



# The Great Space-Cat Heist

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

Detective: \_\_\_\_\_ Date: \_\_\_\_\_

Oh no! A sneaky Astro-Cat has swiped the Golden T-Rex Fossil from the Star-Claw Museum! The suspect escaped into the cosmic jungles of Dino-Prime. We must use our math skills to scan the pawprints, gadgets, and clues to find the bandit before they escape the galaxy!

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 Space-Cat Bandit is** \_\_\_\_\_

# Possible suspects

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

| NAME            | DINO-SUIT UPGRADE  | COSMIC GADGET      | ACTIVE PAW         | SPACESUIT FUR COLOR | DISTRACTION TOY   |
|-----------------|--------------------|--------------------|--------------------|---------------------|-------------------|
| Laika Whiskers  | Pterodactyl Glider | Laser Pointer Beam | Left Paw Dominant  | Nebula Gray         | Squeaky Toy Mouse |
| Rexy Paw        | Raptor Speed Boots | Cosmic Yarn Ball   | Left Paw Dominant  | Calico Orange       | Shiny Laser Dot   |
| Nova Nibbles    | Triceratops Shield | Gravity Fish Toy   | Right Paw Dominant | Calico Orange       | Squeaky Toy Mouse |
| Barnaby Boots   | Ankylosaurus Club  | Gravity Fish Toy   | Left Paw Dominant  | Stardust White      | Squeaky Toy Mouse |
| Raptor Purr     | Pterodactyl Glider | Gravity Fish Toy   | Left Paw Dominant  | Calico Orange       | Scratching Post   |
| Felix Orbit     | Pterodactyl Glider | Gravity Fish Toy   | Right Paw Dominant | Calico Orange       | Scratching Post   |
| Captain Mittens | Pterodactyl Glider | Gravity Fish Toy   | Left Paw Dominant  | Stardust White      | Squeaky Toy Mouse |
| Baron Barnaby   | T-Rex Jetpack      | Meow Translator    | Left Paw Dominant  | Nebula Gray         | Squeaky Toy Mouse |
| Ziggy Stardust  | T-Rex Jetpack      | Starlight Catnip   | Right Paw Dominant | Nebula Gray         | Squeaky Toy Mouse |
| Gizmo Galaxy    | Pterodactyl Glider | Gravity Fish Toy   | Right Paw Dominant | Stardust White      | Squeaky Toy Mouse |
| Trixie Tricera  | Pterodactyl Glider | Gravity Fish Toy   | Left Paw Dominant  | Nebula Gray         | Scratching Post   |
| Leo Leonis      | Pterodactyl Glider | Cosmic Yarn Ball   | Right Paw Dominant | Stardust White      | Shiny Laser Dot   |
| Dino Dust       | T-Rex Jetpack      | Laser Pointer Beam | Right Paw Dominant | Stardust White      | Squeaky Toy Mouse |
| Nebula Nose     | T-Rex Jetpack      | Laser Pointer Beam | Left Paw Dominant  | Stardust White      | Squeaky Toy Mouse |
| Stego Scratch   | T-Rex Jetpack      | Starlight Catnip   | Left Paw Dominant  | Stardust White      | Scratching Post   |
| Sputnik Smudge  | Pterodactyl Glider | Cosmic Yarn Ball   | Left Paw Dominant  | Stardust White      | Squeaky Toy Mouse |
| Astrid Astro    | Raptor Speed Boots | Cosmic Yarn Ball   | Left Paw Dominant  | Calico Orange       | Squeaky Toy Mouse |
| Luna Rover      | Ankylosaurus Club  | Gravity Fish Toy   | Right Paw Dominant | Calico Orange       | Squeaky Toy Mouse |
| Ziggy Claw      | Raptor Speed Boots | Meow Translator    | Left Paw Dominant  | Nebula Gray         | Shiny Laser Dot   |
| Cosmo Claw      | Pterodactyl Glider | Starlight Catnip   | Left Paw Dominant  | Stardust White      | Squeaky Toy Mouse |
| Comet Tail      | Pterodactyl Glider | Laser Pointer Beam | Right Paw Dominant | Stardust White      | Squeaky Toy Mouse |

## CLUE 1 Addition

To pack for the space jungle hunt, the rescue team must add up all the laser-fish rations. Help them count the total cans to unlock the first clue!

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

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
| T    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
| 3587 | 2960 | 7361 | 5175 | 8174 | 7186 | 6172 | 9624 | 3587 | 6172 | 4879 | 7361 | 3178 | 7186 | 4879 | 3587 | 5346 | 3178 | 7361 |  |
|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
| 8174 | 7923 | 4879 | 3178 | 2583 | 9624 | 7923 | 4052 | 8174 | 4262 | 7186 | 5175 | 8174 | 3904 | 3904 |      |      |      |      |  |

|                                              |                                              |                                              |
|----------------------------------------------|----------------------------------------------|----------------------------------------------|
| $2054 + 1533 = \square \rightarrow \text{T}$ | $2441 + 4745 = \square \rightarrow \text{N}$ | $2997 + 2178 = \square \rightarrow \text{B}$ |
| $1353 + 1825 = \square \rightarrow \text{S}$ | $3350 + 1529 = \square \rightarrow \text{O}$ | $1327 + 1256 = \square \rightarrow \text{M}$ |
| $1684 + 2220 = \square \rightarrow \text{L}$ | $1551 + 1409 = \square \rightarrow \text{H}$ | $2197 + 2065 = \square \rightarrow \text{R}$ |
| $2067 + 1985 = \square \rightarrow \text{Y}$ | $2645 + 2701 = \square \rightarrow \text{U}$ | $4107 + 5517 = \square \rightarrow \text{I}$ |
| $4233 + 1939 = \square \rightarrow \text{D}$ | $3394 + 4529 = \square \rightarrow \text{C}$ | $3293 + 4881 = \square \rightarrow \text{A}$ |
| $3140 + 4221 = \square \rightarrow \text{E}$ |                                              |                                              |

Scratch space:

## CLUE 2 Rounding

Our starship radar detects cosmic energy waves, but the screen only shows numbers rounded to the nearest ten. Round the energy readings to pinpoint the sector!

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

|              |      |     |              |     |      |      |              |              |              |     |      |     |              |     |      |              |      |     |
|--------------|------|-----|--------------|-----|------|------|--------------|--------------|--------------|-----|------|-----|--------------|-----|------|--------------|------|-----|
| <div>T</div> |      |     |              |     |      |      |              |              | <div>T</div> |     |      |     | <div>T</div> |     |      |              |      |     |
| 500          | 5000 | 130 | 700          | 300 | 700  | 4300 | 130          | 290          | 500          | 70  | 130  | 430 | 500          |     |      |              |      |     |
|              |      |     |              |     |      |      | <div>T</div> | <div>T</div> |              |     |      |     |              |     |      | <div>T</div> |      |     |
| 4300         | 370  | 20  | 4300         | 90  | 3700 | 7000 | 500          | 500          | 90           | 370 | 3700 | 70  | 700          | 900 | 7000 | 500          | 5000 | 130 |
|              |      |     | <div>T</div> |     |      |      |              |              |              |     |      |     |              |     |      |              |      |     |
| 70           | 130  | 430 | 500          |     |      |      |              |              |              |     |      |     |              |     |      |              |      |     |

Round 522 to the nearest hundred  → 

T

Round 898 to the nearest hundred  → 

O

Round 86 to the nearest ten  → 

R

Round 69 to the nearest ten  → 

L

Round 127 to the nearest ten  → 

E

Round 252 to the nearest hundred  → 

U

Round 292 to the nearest ten  → 

C

Round 4,292 to the nearest hundred  → 

P

Round 6,796 to the nearest thousand  → 

N

Round 23 to the nearest ten  → 

W

Round 3,726 to the nearest hundred  → 

I

Round 431 to the nearest ten  → 

F

Round 372 to the nearest ten  → 

A

Round 5,048 to the nearest thousand  → 

H

Round 717 to the nearest hundred  → 

S

Scratch space:

## CLUE 3

## Subtraction

A clumsy raptor knocked over our rocket fuel cells, and some rolled away. Subtract the lost cells to find out how much fuel we have left!

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

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| A    |      |      |      |      | A    |      |      |      |      |      |      |      |      |      |      |
| 4529 | 4295 | 7165 | 7628 | 8640 | 4529 | 1207 | 5528 | 5914 | 4147 | 5528 | 2915 | 4147 | 7628 | 4295 | 8640 |
|      |      |      |      |      |      |      |      |      |      |      | A    |      |      |      |      |
| 4295 | 5914 | 4147 | 8764 | 8764 | 8640 | 5826 | 5914 | 1679 | 8640 | 3055 | 4529 | 8813 | 5826 | 6816 | 5914 |

$4635 - 106 = \square \rightarrow \boxed{\text{A}}$

$4392 - 1477 = \square \rightarrow \boxed{\text{M}}$

$10619 - 1855 = \square \rightarrow \boxed{\text{P}}$

$5862 - 4183 = \square \rightarrow \boxed{\text{H}}$

$11464 - 3836 = \square \rightarrow \boxed{\text{U}}$

$9649 - 836 = \square \rightarrow \boxed{\text{N}}$

$6930 - 1016 = \square \rightarrow \boxed{\text{T}}$

$6920 - 2773 = \square \rightarrow \boxed{\text{O}}$

$7796 - 1970 = \square \rightarrow \boxed{\text{D}}$

$8699 - 59 = \square \rightarrow \boxed{\text{E}}$

$3660 - 605 = \square \rightarrow \boxed{\text{B}}$

$10435 - 3270 = \square \rightarrow \boxed{\text{Q}}$

$8958 - 3430 = \square \rightarrow \boxed{\text{Y}}$

$10679 - 3863 = \square \rightarrow \boxed{\text{I}}$

$8812 - 4517 = \square \rightarrow \boxed{\text{S}}$

$3778 - 2571 = \square \rightarrow \boxed{\text{K}}$

Scratch space:

## CLUE 4

## Multiplication facts (1-12)

We found rows of mysterious glowing dinosaur eggs arranged in perfect grids. Multiply the rows and columns to count the eggs and light our path!

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

|    |     |    |    |   |     |    |   |    |    |    |    |   |     |    |    |
|----|-----|----|----|---|-----|----|---|----|----|----|----|---|-----|----|----|
| T  |     |    |    |   |     |    |   |    |    |    |    |   |     |    |    |
| 80 | 120 | 21 | 21 | 8 | 110 | 56 | 8 | 21 | 12 | 15 | 54 | 6 | 120 | 81 | 32 |

|    |    |    |    |    |    |    |    |    |     |    |    |    |    |    |    |     |    |    |    |
|----|----|----|----|----|----|----|----|----|-----|----|----|----|----|----|----|-----|----|----|----|
|    | T  |    |    |    |    |    | T  |    |     |    | T  |    |    |    | T  |     |    |    |    |
| 55 | 80 | 81 | 20 | 32 | 90 | 55 | 80 | 54 | 120 | 56 | 80 | 21 | 12 | 81 | 80 | 120 | 81 | 56 | 20 |

$8 \times 10 = \square \rightarrow \boxed{\text{T}}$

$5 \times 4 = \square \rightarrow \boxed{\text{R}}$

$2 \times 3 = \square \rightarrow \boxed{\text{L}}$

$9 \times 6 = \square \rightarrow \boxed{\text{W}}$

$7 \times 3 = \square \rightarrow \boxed{\text{E}}$

$10 \times 9 = \square \rightarrow \boxed{\text{U}}$

$4 \times 2 = \square \rightarrow \boxed{\text{N}}$

$10 \times 12 = \square \rightarrow \boxed{\text{H}}$

$12 \times 1 = \square \rightarrow \boxed{\text{C}}$

$9 \times 9 = \square \rightarrow \boxed{\text{A}}$

$11 \times 5 = \square \rightarrow \boxed{\text{S}}$

$3 \times 5 = \square \rightarrow \boxed{\text{O}}$

$11 \times 10 = \square \rightarrow \boxed{\text{G}}$

$8 \times 4 = \square \rightarrow \boxed{\text{D}}$

$8 \times 7 = \square \rightarrow \boxed{\text{I}}$

Scratch space:

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

The friendly space triceratops will help us cross the river if we share our star-berries equally. Divide the berries among the dinosaurs to get across!

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:**

$21 \div 7 = \boxed{\phantom{00}}$

$120 \div 12 = \boxed{\phantom{00}}$

$64 \div 8 = \boxed{\phantom{00}}$

$21 \div 3 = \boxed{\phantom{00}}$

$30 \div 6 = \boxed{\phantom{00}}$

$20 \div 5 = \boxed{\phantom{00}}$

$8 \div 4 = \boxed{\phantom{00}}$

$5 \div 5 = \boxed{\phantom{00}}$

$120 \div 10 = \boxed{\phantom{00}}$

$24 \div 4 = \boxed{\phantom{00}}$

$72 \div 8 = \boxed{\phantom{00}}$

**Step 2 - cross out the sentence with each answer:**

1. The villain smashes through the gate with an ankylosaurus club, then shines a blinding laser pointer beam.
2. The villain dashes away in raptor speed boots, then tosses a heavy gravity fish toy.
3. The villain soars overhead on a pterodactyl glider, then tosses a heavy gravity fish toy.
4. The villain blasts off using a t-rex jetpack, then screams into a loud meow translator.
5. The villain blocks the doorway with a triceratops shield, then drops a bag of sleepy starlight catnip.
6. The villain blasts off using a t-rex jetpack, then rolls a giant cosmic yarn ball.
7. The villain blocks the doorway with a triceratops shield, then screams into a loud meow translator.
8. The villain blasts off using a t-rex jetpack, then shines a blinding laser pointer beam.
9. The villain dashes away in raptor speed boots, then rolls a giant cosmic yarn ball.
10. The villain soars overhead on a pterodactyl glider, then drops a bag of sleepy starlight catnip.
11. The villain smashes through the gate with an ankylosaurus club, then tosses a heavy gravity fish toy.
12. The villain dashes away in raptor speed boots, then shines a blinding laser pointer beam.

# Answer Key

## The Great Space-Cat Heist

### Culprit: Barnaby Boots

Ankylosaurus Club · Gravity Fish Toy · Left Paw Dominant · Stardust White · Squeaky Toy Mouse

Trail: Start 21 → Clue 1 17 → Clue 2 10 → Clue 3 6 → Clue 4 4 → Clue 5 1

#### Clue 1 (Addition): "THE BANDIT DOES NOT USE A COSMIC YARN BALL"

$2054 + 1533 = 3587$  (T) ·  $2441 + 4745 = 7186$  (N) ·  $2997 + 2178 = 5175$  (B) ·  $1353 + 1825 = 3178$  (S) ·  $3350 + 1529 = 4879$  (O) ·  $1327 + 1256 = 2583$  (M) ·  $1684 + 2220 = 3904$  (L) ·  $1551 + 1409 = 2960$  (H) ·  $2197 + 2065 = 4262$  (R) ·  $2067 + 1985 = 4052$  (Y) ·  $2645 + 2701 = 5346$  (U) ·  $4107 + 5517 = 9624$  (I) ·  $4233 + 1939 = 6172$  (D) ·  $3394 + 4529 = 7923$  (C) ·  $3293 + 4881 = 8174$  (A) ·  $3140 + 4221 = 7361$  (E)

#### Clue 2 (Rounding): "THE SUSPECT LEFT PAWPRINT TRAILS ON THE LEFT"

Round 522 to the nearest hundred = 500 (T) · Round 898 to the nearest hundred = 900 (O) · Round 86 to the nearest ten = 90 (R) · Round 69 to the nearest ten = 70 (L) · Round 127 to the nearest ten = 130 (E) · Round 252 to the nearest hundred = 300 (U) · Round 292 to the nearest ten = 290 (C) · Round 4,292 to the nearest hundred = 4300 (P) · Round 6,796 to the nearest thousand = 7000 (N) · Round 23 to the nearest ten = 20 (W) · Round 3,726 to the nearest hundred = 3700 (I) · Round 431 to the nearest ten = 430 (F) · Round 372 to the nearest ten = 370 (A) · Round 5,048 to the nearest thousand = 5000 (H) · Round 717 to the nearest hundred = 700 (S)

#### Clue 3 (Subtraction): "A SQUEAKY TOY MOUSE STOPPED THE BANDIT"

$4635 - 106 = 4529$  (A) ·  $4392 - 1477 = 2915$  (M) ·  $10619 - 1855 = 8764$  (P) ·  $5862 - 4183 = 1679$  (H) ·  $11464 - 3836 = 7628$  (U) ·  $9649 - 836 = 8813$  (N) ·  $6930 - 1016 = 5914$  (T) ·  $6920 - 2773 = 4147$  (O) ·  $7796 - 1970 = 5826$  (D) ·  $8699 - 59 = 8640$  (E) ·  $3660 - 605 = 3055$  (B) ·  $10435 - 3270 = 7165$  (Q) ·  $8958 - 3430 = 5528$  (Y) ·  $10679 - 3863 = 6816$  (I) ·  $8812 - 4517 = 4295$  (S) ·  $3778 - 2571 = 1207$  (K)

#### Clue 4 (Multiplication facts (1-12)): "THE ENGINE COWL HAD STARDUST WHITE CAT HAIR"

$8 \times 10 = 80$  (T) ·  $5 \times 4 = 20$  (R) ·  $2 \times 3 = 6$  (L) ·  $9 \times 6 = 54$  (W) ·  $7 \times 3 = 21$  (E) ·  $10 \times 9 = 90$  (U) ·  $4 \times 2 = 8$  (N) ·  $10 \times 12 = 120$  (H) ·  $12 \times 1 = 12$  (C) ·  $9 \times 9 = 81$  (A) ·  $11 \times 5 = 55$  (S) ·  $3 \times 5 = 15$  (O) ·  $11 \times 10 = 110$  (G) ·  $8 \times 4 = 32$  (D) ·  $8 \times 7 = 56$  (I)

#### Clue 5 (Division facts (1-12)): surviving statement is box 11 → Barnaby Boots

$21 \div 7 = 3$  ·  $120 \div 12 = 10$  ·  $64 \div 8 = 8$  ·  $21 \div 3 = 7$  ·  $30 \div 6 = 5$  ·  $20 \div 5 = 4$  ·  $8 \div 4 = 2$  ·  $5 \div 5 = 1$  ·  $120 \div 10 = 12$  ·  $24 \div 4 = 6$  ·  $72 \div 8 = 9$