank found 19 space doubloons yesterday and 30 more today. How many space doubloons in all?

Answer: → **N**

There were 68 space doubloons. 25 were used up. How many space doubloons are left?

Answer: → **T**

Scratch space:

CLUE 3 Addition

The scrappers need to combine their piles of spare battery packs. Add up these energy reserves to unlock the pirate ship's cargo manifest.

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

B																
8484	6603	9623	4918	2465	5908	7543	3704	2777	2091	6603	6195	2777	2091	7543	2465	9393

B										
8484	2777	9623	7739	2185	9393	2185	5908	2465	9393	7610

$5170 + 3314 = \square \rightarrow \text{B}$	$4118 + 5505 = \square \rightarrow \text{I}$	$2623 + 5116 = \square \rightarrow \text{N}$
$5319 + 2291 = \square \rightarrow \text{M}$	$2309 + 5234 = \square \rightarrow \text{S}$	$2029 + 1675 = \square \rightarrow \text{O}$
$2735 + 3868 = \square \rightarrow \text{R}$	$2760 + 3435 = \square \rightarrow \text{F}$	$5757 + 3636 = \square \rightarrow \text{E}$
$1937 + 840 = \square \rightarrow \text{L}$	$730 + 1361 = \square \rightarrow \text{A}$	$1222 + 963 = \square \rightarrow \text{D}$
$3404 + 2504 = \square \rightarrow \text{T}$	$2124 + 2794 = \square \rightarrow \text{G}$	$1614 + 851 = \square \rightarrow \text{H}$

Scratch space:

CLUE 4

Some oil canisters were stolen from our supply locker. Subtract the remaining cans from the total to find out what is missing.

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

$$10170 - 4954 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$7394 - 1082 = \boxed{} \rightarrow \boxed{\text{L}}$$

$$11774 - 4712 = \boxed{} \rightarrow \boxed{\text{N}}$$

$$6025 - 2027 = \boxed{} \rightarrow \mathbf{E}$$

$$7189 - 505 = \boxed{} \rightarrow \boxed{\text{H}}$$

$12393 - 4469 = \boxed{} \rightarrow \boxed{}$

$$4418 - 2761 = \boxed{} \rightarrow \mathbf{D}$$

$$6490 - 2921 = \boxed{} \rightarrow \boxed{0}$$

$6409 - 2229 = \boxed{} \rightarrow \mathbf{P}$

$$6103 - 3261 = \boxed{} \rightarrow \boxed{\text{C}}$$

$$3630 - 1791 = \boxed{} \rightarrow \boxed{\text{W}}$$

$11284 - 2556 = \boxed{} \rightarrow \boxed{\text{B}}$

$6995 - 4748 = \boxed{} \rightarrow \boxed{\text{F}}$

$$6953 - 3868 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$5642 - 1874 = \boxed{} \rightarrow \boxed{\text{R}}$$

$10933 - 4363 = \boxed{} \rightarrow \boxed{\text{Y}}$

Scratch space:

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

We recovered a crate of energy cells that must be shared equally among the crew. Divide the cells to reveal the final secret.

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:

$4 \div 4 = \boxed{}$

$30 \div 6 = \boxed{}$

$132 \div 11 = \boxed{}$

$77 \div 7 = \boxed{}$

$33 \div 11 = \boxed{}$

$27 \div 3 = \boxed{}$

$28 \div 4 = \boxed{}$

$24 \div 6 = \boxed{}$

$100 \div 10 = \boxed{}$

$20 \div 10 = \boxed{}$

$72 \div 9 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain slinks through the ventilation shafts, then swipes the golden plasma gear.
2. The villain stomps onboard with heavy robotic claws, then grabs the starship energy cores.
3. The villain slinks through the ventilation shafts, then grabs the starship energy cores.
4. The villain smashes through the blast doors, then swipes the golden plasma gear.
5. The villain charges the security forcefield, then pockets the cosmic compass.
6. The villain smashes through the blast doors, then steals the secret galaxy maps.
7. The villain charges the security forcefield, then grabs the starship energy cores.
8. The villain slinks through the ventilation shafts, then pockets the cosmic compass.
9. The villain sails silently through the cargo bay window, then grabs the starship energy cores.
10. The villain smashes through the blast doors, then grabs the starship energy cores.
11. The villain slinks through the ventilation shafts, then steals the secret galaxy maps.
12. The villain charges the security forcefield, then steals the secret galaxy maps.

Answer Key

The Cosmic Robo-Dino Heist

Culprit: Volt Raptor

Triceratops Armor · Plasma Cannon · Left eye sensor blinks · Shiny copper wires · Bright solar flashes

Trail: Start 21 → Clue 1 20 → Clue 2 11 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE PIRATE DOES NOT USE A GRAVITY ANCHOR"

Round 171 to the nearest ten = 170 (T) · Round 307 to the nearest hundred = 300 (O) · Round 371 to the nearest ten = 370 (H) · Round 94 to the nearest ten = 90 (V) · Round 2,317 to the nearest hundred = 2300 (S) · Round 542 to the nearest hundred = 500 (R) · Round 2,845 to the nearest thousand = 3000 (I) · Round 4,814 to the nearest thousand = 5000 (C) · Round 232 to the nearest ten = 230 (N) · Round 48 to the nearest ten = 50 (Y) · Round 134 to the nearest ten = 130 (D) · Round 32 to the nearest ten = 30 (G) · Round 112 to the nearest ten = 110 (U) · Round 890 to the nearest hundred = 900 (E) · Round 430 to the nearest ten = 430 (P) · Round 16 to the nearest ten = 20 (A)

Clue 2 (Word problems): "LEFT EYE SENSOR BLINKS"

Quartermaster Clank lined up 4 rows of 2 laser cutlasses. How many laser cutlasses in all? = 8 (L) · Quartermaster Clank lined up 9 rows of 6 space doubloons. How many space doubloons in all? = 54 (S) · Quartermaster Clank lined up 10 rows of 8 dino batteries. How many dino batteries in all? = 80 (Y) · Quartermaster Clank lined up 5 rows of 10 space doubloons. How many space doubloons in all? = 50 (E) · Quartermaster Clank lined up 9 rows of 5 star maps. How many star maps in all? = 45 (F) · Quartermaster Clank found 19 space doubloons yesterday and 30 more today. How many space doubloons in all? = 49 (N) · There were 68 space doubloons. 25 were used up. How many space doubloons are left? = 43 (T)

Clue 3 (Addition): "BRIGHT SOLAR FLASHES BLINDED THEM"

$5170 + 3314 = 8484$ (B) · $4118 + 5505 = 9623$ (I) · $2623 + 5116 = 7739$ (N) · $5319 + 2291 = 7610$ (M) · $2309 + 5234 = 7543$ (S) · $2029 + 1675 = 3704$ (O) · $2735 + 3868 = 6603$ (R) · $2760 + 3435 = 6195$ (F) · $5757 + 3636 = 9393$ (E) · $1937 + 840 = 2777$ (L) · $730 + 1361 = 2091$ (A) · $1222 + 963 = 2185$ (D) · $3404 + 2504 = 5908$ (T) · $2124 + 2794 = 4918$ (G) · $1614 + 851 = 2465$ (H)

Clue 4 (Subtraction): "SHINY COPPER WIRES WERE LEFT BEHIND"

$10170 - 4954 = 5216$ (S) · $7394 - 1082 = 6312$ (L) · $11774 - 4712 = 7062$ (N) · $6025 - 2027 = 3998$ (E) · $7189 - 505 = 6684$ (H) · $12393 - 4469 = 7924$ (I) · $4418 - 2761 = 1657$ (D) · $6490 - 2921 = 3569$ (O) · $6409 - 2229 = 4180$ (P) · $6103 - 3261 = 2842$ (C) · $3630 - 1791 = 1839$ (W) · $11284 - 2556 = 8728$ (B) · $6995 - 4748 = 2247$ (F) · $6953 - 3868 = 3085$ (T) · $5642 - 1874 = 3768$ (R) · $10933 - 4363 = 6570$ (Y)

Clue 5 (Division facts (1-12)): surviving statement is box 6 → Volt Raptor

$4 \div 4 = 1$ · $30 \div 6 = 5$ · $132 \div 11 = 12$ · $77 \div 7 = 11$ · $33 \div 11 = 3$ · $27 \div 3 = 9$ · $28 \div 4 = 7$ · $24 \div 6 = 4$ · $100 \div 10 = 10$ · $20 \div 10 = 2$ · $72 \div 9 = 8$