



# The Mystery of the Astro-Dome Bandit

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

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

Someone sneaked into the Astro-Dome and snatched the rare golden Moon-Peach! Chief Botanist Cosmo needs your help. Look at the data pads, check the clues, and find the space bandit!

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 bandit is** \_\_\_\_\_

# Possible suspects

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

| NAME   | SPACE GEAR       | HELMET TYPE   | FLIGHT SUIT        | HAIR GLOW         | WEAKNESS              |
|--------|------------------|---------------|--------------------|-------------------|-----------------------|
| Kepler | Hover Skates     | Bubble Helmet | Orange Flight Suit | Sparkly Pink Glow | Moon Dust Allergy     |
| Ray    | Hover Skates     | Gold Visor    | Orange Flight Suit | Neon Green Glow   | Loves Space Popcorn   |
| Rocket | Magnetic Gloves  | Neon Mask     | Orange Flight Suit | Sparkly Pink Glow | Loves Space Popcorn   |
| Sunny  | Laser Lasso      | Bubble Helmet | Blue Flight Suit   | Neon Green Glow   | Loves Space Popcorn   |
| Draco  | Gravity Boots    | Neon Mask     | Blue Flight Suit   | Spiky Purple Glow | Moon Dust Allergy     |
| Lyra   | Hover Skates     | Bubble Helmet | Orange Flight Suit | Neon Green Glow   | Loves Space Popcorn   |
| Zelda  | Laser Lasso      | Antenna Cap   | Blue Flight Suit   | Spiky Purple Glow | Loves Space Popcorn   |
| Orion  | Jetpack Backpack | Star Goggles  | Blue Flight Suit   | Neon Green Glow   | Afraid of Robot Beeps |
| Mars   | Hover Skates     | Star Goggles  | Orange Flight Suit | Sparkly Pink Glow | Moon Dust Allergy     |
| Ziggy  | Magnetic Gloves  | Antenna Cap   | Orange Flight Suit | Neon Green Glow   | Loves Space Popcorn   |
| Leo    | Laser Lasso      | Antenna Cap   | Orange Flight Suit | Spiky Purple Glow | Loves Space Popcorn   |
| Comet  | Hover Skates     | Bubble Helmet | Blue Flight Suit   | Spiky Purple Glow | Moon Dust Allergy     |
| Stella | Jetpack Backpack | Gold Visor    | Orange Flight Suit | Neon Green Glow   | Afraid of Robot Beeps |
| Pluto  | Laser Lasso      | Bubble Helmet | Orange Flight Suit | Neon Green Glow   | Loves Space Popcorn   |
| Astro  | Jetpack Backpack | Star Goggles  | Blue Flight Suit   | Neon Green Glow   | Loves Space Popcorn   |
| Drifty | Jetpack Backpack | Gold Visor    | Blue Flight Suit   | Neon Green Glow   | Moon Dust Allergy     |
| Zara   | Hover Skates     | Gold Visor    | Blue Flight Suit   | Spiky Purple Glow | Loves Space Popcorn   |
| Pip    | Hover Skates     | Star Goggles  | Orange Flight Suit | Neon Green Glow   | Afraid of Robot Beeps |
| Bixby  | Jetpack Backpack | Bubble Helmet | Orange Flight Suit | Spiky Purple Glow | Moon Dust Allergy     |
| Venus  | Hover Skates     | Star Goggles  | Orange Flight Suit | Neon Green Glow   | Loves Space Popcorn   |
| Luna   | Hover Skates     | Bubble Helmet | Orange Flight Suit | Sparkly Pink Glow | Loves Space Popcorn   |

## CLUE 1 Rounding

The starship's radar screen is fuzzy. It only shows the rounded number of miles to the bandit's runaway ship. Round this number to the nearest ten to unlock the first clue.

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

|          |      |      |     |     |      |          |     |          |      |      |      |     |      |     |      |          |
|----------|------|------|-----|-----|------|----------|-----|----------|------|------|------|-----|------|-----|------|----------|
| <b>T</b> |      |      |     |     |      |          |     | <b>T</b> |      |      |      |     |      |     |      | <b>T</b> |
| 3000     | 800  | 7000 | 300 | 90  | 8000 | 4000     | 600 | 3000     | 4000 | 70   | 7000 | 200 | 8000 | 70  | 3000 |          |
|          |      |      |     |     |      | <b>T</b> |     |          |      |      |      |     |      |     |      |          |
| 80       | 7000 | 90   | 400 | 200 | 3000 | 90       | 400 | 9000     | 70   | 9000 | 9000 | 20  | 7000 | 200 |      |          |

Round 3,296 to the nearest thousand  → **T**

Round 238 to the nearest hundred  → **S**

Round 849 to the nearest hundred  → **H**

Round 73 to the nearest ten  → **O**

Round 20 to the nearest ten  → **L**

Round 7,189 to the nearest thousand  → **E**

Round 275 to the nearest hundred  → **B**

Round 610 to the nearest hundred  → **I**

Round 9,123 to the nearest thousand  → **G**

Round 4,133 to the nearest thousand  → **D**

Round 90 to the nearest ten  → **A**

Round 383 to the nearest hundred  → **R**

Round 81 to the nearest ten  → **W**

Round 8,051 to the nearest thousand  → **N**

Scratch space:

## CLUE 2 Addition

Chief Cosmo counts the empty plant pots left in the garden. By adding the red pots to the blue pots, we can decode the next security screen.

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

|          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |          |  |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|--|
| <b>O</b> |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | <b>O</b> |  |
| 474      | 880 | 402 | 299 | 350 | 853 | 700 | 302 | 880 | 853 | 402 | 870 | 650 | 536 | 853 | 880 | 853 | 474 | 299      |  |

  

|     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|
|     |     |     |     |     |     |
| 700 | 302 | 853 | 267 | 853 | 329 |

$$220 + 254 = \boxed{\phantom{00}} \rightarrow \boxed{\text{O}}$$

$$157 + 193 = \boxed{\phantom{00}} \rightarrow \boxed{\text{G}}$$

$$254 + 396 = \boxed{\phantom{00}} \rightarrow \boxed{\text{S}}$$

$$522 + 358 = \boxed{\phantom{00}} \rightarrow \boxed{\text{R}}$$

$$95 + 204 = \boxed{\phantom{00}} \rightarrow \boxed{\text{N}}$$

$$433 + 267 = \boxed{\phantom{00}} \rightarrow \boxed{\text{T}}$$

$$252 + 150 = \boxed{\phantom{00}} \rightarrow \boxed{\text{A}}$$

$$86 + 181 = \boxed{\phantom{00}} \rightarrow \boxed{\text{L}}$$

$$413 + 440 = \boxed{\phantom{00}} \rightarrow \boxed{\text{E}}$$

$$399 + 471 = \boxed{\phantom{00}} \rightarrow \boxed{\text{D}}$$

$$128 + 174 = \boxed{\phantom{00}} \rightarrow \boxed{\text{H}}$$

$$237 + 299 = \boxed{\phantom{00}} \rightarrow \boxed{\text{W}}$$

$$104 + 225 = \boxed{\phantom{00}} \rightarrow \boxed{\text{V}}$$

Scratch space:

## CLUE 3

## Subtraction

The bandit dropped some heavy cargo pods to speed up their escape. If we subtract the dropped pods from the total pods, we get the key to open the vault.

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

|          |     |     |     |     |     |     |     |     |     |     |     |     |     |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <b>W</b> |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 470      | 613 | 404 | 362 | 776 | 374 | 830 | 274 | 362 | 274 | 515 | 362 | 773 | 374 |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 819 | 613 | 773 | 374 | 613 | 136 | 172 | 154 | 374 | 734 | 607 | 613 | 136 | 438 | 236 |

$558 - 88 = \square \rightarrow \boxed{\text{W}}$

$751 - 144 = \square \rightarrow \boxed{\text{H}}$

$1130 - 396 = \square \rightarrow \boxed{\text{T}}$

$1166 - 347 = \square \rightarrow \boxed{\text{K}}$

$527 - 355 = \square \rightarrow \boxed{\text{S}}$

$410 - 174 = \square \rightarrow \boxed{\text{B}}$

$657 - 44 = \square \rightarrow \boxed{\text{E}}$

$997 - 224 = \square \rightarrow \boxed{\text{R}}$

$1169 - 393 = \square \rightarrow \boxed{\text{U}}$

$457 - 19 = \square \rightarrow \boxed{\text{A}}$

$1177 - 347 = \square \rightarrow \boxed{\text{D}}$

$434 - 72 = \square \rightarrow \boxed{\text{O}}$

$656 - 282 = \square \rightarrow \boxed{\text{N}}$

$796 - 281 = \square \rightarrow \boxed{\text{C}}$

$516 - 112 = \square \rightarrow \boxed{\text{F}}$

$520 - 384 = \square \rightarrow \boxed{\text{L}}$

$353 - 199 = \square \rightarrow \boxed{\text{I}}$

$656 - 382 = \square \rightarrow \boxed{\text{P}}$

Scratch space:

**CLUE 4**
**Multiplication facts (1-12)**

The launchpad has several rows of solar panels. Multiply the number of rows by the panels in each row to find the power code for this clue pad.

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

|    |    |    |    |    |    |     |    |    |    |   |    |    |    |    |    |   |    |
|----|----|----|----|----|----|-----|----|----|----|---|----|----|----|----|----|---|----|
| A  |    |    |    |    |    |     | A  |    |    |   | A  |    |    |    |    |   |    |
| 16 | 84 | 14 | 50 | 50 | 45 | 9   | 16 | 60 | 14 | 4 | 16 | 49 | 80 | 45 | 77 | 9 | 50 |
|    |    |    |    |    |    |     | A  |    |    |   |    |    |    |    |    |   |    |
| 66 | 80 | 45 | 77 | 14 | 80 | 100 | 55 | 16 | 56 |   |    |    |    |    |    |   |    |

|                                       |                                        |                                       |                                      |
|---------------------------------------|----------------------------------------|---------------------------------------|--------------------------------------|
| $8 \times 2 = \square \rightarrow$ A  | $5 \times 10 = \square \rightarrow$ E  | $6 \times 11 = \square \rightarrow$ C |                                      |
| $7 \times 7 = \square \rightarrow$ S  | $5 \times 11 = \square \rightarrow$ P  | $7 \times 2 = \square \rightarrow$ R  | $3 \times 3 = \square \rightarrow$ H |
| $8 \times 7 = \square \rightarrow$ D  | $12 \times 7 = \square \rightarrow$ G  | $5 \times 12 = \square \rightarrow$ I |                                      |
| $5 \times 9 = \square \rightarrow$ N  | $8 \times 10 = \square \rightarrow$ O  | $2 \times 2 = \square \rightarrow$ W  |                                      |
| $7 \times 11 = \square \rightarrow$ T | $10 \times 10 = \square \rightarrow$ L |                                       |                                      |

Scratch space:

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

A group of cute space monkeys found some glow-berries and shared them equally. Find how many berries each monkey got to unlock the final computer screen.

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:**

$77 \div 11 = \boxed{\phantom{00}}$

$48 \div 8 = \boxed{\phantom{00}}$

$22 \div 2 = \boxed{\phantom{00}}$

$4 \div 2 = \boxed{\phantom{00}}$

$15 \div 5 = \boxed{\phantom{00}}$

$70 \div 7 = \boxed{\phantom{00}}$

$72 \div 6 = \boxed{\phantom{00}}$

$81 \div 9 = \boxed{\phantom{00}}$

$20 \div 4 = \boxed{\phantom{00}}$

$11 \div 11 = \boxed{\phantom{00}}$

$32 \div 4 = \boxed{\phantom{00}}$

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

1. The villain stomped with gravity boots, then fogged up a bubble helmet.
2. The villain climbed with magnetic gloves, then adjusted a neon mask.
3. The villain zoomed with a jetpack backpack, then polished a gold visor.
4. The villain glided on hover skates, then fogged up a bubble helmet.
5. The villain climbed with magnetic gloves, then polished a gold visor.
6. The villain climbed with magnetic gloves, then wiggled an antenna cap.
7. The villain swung a laser lasso, then fogged up a bubble helmet.
8. The villain climbed with magnetic gloves, then fogged up a bubble helmet.
9. The villain stomped with gravity boots, then polished a gold visor.
10. The villain swung a laser lasso, then adjusted a neon mask.
11. The villain glided on hover skates, then polished a gold visor.
12. The villain climbed with magnetic gloves, then adjusted some star goggles.

# Answer Key

## The Mystery of the Astro-Dome Bandit

### Culprit: Lyra

Hover Skates · Bubble Helmet · Orange Flight Suit · Neon Green Glow · Loves Space Popcorn

Trail: Start 21 → Clue 1 16 → Clue 2 10 → Clue 3 7 → Clue 4 4 → Clue 5 1

### Clue 1 (Rounding): "THE BANDIT DOES NOT WEAR STAR GOGGLES"

Round 3,296 to the nearest thousand = 3000 (T) · Round 238 to the nearest hundred = 200 (S) · Round 849 to the nearest hundred = 800 (H) · Round 73 to the nearest ten = 70 (O) · Round 20 to the nearest ten = 20 (L) · Round 7,189 to the nearest thousand = 7000 (E) · Round 275 to the nearest hundred = 300 (B) · Round 610 to the nearest hundred = 600 (I) · Round 9,123 to the nearest thousand = 9000 (G) · Round 4,133 to the nearest thousand = 4000 (D) · Round 90 to the nearest ten = 90 (A) · Round 383 to the nearest hundred = 400 (R) · Round 81 to the nearest ten = 80 (W) · Round 8,051 to the nearest thousand = 8000 (N)

### Clue 2 (Addition): "ORANGE THREADS WERE ON THE LEVER"

$220 + 254 = 474$  (O) ·  $157 + 193 = 350$  (G) ·  $254 + 396 = 650$  (S) ·  $522 + 358 = 880$  (R) ·  $95 + 204 = 299$  (N) ·  $433 + 267 = 700$  (T) ·  $252 + 150 = 402$  (A) ·  $86 + 181 = 267$  (L) ·  $413 + 440 = 853$  (E) ·  $399 + 471 = 870$  (D) ·  $128 + 174 = 302$  (H) ·  $237 + 299 = 536$  (W) ·  $104 + 225 = 329$  (V)

### Clue 3 (Subtraction): "WE FOUND POPCORN KERNELS IN THE LAB"

$558 - 88 = 470$  (W) ·  $751 - 144 = 607$  (H) ·  $1130 - 396 = 734$  (T) ·  $1166 - 347 = 819$  (K) ·  $527 - 355 = 172$  (S) ·  $410 - 174 = 236$  (B) ·  $657 - 44 = 613$  (E) ·  $997 - 224 = 773$  (R) ·  $1169 - 393 = 776$  (U) ·  $457 - 19 = 438$  (A) ·  $1177 - 347 = 830$  (D) ·  $434 - 72 = 362$  (O) ·  $656 - 282 = 374$  (N) ·  $796 - 281 = 515$  (C) ·  $516 - 112 = 404$  (F) ·  $520 - 384 = 136$  (L) ·  $353 - 199 = 154$  (I) ·  $656 - 382 = 274$  (P)

### Clue 4 (Multiplication facts (1-12)): "A GREEN HAIR WAS ON THE CONTROL PAD"

$8 \times 2 = 16$  (A) ·  $5 \times 10 = 50$  (E) ·  $6 \times 11 = 66$  (C) ·  $7 \times 7 = 49$  (S) ·  $5 \times 11 = 55$  (P) ·  $7 \times 2 = 14$  (R) ·  $3 \times 3 = 9$  (H) ·  $8 \times 7 = 56$  (D) ·  $12 \times 7 = 84$  (G) ·  $5 \times 12 = 60$  (I) ·  $5 \times 9 = 45$  (N) ·  $8 \times 10 = 80$  (O) ·  $2 \times 2 = 4$  (W) ·  $7 \times 11 = 77$  (T) ·  $10 \times 10 = 100$  (L)

### Clue 5 (Division facts (1-12)): surviving statement is box 4 → Lyra

$77 \div 11 = 7$  ·  $48 \div 8 = 6$  ·  $22 \div 2 = 11$  ·  $4 \div 2 = 2$  ·  $15 \div 5 = 3$  ·  $70 \div 7 = 10$  ·  $72 \div 6 = 12$  ·  $81 \div 9 = 9$  ·  $20 \div 4 = 5$  ·  $11 \div 11 = 1$  ·  $32 \div 4 = 8$