



Case of the Comet Crook

Grade 2 math · Place value, Addition, Subtraction, Skip counting, Missing addends · Reading level grades 1-2

Detective: _____ Date: _____

The Star Captain is gone! Someone snuck onto Star Hopper and grabbed her in the dark. You are the station's best space detective, and the clues are all over the deck.

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 Comet Crook 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	SNEAKY TRICK	CREW TYPE	GLOVE COLOR	HOW TO STOP IT
Pilot Orin	glows super bright	hides in the vents	human crew	red gloves	a bright flashlight
Jupiter Wen	shrinks down tiny	flips off the lights	robot crew	red gloves	a loud space horn
Polaris Gus	floats through walls	fakes the captain's voice	human crew	green gloves	a sticky net
Galaxy Sun	glows super bright	flips off the lights	robot crew	red gloves	a loud space horn
Solar Pip	glows super bright	pops open hatches	human crew	red gloves	a sticky net
Comet Ray	floats through walls	hides in the vents	human crew	red gloves	a sticky net
Zenith Roe	zooms on a jetpack	flips off the lights	robot crew	red gloves	a loud space horn
Meteor Lin	shrinks down tiny	fakes the captain's voice	human crew	red gloves	a sticky net
Pluto Max	blasts cold star wind	fakes the captain's voice	robot crew	red gloves	a loud space horn
Saturn Rey	blasts cold star wind	freezes the doors	robot crew	red gloves	a sticky net
Mars Tia	glows super bright	freezes the doors	robot crew	green gloves	a loud space horn
Nebula Fen	shrinks down tiny	flips off the lights	robot crew	green gloves	a bright flashlight
Lyra Bex	floats through walls	pops open hatches	robot crew	green gloves	a bright flashlight
Captain Vega	glows super bright	freezes the doors	human crew	red gloves	a sticky net
Orbit Tam	shrinks down tiny	fakes the captain's voice	robot crew	green gloves	a sticky net
Astra Quill	blasts cold star wind	hides in the vents	human crew	blue gloves	a sticky net
Atlas Cole	glows super bright	hides in the vents	robot crew	green gloves	a loud space horn
Luna Sky	glows super bright	fakes the captain's voice	robot crew	red gloves	a sticky net
Star Mio	shrinks down tiny	pops open hatches	robot crew	red gloves	a loud space horn
Astro Bel	floats through walls	freezes the doors	human crew	red gloves	a sticky net
Nova Pax	shrinks down tiny	freezes the doors	human crew	red gloves	a loud space horn

Place value (tens & ones)

You find a logbook open on the desk. The number by the crook's name has a tens digit and a ones digit, so you read the place value to learn what the crook cannot do.

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

Diagram illustrating the arrangement of boxes and numbers:

Row 1: [T, 36, 42, 51] [29, 26, 28, 28, 34, 26, 32] [96, 34, 32, 32, 38, T, 36] [80, 34, 63, 51]

Row 2: [T, 36, 42, 51] [96, 34, 50, T, 36, 34, 26, 32, 60] [29, 38, 26, 96, 51]

What number has 3 tens and 6 ones? → **T**

What number has 3 tens and 4 ones? → **A**

What number has 3 tens and 2 ones? → **N**

What number has 2 tens and 8 ones? → **L**

What number has 4 tens and 2 ones? → **H**

What number has 6 tens and 0 ones? → **S**

What number has 9 tens and 6 ones? → **C**

What number has 3 tens and 8 ones? →

What number has 8 tens and 0 ones? → **F**

What number has 2 tens and 6 ones? →

1

What number has 5 tens and 0 ones? → **P**

What number has 5 tens and 1 one? → **E**

What number has 2 tens and 9 ones? → **V**

What number has 6 tens and 3 ones? → **K**

Scratch space:

CLUE 2 **Addition**

You count the dropped tools in two piles. Add the piles to see how many the crew type left behind, and that tells you who was at the door.

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

A 65	93	74	51	74	34	38	93	63	82	82	A 65	26	26	63	63	97	51	77
34	68	63	25	74	74	93												

21 + 44 = → A	8 + 17 = → D	27 + 11 = → C
42 + 40 = → W	19 + 7 = → S	21 + 47 = → H
35 + 28 = → E	57 + 40 = → N	36 + 57 = → R
50 + 27 = → Y	41 + 33 = → O	14 + 20 = → T
21 + 30 = → B		

Scratch space:

CLUE 3

Subtraction

The flashlight battery started full and now shows less power. Subtract to see how much was used, and learn what made the crook run away.

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

A 75	17	25	39	43	53	88	A 75	55	29	44	25	89	66	56	A 75	43	29
28	33	89	39	66	A 75	57	A 75	87									

$96 - 21 = \square \rightarrow \boxed{\text{A}}$

$85 - 19 = \square \rightarrow \boxed{\text{N}}$

$120 - 32 = \square \rightarrow \boxed{\text{P}}$

$93 - 4 = \square \rightarrow \boxed{\text{R}}$

$67 - 24 = \square \rightarrow \boxed{\text{D}}$

$31 - 6 = \square \rightarrow \boxed{\text{O}}$

$45 - 28 = \square \rightarrow \boxed{\text{L}}$

$80 - 27 = \square \rightarrow \boxed{\text{S}}$

$63 - 7 = \square \rightarrow \boxed{\text{M}}$

$88 - 33 = \square \rightarrow \boxed{\text{C}}$

$65 - 37 = \square \rightarrow \boxed{\text{I}}$

$102 - 15 = \square \rightarrow \boxed{\text{Y}}$

$78 - 34 = \square \rightarrow \boxed{\text{H}}$

$47 - 8 = \square \rightarrow \boxed{\text{U}}$

$68 - 39 = \square \rightarrow \boxed{\text{E}}$

$89 - 32 = \square \rightarrow \boxed{\text{W}}$

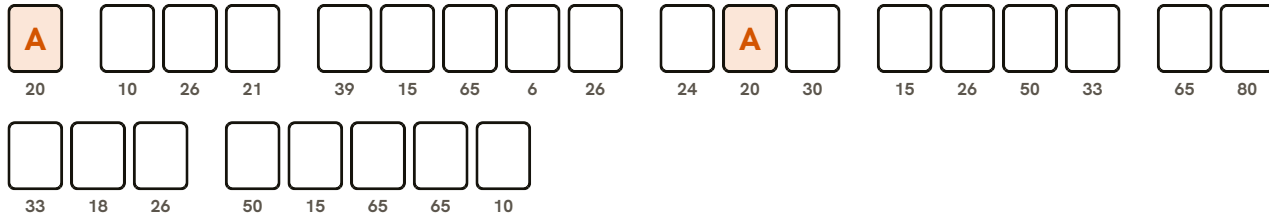
$39 - 6 = \square \rightarrow \boxed{\text{T}}$

Scratch space:

CLUE 4 Skip counting

Star tracks lead down the hall in even steps. Skip count the glowing footprints to find the glove color left at the scene.

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



Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, __, 22, 24 → **A**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, __, 90, 100 → **N**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, __, 24, 27 → **D**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, __, 36, 39 → **T**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, __, 42, 45 → **G**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, __, 28, 30 → **E**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, __, 60, 70 → **F**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, __, 26, 28 → **W**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, __, 12, 14 → **R**

Skip-count by 2s. Fill the blank: 2, 4, __, 8, 10 → **V**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, __, 21, 24 → **H**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, __, 18, 21 → **L**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 →

Skip-count by 10s. Fill the blank: 10, 20, __, 40, 50 →

Scratch space:

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

The space horn needs a set number of charges. Some are loaded, so find the missing charges to point at the real Comet Crook.

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:

$8 + \underline{\quad} = 15$

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

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

$1 + \underline{\quad} = 10$

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

$9 + \underline{\quad} = 15$

$6 + \underline{\quad} = 10$

$7 + \underline{\quad} = 9$

$2 + \underline{\quad} = 10$

$8 + \underline{\quad} = 11$

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

Step 2 - cross out the sentence with each answer:

1. The villain blasts cold star wind, then hides in the vents.
2. The villain zooms on a jetpack, then hides in the vents.
3. The villain shrinks down tiny, then fakes the captain's voice.
4. The villain zooms on a jetpack, then pops open hatches.
5. The villain zooms on a jetpack, then flips off the lights.
6. The villain floats through walls, then pops open hatches.
7. The villain glows super bright, then flips off the lights.
8. The villain floats through walls, then fakes the captain's voice.
9. The villain blasts cold star wind, then pops open hatches.
10. The villain glows super bright, then fakes the captain's voice.
11. The villain shrinks down tiny, then flips off the lights.
12. The villain shrinks down tiny, then pops open hatches.

Answer Key

Case of the Comet Crook

Culprit: Jupiter Wen

shrinks down tiny · flips off the lights · robot crew · red gloves · a loud space horn

Trail: Start 21 → Clue 1 16 → Clue 2 9 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Place value (tens & ones)): "THE VILLAIN CANNOT FAKE THE CAPTAINS VOICE"

What number has 3 tens and 6 ones? = 36 (T) · What number has 3 tens and 4 ones? = 34 (A) · What number has 3 tens and 2 ones? = 32 (N) · What number has 2 tens and 8 ones? = 28 (L) · What number has 4 tens and 2 ones? = 42 (H) · What number has 6 tens and 0 ones? = 60 (S) · What number has 9 tens and 6 ones? = 96 (C) · What number has 3 tens and 8 ones? = 38 (O) · What number has 8 tens and 0 ones? = 80 (F) · What number has 2 tens and 6 ones? = 26 (I) · What number has 5 tens and 0 ones? = 50 (P) · What number has 5 tens and 1 one? = 51 (E) · What number has 2 tens and 9 ones? = 29 (V) · What number has 6 tens and 3 ones? = 63 (K)

Clue 2 (Addition): "A ROBOT CREW WAS SEEN BY THE DOOR"

$21 + 44 = 65$ (A) · $8 + 17 = 25$ (D) · $27 + 11 = 38$ (C) · $42 + 40 = 82$ (W) · $19 + 7 = 26$ (S) · $21 + 47 = 68$ (H) · $35 + 28 = 63$ (E) · $57 + 40 = 97$ (N) · $36 + 57 = 93$ (R) · $50 + 27 = 77$ (Y) · $41 + 33 = 74$ (O) · $14 + 20 = 34$ (T) · $21 + 30 = 51$ (B)

Clue 3 (Subtraction): "A LOUD SPACE HORN MADE IT RUN AWAY"

$96 - 21 = 75$ (A) · $85 - 19 = 66$ (N) · $120 - 32 = 88$ (P) · $93 - 4 = 89$ (R) · $67 - 24 = 43$ (D) · $31 - 6 = 25$ (O) · $45 - 28 = 17$ (L) · $80 - 27 = 53$ (S) · $63 - 7 = 56$ (M) · $88 - 33 = 55$ (C) · $65 - 37 = 28$ (I) · $102 - 15 = 87$ (Y) · $78 - 34 = 44$ (H) · $47 - 8 = 39$ (U) · $68 - 39 = 29$ (E) · $89 - 32 = 57$ (W) · $39 - 6 = 33$ (T)

Clue 4 (Skip counting): "A RED GLOVE WAS LEFT ON THE FLOOR"

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, __, 22, 24 = 20 (A) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, __, 90, 100 = 80 (N) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, __, 24, 27 = 21 (D) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, __, 36, 39 = 33 (T) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, __, 42, 45 = 39 (G) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, __, 28, 30 = 26 (E) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, __, 60, 70 = 50 (F) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, __, 26, 28 = 24 (W) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, __, 12, 14 = 10 (R) · Skip-count by 2s. Fill the blank: 2, 4, __, 8, 10 = 6 (V) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, __, 21, 24 = 18 (H) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, __, 18, 21 = 15 (L) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 = 65 (O) · Skip-count by 10s. Fill the blank: 10, 20, __, 40, 50 = 30 (S)

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

$8 + \underline{\quad} = 15 = 7$ · $5 + \underline{\quad} = 17 = 12$ · $8 + \underline{\quad} = 13 = 5$ · $1 + \underline{\quad} = 10 = 9$ · $2 + \underline{\quad} = 3 = 1$ · $9 + \underline{\quad} = 15 = 6$ · $6 + \underline{\quad} = 10 = 4$ · $7 + \underline{\quad} = 9 = 2$ · $2 + \underline{\quad} = 10 = 8$ · $8 + \underline{\quad} = 11 = 3$ · $10 + \underline{\quad} = 20 = 10$