



The Case of the Cosmic Cat Cruiser

Grade 2 math · Addition, Subtraction, Multiplication, Rounding, Missing addends · Reading level grades 1-2

Detective: _____ Date: _____

The golden tuna trophy has been swiped from the Cosmic Cat Cruiser! A sneaky Space Bandit Cat has taken it, and we must find out who did it before we land on the Moon!

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 Cat is _____

Possible suspects

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

NAME	SPACE POWER	GADGET POWER	CLAW GRIP	FUR COLOR	SECRET WEAKNESS
Loki	Astro Purr	Nebula Jump	Right-pawed	Silver Fur	Water Spray
Simba	Super Claw Swipe	Star Shield	Right-pawed	Calico Fur	Catnip Mist
Comet	Jetpack Bounce	Bubble Trap	Left-pawed	Orange Fur	Water Spray
Ziggy	Jetpack Bounce	Warp Speed Dash	Left-pawed	Silver Fur	Catnip Mist
Nova	Zero-G Float	Cosmic Meow	Right-pawed	Silver Fur	Catnip Mist
Shadow	Zero-G Float	Nebula Jump	Left-pawed	Orange Fur	Catnip Mist
Socks	Jetpack Bounce	Bubble Trap	Right-pawed	Orange Fur	Catnip Mist
Stella	Laser Beam Eyes	Warp Speed Dash	Left-pawed	Silver Fur	Water Spray
Astro	Zero-G Float	Nebula Jump	Right-pawed	Silver Fur	Water Spray
Buster	Jetpack Bounce	Star Shield	Left-pawed	Orange Fur	Squeaky Toy
Orion	Laser Beam Eyes	Nebula Jump	Right-pawed	Orange Fur	Water Spray
Pip	Laser Beam Eyes	Cosmic Meow	Right-pawed	Orange Fur	Squeaky Toy
Barnaby	Super Claw Swipe	Cosmic Meow	Left-pawed	Calico Fur	Squeaky Toy
Whiskers	Super Claw Swipe	Nebula Jump	Left-pawed	Silver Fur	Water Spray
Mittens	Astro Purr	Star Shield	Right-pawed	Silver Fur	Water Spray
Pluto	Super Claw Swipe	Star Shield	Right-pawed	Silver Fur	Catnip Mist
Clover	Laser Beam Eyes	Star Shield	Right-pawed	Orange Fur	Catnip Mist
Milo	Super Claw Swipe	Bubble Trap	Right-pawed	Silver Fur	Water Spray
Leo	Zero-G Float	Nebula Jump	Left-pawed	Silver Fur	Squeaky Toy
Boots	Jetpack Bounce	Cosmic Meow	Right-pawed	Silver Fur	Water Spray
Cosmo	Super Claw Swipe	Warp Speed Dash	Left-pawed	Silver Fur	Squeaky Toy

CLUE 1 Addition

We count the empty space milk cartons left on the deck. Add them up to get our first clue!

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

T								T							T			
96	23	78	82	84	54	32	66	96	32	22	78	37	54	22	96	91	37	78

		T								
84	37	96	84	70	37	23	66	78	67	32

$64 + 32 = \square \rightarrow \text{[T]}$

$44 + 26 = \square \rightarrow \text{[R]}$

$41 + 50 = \square \rightarrow \text{[U]}$

$48 + 36 = \square \rightarrow \text{[A]}$

$48 + 30 = \square \rightarrow \text{[E]}$

$58 + 24 = \square \rightarrow \text{[B]}$

$29 + 38 = \square \rightarrow \text{[L]}$

$11 + 12 = \square \rightarrow \text{[H]}$

$23 + 9 = \square \rightarrow \text{[D]}$

$27 + 27 = \square \rightarrow \text{[N]}$

$14 + 23 = \square \rightarrow \text{[S]}$

$16 + 6 = \square \rightarrow \text{[O]}$

$37 + 29 = \square \rightarrow \text{[I]}$

Scratch space:

CLUE 2 Subtraction

A helper dropped some shiny star badges on the floor. Take away the lost badges to find the next clue!

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

T																
79	55	78	81	72	59	57	77	79	41	58	78	58	61	59	70	64

T										
79	55	78	17	77	83	55	79	89	72	27

$91 - 12 = \square \rightarrow \text{T}$	$100 - 11 = \square \rightarrow \text{P}$	$46 - 29 = \square \rightarrow \text{R}$
$83 - 22 = \square \rightarrow \text{O}$	$64 - 7 = \square \rightarrow \text{D}$	$104 - 26 = \square \rightarrow \text{E}$
$92 - 11 = \square \rightarrow \text{B}$	$107 - 30 = \square \rightarrow \text{I}$	$70 - 12 = \square \rightarrow \text{S}$
$70 - 11 = \square \rightarrow \text{N}$	$79 - 9 = \square \rightarrow \text{L}$	$46 - 19 = \square \rightarrow \text{W}$
$59 - 18 = \square \rightarrow \text{U}$	$74 - 19 = \square \rightarrow \text{H}$	$98 - 34 = \square \rightarrow \text{Y}$
$103 - 20 = \square \rightarrow \text{G}$	$88 - 16 = \square \rightarrow \text{A}$	

Scratch space:

CLUE 3

Multiplication facts (1-12)

The cute space mice sit in equal rows on the kitchen shelf. Multiply the rows to see what they found!

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

A				A					A							
8	1	54	110	8	144	20	3	27	8	5	36	110	27	21	81	81

							A					
1	5	20	54	5	35	36	64	8	16	32	21	5

$8 \times 1 = \square \rightarrow \boxed{\text{A}}$

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

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

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

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

$1 \times 1 = \square \rightarrow \boxed{\text{S}}$

$9 \times 4 = \square \rightarrow \boxed{\text{E}}$

$3 \times 9 = \square \rightarrow \boxed{\text{W}}$

$12 \times 12 = \square \rightarrow \boxed{\text{Y}}$

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

$5 \times 1 = \square \rightarrow \boxed{\text{T}}$

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

$5 \times 7 = \square \rightarrow \boxed{\text{H}}$

$8 \times 8 = \square \rightarrow \boxed{\text{B}}$

$1 \times 3 = \square \rightarrow \boxed{\text{F}}$

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

Scratch space:

CLUE 4

Rounding

The stardust radar shows a fuzzy number. Round it to the nearest ten to unlock the video clue!

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

W																	
700	800	900	30	200	400	70	50	90	300	500	800	600	900	200	600	30	400

40	60	800	20	60	80	90	600

Round 705 to the nearest hundred → **W**

Round 794 to the nearest hundred → **E**

Round 851 to the nearest hundred → **F**

Round 612 to the nearest hundred → **R**

Round 79 to the nearest ten → **A**

Round 30 to the nearest ten → **O**

Round 23 to the nearest ten → **C**

Round 274 to the nearest hundred → **L**

Round 60 to the nearest ten → **H**

Round 52 to the nearest ten → **S**

Round 189 to the nearest hundred → **U**

Round 424 to the nearest hundred → **N**

Round 452 to the nearest hundred → **V**

Round 87 to the nearest ten → **I**

Round 70 to the nearest ten → **D**

Round 42 to the nearest ten → **T**

Scratch space:

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

We need ten fuel packs to run the scanner, but we only have some. Find how many are missing to get the last clue!

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:

$5 + \underline{\quad} = 13$

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

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

$2 + \underline{\quad} = 9$

$1 + \underline{\quad} = 7$

$3 + \underline{\quad} = 6$

$6 + \underline{\quad} = 8$

$9 + \underline{\quad} = 21$

$2 + \underline{\quad} = 3$

$8 + \underline{\quad} = 13$

$5 + \underline{\quad} = 14$

Step 2 - cross out the sentence with each answer:

1. The villain swipes with a super claw, then makes a cosmic meow.
2. The villain bounces with a jetpack, then activates a star shield.
3. The villain swipes with a super claw, then dashes away at warp speed.
4. The villain bounces with a jetpack, then makes a cosmic meow.
5. The villain makes a loud astro purr, then activates a star shield.
6. The villain zaps with laser beam eyes, then makes a cosmic meow.
7. The villain makes a loud astro purr, then throws a bubble trap.
8. The villain floats in zero gravity, then makes a huge nebula jump.
9. The villain floats in zero gravity, then throws a bubble trap.
10. The villain swipes with a super claw, then throws a bubble trap.
11. The villain makes a loud astro purr, then makes a huge nebula jump.
12. The villain swipes with a super claw, then activates a star shield.

Answer Key

The Case of the Cosmic Cat Cruiser

Culprit: Loki

Astro Purr · Nebula Jump · Right-pawed · Silver Fur · Water Spray

Trail: Start 21 → Clue 1 16 → Clue 2 8 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE BANDIT DOES NOT USE A STAR SHIELD"

$64 + 32 = 96$ (T) · $44 + 26 = 70$ (R) · $41 + 50 = 91$ (U) · $48 + 36 = 84$ (A) · $48 + 30 = 78$ (E) · $58 + 24 = 82$ (B) · $29 + 38 = 67$ (L) · $11 + 12 = 23$ (H) · $23 + 9 = 32$ (D) · $27 + 27 = 54$ (N) · $14 + 23 = 37$ (S) · $16 + 6 = 22$ (O) · $37 + 29 = 66$ (I)

Clue 2 (Subtraction): "THE BANDIT USES ONLY THE RIGHT PAW"

$91 - 12 = 79$ (T) · $100 - 11 = 89$ (P) · $46 - 29 = 17$ (R) · $83 - 22 = 61$ (O) · $64 - 7 = 57$ (D) · $104 - 26 = 78$ (E) · $92 - 11 = 81$ (B) · $107 - 30 = 77$ (I) · $70 - 12 = 58$ (S) · $70 - 11 = 59$ (N) · $79 - 9 = 70$ (L) · $46 - 19 = 27$ (W) · $59 - 18 = 41$ (U) · $74 - 19 = 55$ (H) · $98 - 34 = 64$ (Y) · $103 - 20 = 83$ (G) · $88 - 16 = 72$ (A)

Clue 3 (Multiplication facts (1-12)): "A SPRAY OF WATER WILL STOP THE BANDIT"

$8 \times 1 = 8$ (A) · $9 \times 9 = 81$ (L) · $4 \times 4 = 16$ (N) · $9 \times 6 = 54$ (P) · $3 \times 7 = 21$ (I) · $1 \times 1 = 1$ (S) · $9 \times 4 = 36$ (E) · $3 \times 9 = 27$ (W) · $12 \times 12 = 144$ (Y) · $4 \times 8 = 32$ (D) · $5 \times 1 = 5$ (T) · $5 \times 4 = 20$ (O) · $5 \times 7 = 35$ (H) · $8 \times 8 = 64$ (B) · $1 \times 3 = 3$ (F) · $11 \times 10 = 110$ (R)

Clue 4 (Rounding): "WE FOUND SILVER FUR ON THE CHAIR"

Round 705 to the nearest hundred = 700 (W) · Round 794 to the nearest hundred = 800 (E) · Round 851 to the nearest hundred = 900 (F) · Round 612 to the nearest hundred = 600 (R) · Round 79 to the nearest ten = 80 (A) · Round 30 to the nearest ten = 30 (O) · Round 23 to the nearest ten = 20 (C) · Round 274 to the nearest hundred = 300 (L) · Round 60 to the nearest ten = 60 (H) · Round 52 to the nearest ten = 50 (S) · Round 189 to the nearest hundred = 200 (U) · Round 424 to the nearest hundred = 400 (N) · Round 452 to the nearest hundred = 500 (V) · Round 87 to the nearest ten = 90 (I) · Round 70 to the nearest ten = 70 (D) · Round 42 to the nearest ten = 40 (T)

Clue 5 (Missing addends): surviving statement is box 11 → Loki

$5 + \underline{\quad} = 13 = 8$ · $10 + \underline{\quad} = 20 = 10$ · $4 + \underline{\quad} = 8 = 4$ · $2 + \underline{\quad} = 9 = 7$ · $1 + \underline{\quad} = 7 = 6$ · $3 + \underline{\quad} = 6 = 3$ · $6 + \underline{\quad} = 8 = 2$ · $9 + \underline{\quad} = 21 = 12$ · $2 + \underline{\quad} = 3 = 1$ · $8 + \underline{\quad} = 13 = 5$ · $5 + \underline{\quad} = 14 = 9$