



The Case of the Comet Crook

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

Detective: _____ **Date:** _____

Someone snuck aboard Orbit-9 and zipped off with the Station Captain. The alarm bells are still ringing in the docking bay. It is up to you to scan the suspects and find the Comet Crook.

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	SHIP TRICK	SUIT TYPE	HELMET COLOR	WEAK SPOT
Mira Sky	freezes engines	jams radios	girl	blue helmet	bright flashlight
Echo Vance	walks through walls	fires tractor beams	girl	red helmet	bright flashlight
Comet Jo	freezes engines	warp jumps	girl	red helmet	bright flashlight
Cosmo Ray	controls gravity	warp jumps	boy	red helmet	loud buzzer
Vega Lee	reads minds	launches space drones	girl	red helmet	sticky foam
Pilot Zix	freezes engines	launches space drones	girl	red helmet	loud buzzer
Ceres Day	bends starlight	launches space drones	boy	blue helmet	sticky foam
Juno Hale	controls gravity	jams radios	boy	red helmet	bright flashlight
Aria Dust	controls gravity	cloaks the ship	girl	silver helmet	sticky foam
Rex Orbit	bends starlight	cloaks the ship	girl	silver helmet	loud buzzer
Luna Park	reads minds	cloaks the ship	girl	blue helmet	sticky foam
Astra Kim	controls gravity	launches space drones	girl	blue helmet	bright flashlight
Quark Lin	walks through walls	launches space drones	girl	red helmet	loud buzzer
Nebula Sue	reads minds	jams radios	girl	red helmet	loud buzzer
Rocket Dan	reads minds	jams radios	boy	silver helmet	sticky foam
Titan Bo	reads minds	cloaks the ship	girl	blue helmet	bright flashlight
Galen Tor	bends starlight	jams radios	boy	silver helmet	bright flashlight
Star Pip	reads minds	fires tractor beams	girl	red helmet	loud buzzer
Drift Cole	reads minds	fires tractor beams	girl	blue helmet	loud buzzer
Astro Mel	controls gravity	cloaks the ship	girl	red helmet	loud buzzer
Pluto Max	freezes engines	warp jumps	girl	silver helmet	loud buzzer

CLUE 1
Place value (tens & ones)

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

T																T
43	75	69	93	52	25	25	80	52	63	61	80	63	63	96	43	

					T							
61	25	96	80	94	43	75	69	54	75	52	40	

What number has 4 tens and 3 ones?

→ **T**

What number has 7 tens and 5 ones?

→ **H**

What number has 6 tens and 9 ones?

→ **E**

What number has 9 tens and 3 ones?

→ **V**

What number has 5 tens and 2 ones?

→ **I**

What number has 2 tens and 5 ones?

→ **L**

What number has 8 tens and 0 ones?

→ **A**

What number has 6 tens and 3 ones?

→ **N**

What number has 6 tens and 1 one?

→ **C**

What number has 9 tens and 6 ones?

→ **O**

What number has 9 tens and 4 ones?

→ **K**

What number has 5 tens and 4 ones?

→ **S**

What number has 4 tens and 0 ones?

→ **P**

Scratch space:

CLUE 2
Addition

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

A										A		A							
81	44	48	45	56	39	73	73	73	73	81	44	81	82	48	47	65	47	55	56
45	38	45	23	39	72	38	77												

$41 + 40 = \square \rightarrow \mathbf{A}$	$19 + 25 = \square \rightarrow \mathbf{W}$	$16 + 32 = \square \rightarrow \mathbf{I}$
$24 + 21 = \square \rightarrow \mathbf{T}$	$18 + 38 = \square \rightarrow \mathbf{N}$	$17 + 22 = \square \rightarrow \mathbf{E}$
$28 + 45 = \square \rightarrow \mathbf{S}$	$51 + 31 = \square \rightarrow \mathbf{G}$	$25 + 22 = \square \rightarrow \mathbf{R}$
$43 + 22 = \square \rightarrow \mathbf{L}$	$29 + 26 = \square \rightarrow \mathbf{U}$	$12 + 26 = \square \rightarrow \mathbf{O}$
$13 + 10 = \square \rightarrow \mathbf{H}$	$36 + 36 = \square \rightarrow \mathbf{P}$	$35 + 42 = \square \rightarrow \mathbf{D}$

Scratch space:

CLUE 3
Subtraction

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

T						T													T
55	65	20	74	53	34	55	53	56	26	89	74	53	22	20	51	56	55		
					T														
17	77	77	25	56	55	65	53	15	33	18	18	20	22						

93 - 38 = → T	85 - 20 = → H	28 - 8 = → E
100 - 26 = → C	54 - 1 = → A	70 - 36 = → P
94 - 38 = → I	38 - 12 = → N	127 - 38 = → S
59 - 37 = → R	63 - 12 = → D	20 - 3 = → O
85 - 8 = → F	26 - 1 = → W	35 - 20 = → B
59 - 26 = → U	28 - 10 = → Z	

Scratch space:

CLUE 4

Multiplication facts (1-12)

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

A																A	
81	88	132	64	21	132	28	84	132	3	44	21	72	8	10	81	60	
28	132	77	3	24	40	3	21	132	64	121	121	88					

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

$11 \times 8 = \square \rightarrow \text{R}$

$11 \times 12 = \square \rightarrow \text{E}$

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

$3 \times 7 = \square \rightarrow \text{H}$

$7 \times 4 = \square \rightarrow \text{L}$

$7 \times 12 = \square \rightarrow \text{M}$

$3 \times 1 = \square \rightarrow \text{T}$

$4 \times 11 = \square \rightarrow \text{C}$

$8 \times 9 = \square \rightarrow \text{I}$

$4 \times 2 = \square \rightarrow \text{P}$

$1 \times 10 = \square \rightarrow \text{W}$

$10 \times 6 = \square \rightarrow \text{S}$

$7 \times 11 = \square \rightarrow \text{F}$

$3 \times 8 = \square \rightarrow \text{B}$

$5 \times 8 = \square \rightarrow \text{Y}$

$11 \times 11 = \square \rightarrow \text{O}$

Scratch space:

CLUE 5**Division facts (1-12) - 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:

$10 \div 10 = \boxed{}$

$48 \div 4 = \boxed{}$

$50 \div 5 = \boxed{}$

$35 \div 7 = \boxed{}$

$42 \div 6 = \boxed{}$

$10 \div 5 = \boxed{}$

$48 \div 8 = \boxed{}$

$36 \div 4 = \boxed{}$

$48 \div 6 = \boxed{}$

$33 \div 3 = \boxed{}$

$44 \div 11 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain reads the crew minds, then jams every radio.
2. The villain walks right through walls, then cloaks the getaway ship.
3. The villain walks right through walls, then launches a swarm of drones.
4. The villain controls the gravity, then jams every radio.
5. The villain bends starlight to hide, then warp jumps away fast.
6. The villain controls the gravity, then grabs pods with tractor beams.
7. The villain reads the crew minds, then cloaks the getaway ship.
8. The villain walks right through walls, then warp jumps away fast.
9. The villain freezes the engines cold, then warp jumps away fast.
10. The villain freezes the engines cold, then launches a swarm of drones.
11. The villain controls the gravity, then warp jumps away fast.
12. The villain reads the crew minds, then grabs pods with tractor beams.

Answer Key

The Case of the Comet Crook

Culprit: Quark Lin

walks through walls · launches space drones · girl · red helmet · loud buzzer

Trail: Start 21 → Clue 1 16 → Clue 2 11 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Place value (tens & ones)): "THE VILLAIN CANNOT CLOAK THE SHIP"

What number has 4 tens and 3 ones? = 43 (T) · What number has 7 tens and 5 ones? = 75 (H) · What number has 6 tens and 9 ones? = 69 (E) · What number has 9 tens and 3 ones? = 93 (V) · What number has 5 tens and 2 ones? = 52 (I) · What number has 2 tens and 5 ones? = 25 (L) · What number has 8 tens and 0 ones? = 80 (A) · What number has 6 tens and 3 ones? = 63 (N) · What number has 6 tens and 1 one? = 61 (C) · What number has 9 tens and 6 ones? = 96 (O) · What number has 9 tens and 4 ones? = 94 (K) · What number has 5 tens and 4 ones? = 54 (S) · What number has 4 tens and 0 ones? = 40 (P)

Clue 2 (Addition): "A WITNESS SAW A GIRL RUN TO THE POD"

$41 + 40 = 81$ (A) · $19 + 25 = 44$ (W) · $16 + 32 = 48$ (I) · $24 + 21 = 45$ (T) · $18 + 38 = 56$ (N) · $17 + 22 = 39$ (E) · $28 + 45 = 73$ (S) · $51 + 31 = 82$ (G) · $25 + 22 = 47$ (R) · $43 + 22 = 65$ (L) · $29 + 26 = 55$ (U) · $12 + 26 = 38$ (O) · $13 + 10 = 23$ (H) · $36 + 36 = 72$ (P) · $35 + 42 = 77$ (D)

Clue 3 (Subtraction): "THE CAPTAIN SCARED IT OFF WITH A BUZZER"

$93 - 38 = 55$ (T) · $85 - 20 = 65$ (H) · $28 - 8 = 20$ (E) · $100 - 26 = 74$ (C) · $54 - 1 = 53$ (A) · $70 - 36 = 34$ (P) · $94 - 38 = 56$ (I) · $38 - 12 = 26$ (N) · $127 - 38 = 89$ (S) · $59 - 37 = 22$ (R) · $63 - 12 = 51$ (D) · $20 - 3 = 17$ (O) · $85 - 8 = 77$ (F) · $26 - 1 = 25$ (W) · $35 - 20 = 15$ (B) · $59 - 26 = 33$ (U) · $28 - 10 = 18$ (Z)

Clue 4 (Multiplication facts (1-12)): "A RED HELMET CHIP WAS LEFT BY THE DOOR"

$9 \times 9 = 81$ (A) · $11 \times 8 = 88$ (R) · $11 \times 12 = 132$ (E) · $8 \times 8 = 64$ (D) · $3 \times 7 = 21$ (H) · $7 \times 4 = 28$ (L) · $7 \times 12 = 84$ (M) · $3 \times 1 = 3$ (T) · $4 \times 11 = 44$ (C) · $8 \times 9 = 72$ (I) · $4 \times 2 = 8$ (P) · $1 \times 10 = 10$ (W) · $10 \times 6 = 60$ (S) · $7 \times 11 = 77$ (F) · $3 \times 8 = 24$ (B) · $5 \times 8 = 40$ (Y) · $11 \times 11 = 121$ (O)

Clue 5 (Division facts (1-12)): surviving statement is box 3 → Quark Lin

$10 \div 10 = 1$ · $48 \div 4 = 12$ · $50 \div 5 = 10$ · $35 \div 7 = 5$ · $42 \div 6 = 7$ · $10 \div 5 = 2$ · $48 \div 8 = 6$ · $36 \div 4 = 9$ · $48 \div 6 = 8$ · $33 \div 3 = 11$ · $44 \div 11 = 4$