



The Galactic Amber Heist

Grade 3 math · Addition, Subtraction, Rounding, Bar models, Missing addends · Reading level grades 3-4

Detective: _____ **Date:** _____

An alarm blares across the Dino-Dome Space Station! The priceless Golden Fossil, preserved in cosmic amber, has been snatched from the central bio-deck. A sneaky Cyber-Dino Thief bypassed the forcefields. Now, we must track down the culprit before they escape into the deep dark nebula!

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 Cyber-Dino Thief is _____

Possible suspects

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

NAME	CYBER UPGRADE	SPACE GEAR	DOMINANT CLAW	SPACESUIT HELMET COLOR	SYSTEM VULNERABILITY
Penny Ptera	Gravity Stomp	Rocket Boots	Left clawed	Stardust Pink	Magnetic Nets
Orbit Olivia	Gravity Stomp	Asteroid Drill	Left clawed	Neon Orange	Bright Flares
Veloci Victor	Gravity Stomp	Nebula Goggles	Left clawed	Neon Orange	Bright Flares
Bronto Buzz	Plasma Roar	Nebula Goggles	Left clawed	Stardust Pink	Magnetic Nets
Nova Tricera	Jetpack Blast	Asteroid Drill	Left clawed	Stardust Pink	Water Sprays
Zelda Zero	Jetpack Blast	Nebula Goggles	Left clawed	Stardust Pink	Magnetic Nets
Billy Blast	Plasma Roar	Nebula Goggles	Right clawed	Stardust Pink	Magnetic Nets
Cosmo Cleo	Jetpack Blast	Rocket Boots	Right clawed	Laser Blue	Water Sprays
Orion Raptor	Gravity Stomp	Rocket Boots	Right clawed	Stardust Pink	Magnetic Nets
Spike Nebula	Gravity Stomp	Rocket Boots	Left clawed	Neon Orange	Magnetic Nets
Rex Rocket	Jetpack Blast	Solar Claws	Left clawed	Stardust Pink	Magnetic Nets
Rex Orbit	Force Field	Asteroid Drill	Left clawed	Stardust Pink	Magnetic Nets
Raptor Ryan	Plasma Roar	Nebula Goggles	Left clawed	Neon Orange	Water Sprays
Comet Carrie	Force Field	Solar Claws	Left clawed	Stardust Pink	Magnetic Nets
Stego Stella	Plasma Roar	Comet Shield	Right clawed	Neon Orange	Bright Flares
Galaxy Greg	Gravity Stomp	Rocket Boots	Left clawed	Laser Blue	Bright Flares
Draco Dino	Plasma Roar	Asteroid Drill	Right clawed	Laser Blue	Magnetic Nets
Trixie Comet	Gravity Stomp	Comet Shield	Left clawed	Laser Blue	Magnetic Nets
Daisy Dino	Gravity Stomp	Comet Shield	Left clawed	Neon Orange	Bright Flares
Apollo Rex	Force Field	Rocket Boots	Right clawed	Neon Orange	Magnetic Nets
Saber Sam	Plasma Roar	Nebula Goggles	Right clawed	Neon Orange	Magnetic Nets

CLUE 1

Ranger Rex counts the empty space cabbage crates left behind. We need to add up the crates to find the first clue!

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

A 2x10 grid of boxes. The top row contains the following numbers from left to right: 501, 463, 910, 547, 612, 547, 225, 910, 215, 501, 771, 369, 910, 547, 242, 369, 501. The box containing the number 501 at the 10th position is highlighted in orange and contains the letter 'T'. The bottom row contains the following numbers from left to right: 849, 910, 668, 579, 242, 910, 798, 612, 587, 668, 537, 369, 537, 537, 587, 910, 547.

$196 + 305 = \boxed{} \rightarrow \boxed{\text{T}}$

$$216 + 321 = \boxed{} \rightarrow \boxed{\mathbf{G}}$$

$$334 + 576 = \boxed{} \rightarrow \boxed{\text{E}}$$

$114 + 255 = \boxed{} \rightarrow \boxed{0}$

$$149 + 314 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$280 + 299 = \boxed{} \rightarrow \boxed{\text{R}}$$

$$245 + 342 = \boxed{} \rightarrow \boxed{\text{L}}$$

$$398 + 214 = \boxed{} \rightarrow \boxed{\text{U}}$$

$$321 + 450 = \boxed{} \rightarrow \boxed{\text{D}}$$

$$236 + 311 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$126 + 99 = \boxed{} \rightarrow \boxed{\text{P}}$$

$$334 + 515 = \boxed{} \rightarrow \boxed{\text{W}}$$

$$432 + 236 = \boxed{} \rightarrow \boxed{\mathbf{A}}$$

$260 + 538 = \square \rightarrow \boxed{\mathbf{B}}$

$167 + 75 = \boxed{} \rightarrow \boxed{\text{N}}$

$$94 + 121 = \boxed{} \rightarrow \boxed{\text{C}}$$

Scratch space:

CLUE 2
Subtraction

The getaway ship drained fuel from our reserve tank. Subtract the lost gallons to unlock the sensor logs!

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

T																		
293	264	509	662	264	391	535	739	159	509	219	509	570	219	727	535	535	509	570

						T				
762	122	779	295	509	582	293	662	295	779	159

$623 - 330 = \square \rightarrow \text{**T**}$

$678 - 108 = \square \rightarrow \text{**D**}$

$444 - 322 = \square \rightarrow \text{**Y**}$

$1124 - 345 = \square \rightarrow \text{**A**}$

$961 - 199 = \square \rightarrow \text{**B**}$

$932 - 270 = \square \rightarrow \text{**C**}$

$676 - 94 = \square \rightarrow \text{**F**}$

$1038 - 299 = \square \rightarrow \text{**S**}$

$284 - 125 = \square \rightarrow \text{**W**}$

$375 - 156 = \square \rightarrow \text{**R**}$

$296 - 32 = \square \rightarrow \text{**H**}$

$757 - 222 = \square \rightarrow \text{**P**}$

$783 - 392 = \square \rightarrow \text{**I**}$

$997 - 270 = \square \rightarrow \text{**O**}$

$549 - 254 = \square \rightarrow \text{**L**}$

$692 - 183 = \square \rightarrow \text{**E**}$

Scratch space:

CLUE 3 Rounding

The radar scanner is damaged and only shows rounded numbers. Round the distance of the escaping pod to read the transmission!

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

T					T					T			T						
60	40	2000	80	2000	60	7000	3000	5000	2000	60	600	60	50	7000	20	20	2000	700	
T			T																
60	40	2000	60	40	200	2000	4000												

Round 59 to the nearest ten → **T**

Round 21 to the nearest ten → **P**

Round 6,558 to the nearest thousand → **A**

Round 206 to the nearest hundred → **I**

Round 734 to the nearest hundred → **D**

Round 553 to the nearest hundred → **S**

Round 4,835 to the nearest thousand → **N**

Round 2,370 to the nearest thousand → **E**

Round 4,221 to the nearest thousand → **F**

Round 2,732 to the nearest thousand → **L**

Round 48 to the nearest ten → **R**

Round 41 to the nearest ten → **H**

Round 79 to the nearest ten → **M**

Scratch space:

CLUE 4

Bar model word problems

Compare the size of the footprints in the cargo bays using this bar model to see where the suspect ran!

Draw a bar model to solve each word problem, then write its letter in the boxes to fill in the missing word.

A strand of

S						S	
8	60	39	15	57	46	8	60

	I	N	K
58			

 hair turned up at the scene.

Ranger Rex has 2 times as many oxygen canisters as a teammate. The teammate has 4 oxygen canisters. How many oxygen canisters does Ranger Rex have?

draw a bar model

Answer:

--

 →

S

Ranger Rex has 135 oxygen canisters, packed 9 to a bag. How many bags can be filled?

draw a bar model

Answer:

--

 →

R

The red team has 96 meteor fragments and the blue team has 39 meteor fragments. How many more meteor fragments does the red team have?

draw a bar model

Answer:

--

 →

D

Ranger Rex shares 117 oxygen canisters equally among 3 teams. How many oxygen canisters does each team get?

draw a bar model

Answer:

--

 →

A

One group collected 4 space ferns and another group collected 42 space ferns. How many space ferns in all?

draw a bar model

Answer:

--

 →

U

One group collected 21 rocket carrots and another group collected 37 rocket carrots. How many rocket carrots in all?

draw a bar model

Answer:

--

 →

P

The red team has 82 space ferns and the blue team has 22 space ferns. How many more space ferns does the red team have?

draw a bar model

Answer:

--

 →

T

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

To power up the main computer, we must fill the energy core to its target. Find the missing energy units to read the final file!

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:

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

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

$3 + \underline{\quad} = 8$

$5 + \underline{\quad} = 17$

$10 + \underline{\quad} = 17$

$3 + \underline{\quad} = 9$

$6 + \underline{\quad} = 17$

$3 + \underline{\quad} = 12$

$9 + \underline{\quad} = 12$

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

$8 + \underline{\quad} = 9$

Step 2 - cross out the sentence with each answer:

1. The villain sliced the door with a laser tail, then tunneled out with an asteroid drill.
2. The villain cracked the floor with a gravity stomp, then zoomed away in rocket boots.
3. The villain cracked the floor with a gravity stomp, then tore through the fence with solar claws.
4. The villain blocked the alarms with a force field, then tunneled out with an asteroid drill.
5. The villain blocked the alarms with a force field, then tore through the fence with solar claws.
6. The villain melted the lock with a plasma roar, then zoomed away in rocket boots.
7. The villain sliced the door with a laser tail, then zoomed away in rocket boots.
8. The villain sliced the door with a laser tail, then tore through the fence with solar claws.
9. The villain blasted off with a jetpack, then spotted the target using nebula goggles.
10. The villain blasted off with a jetpack, then tore through the fence with solar claws.
11. The villain cracked the floor with a gravity stomp, then deflected the guards with a comet shield.
12. The villain cracked the floor with a gravity stomp, then spotted the target using nebula goggles.

Answer Key

The Galactic Amber Heist

Culprit: Penny Ptera

Gravity Stomp · Rocket Boots · Left clawed · Stardust Pink · Magnetic Nets

Trail: Start 21 → Clue 1 15 → Clue 2 10 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE SUSPECT DOES NOT WEAR NEBULA GOGGLES"

$196 + 305 = 501$ (T) · $216 + 321 = 537$ (G) · $334 + 576 = 910$ (E) · $114 + 255 = 369$ (O) · $149 + 314 = 463$ (H) · $280 + 299 = 579$ (R) · $245 + 342 = 587$ (L) · $398 + 214 = 612$ (U) · $321 + 450 = 771$ (D) · $236 + 311 = 547$ (S) · $126 + 99 = 225$ (P) · $334 + 515 = 849$ (W) · $432 + 236 = 668$ (A) · $260 + 538 = 798$ (B) · $167 + 75 = 242$ (N) · $94 + 121 = 215$ (C)

Clue 2 (Subtraction): "THE CHIPS WERE DROPPED BY A LEFT CLAW"

$623 - 330 = 293$ (T) · $678 - 108 = 570$ (D) · $444 - 322 = 122$ (Y) · $1124 - 345 = 779$ (A) · $961 - 199 = 762$ (B) · $932 - 270 = 662$ (C) · $676 - 94 = 582$ (F) · $1038 - 299 = 739$ (S) · $284 - 125 = 159$ (W) · $375 - 156 = 219$ (R) · $296 - 32 = 264$ (H) · $757 - 222 = 535$ (P) · $783 - 392 = 391$ (I) · $997 - 270 = 727$ (O) · $549 - 254 = 295$ (L) · $692 - 183 = 509$ (E)

Clue 3 (Rounding): "THE METAL NETS TRAPPED THE THIEF"

Round 59 to the nearest ten = 60 (T) · Round 21 to the nearest ten = 20 (P) · Round 6,558 to the nearest thousand = 7000 (A) · Round 206 to the nearest hundred = 200 (I) · Round 734 to the nearest hundred = 700 (D) · Round 553 to the nearest hundred = 600 (S) · Round 4,835 to the nearest thousand = 5000 (N) · Round 2,370 to the nearest thousand = 2000 (E) · Round 4,221 to the nearest thousand = 4000 (F) · Round 2,732 to the nearest thousand = 3000 (L) · Round 48 to the nearest ten = 50 (R) · Round 41 to the nearest ten = 40 (H) · Round 79 to the nearest ten = 80 (M)

Clue 4 (Bar model word problems): "STARDUST PINK"

Ranger Rex has 2 times as many oxygen canisters as a teammate. The teammate has 4 oxygen canisters. How many oxygen canisters does Ranger Rex have? = 8 (S) · Ranger Rex has 135 oxygen canisters, packed 9 to a bag. How many bags can be filled? = 15 (R) · The red team has 96 meteor fragments and the blue team has 39 meteor fragments. How many more meteor fragments does the red team have? = 57 (D) · Ranger Rex shares 117 oxygen canisters equally among 3 teams. How many oxygen canisters does each team get? = 39 (A) · One group collected 4 space ferns and another group collected 42 space ferns. How many space ferns in all? = 46 (U) · One group collected 21 rocket carrots and another group collected 37 rocket carrots. How many rocket carrots in all? = 58 (P) · The red team has 82 space ferns and the blue team has 22 space ferns. How many more space ferns does the red team have? = 60 (T)

Clue 5 (Missing addends): surviving statement is box 2 → Penny Ptera

$4 + \underline{\quad} = 8 = 4$ · $10 + \underline{\quad} = 20 = 10$ · $3 + \underline{\quad} = 8 = 5$ · $5 + \underline{\quad} = 17 = 12$ · $10 + \underline{\quad} = 17 = 7$ · $3 + \underline{\quad} = 9 = 6$ · $6 + \underline{\quad} = 17 = 11$ · $3 + \underline{\quad} = 12 = 9$ · $9 + \underline{\quad} = 12 = 3$ · $3 + \underline{\quad} = 11 = 8$ · $8 + \underline{\quad} = 9 = 1$