



The Search for Praneesh

Grade 3 math · Place value, Multiplication, Rounding, Word problems, Division · Reading level grades 5-6

Detective: _____ **Date:** _____

Praneesh vanished right before the regional robotics championship! Decode the lab security logs and analyze physical evidence to unmask the rogue hacker behind his disappearance.

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 Rogue Hacker is _____

Possible suspects

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

NAME	CYBER ABILITY	SPECIALIZED GEAR	TYPING STYLE	HAIRSTYLE	DEFENSE FLAW
Nico	Cyber EMP Surge	Stealth Camouflage	Left Handed Typing	Silver Braids	Water Blasters
Quinn	Laser Grid Jamming	Grappling Cables	Left Handed Typing	Silver Braids	Loud Whistles
Zoe	Laser Grid Jamming	Thermal Vision Cloak	Left Handed Typing	Neon Green Spikes	Water Blasters
Fiona	Hologram Spoofing	Thermal Vision Cloak	Right Handed Typing	Electric Blue Crewcut	Water Blasters
Leo	Hologram Spoofing	Thermal Vision Cloak	Left Handed Typing	Neon Green Spikes	Loud Whistles
Caleb	Sonic Frequency Override	Thermal Vision Cloak	Right Handed Typing	Electric Blue Crewcut	Loud Whistles
Gavin	Cyber EMP Surge	Magnetic Shielding	Right Handed Typing	Electric Blue Crewcut	Water Blasters
Hannah	Cyber EMP Surge	Thermal Vision Cloak	Right Handed Typing	Silver Braids	Water Blasters
Dakota	Dronenet Control	Magnetic Shielding	Left Handed Typing	Electric Blue Crewcut	Loud Whistles
Olivia	Sonic Frequency Override	Grappling Cables	Right Handed Typing	Neon Green Spikes	Loud Whistles
Vera	Cyber EMP Surge	Overclocked Thrusters	Right Handed Typing	Neon Green Spikes	Water Blasters
Brooke	Cyber EMP Surge	Thermal Vision Cloak	Right Handed Typing	Electric Blue Crewcut	Loud Whistles
Sam	Laser Grid Jamming	Overclocked Thrusters	Right Handed Typing	Silver Braids	Bright Flashlights
Ian	Cyber EMP Surge	Magnetic Shielding	Right Handed Typing	Electric Blue Crewcut	Loud Whistles
Maya	Dronenet Control	Stealth Camouflage	Left Handed Typing	Neon Green Spikes	Water Blasters
Alex	Sonic Frequency Override	Stealth Camouflage	Right Handed Typing	Electric Blue Crewcut	Loud Whistles
Ethan	Cyber EMP Surge	Stealth Camouflage	Left Handed Typing	Silver Braids	Bright Flashlights
Riley	Dronenet Control	Stealth Camouflage	Right Handed Typing	Neon Green Spikes	Bright Flashlights
Jade	Dronenet Control	Overclocked Thrusters	Right Handed Typing	Neon Green Spikes	Loud Whistles
Kai	Laser Grid Jamming	Stealth Camouflage	Right Handed Typing	Electric Blue Crewcut	Loud Whistles
Parker	Hologram Spoofing	Overclocked Thrusters	Right Handed Typing	Electric Blue Crewcut	Loud Whistles

CLUE 1

You inspect the security terminal digit registry to reveal the first hidden detail about the suspect gear.

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

Diagram illustrating the multiplication of 600 by 9000, 50, 700, 300, 4000, 4000, 70, 300, 60, 200, 90, 50, 8000, 60, 90, and 600. The boxes are arranged in three rows, with the first row having 17 boxes, the second row having 16 boxes, and the third row having 5 boxes. The boxes are labeled with numbers, and some boxes are highlighted in orange.

What is the value of the 6 in 679? → **T**

What is the value of the 6 in 5,161? → **N**

What is the value of the 4 in 1,740? → **M**

What is the value of the 2 in 2,980? → **K**

What is the value of the 7 in 970? → **A**

What is the value of the 8 in 28,091? → **S**

What is the value of the 9 in 6,893? → ☐

What is the value of the 5 in 352? → **E**

What is the value of the 3 in 83,970? → **C**

What is the value of the 6 in 26,020? → **U**

What is the value of the 7 in 721? → **V**

What is the value of the 2 in 205? → **D**

What is the value of the 4 in 4,131? → **L**

What is the value of the 3 in 386? →

What is the value of the 9 in 39,117? → **H**

What is the value of the 9 in 7,973? → **R**

Scratch space:

CLUE 2

Multiplication facts (1-12)

By multiplying the server grid rows by their chip capacity you unlock the suspect physical tell.

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

K																
54	56	15	40	16	10	16	77	77	56	4	4	4	49	108	45	4
88	81	36	49	50	49	16	2	10	56	10	50	15	40	81	2	36

$6 \times 9 = \square \rightarrow \text{K}$

$5 \times 10 = \square \rightarrow \text{T}$

$2 \times 2 = \square \rightarrow \text{S}$

$8 \times 2 = \square \rightarrow \text{A}$

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

$5 \times 3 = \square \rightarrow \text{Y}$

$9 \times 4 = \square \rightarrow \text{G}$

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

$9 \times 12 = \square \rightarrow \text{O}$

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

$1 \times 2 = \square \rightarrow \text{N}$

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

$5 \times 9 = \square \rightarrow \text{W}$

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

$7 \times 8 = \square \rightarrow \text{E}$

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

Scratch space:

CLUE 3 Rounding

The sensor array scanner rounds its energy pulse output to pinpoint the suspect defense weakness.

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

D					D						D				D
200	9000	300	9000	500	200	9000	700	600	3000	9000	200	50	80	600	200
7000	40	70	3000	20	50	9000	3000	20	80	9000	3000	800	5000	2000	9000

Round 228 to the nearest hundred → **D**

Round 8,915 to the nearest thousand → **E**

Round 82 to the nearest ten → **O**

Round 468 to the nearest hundred → **N**

Round 336 to the nearest hundred → **F**

Round 19 to the nearest ten → **T**

Round 6,819 to the nearest thousand → **W**

Round 676 to the nearest hundred → **R**

Round 4,821 to the nearest thousand → **A**

Round 69 to the nearest ten → **I**

Round 647 to the nearest hundred → **U**

Round 2,022 to the nearest thousand → **P**

Round 39 to the nearest ten → **H**

Round 2,971 to the nearest thousand → **S**

Round 54 to the nearest ten → **L**

Round 821 to the nearest hundred → **C**

Scratch space:

CLUE 4

Word problems

You solve the lab inventory log to decode the hair strand evidence collected near Praneesh desk.

Solve each problem, then write its letter in the boxes to fill in the missing word.

A strand of

E		E								U	E			E	W		U	
23	25	23	19	76	55	29	19	79	25		23	19	55	23		19		76

 hair

turned up at the scene.

There were 59 data drives. 36 were used up. How many data drives are left?

Answer: → **E**

There were 68 laser sensors. 13 were used up. How many laser sensors are left?

Answer: → **R**

Tech Cadet found 23 microchips yesterday and 6 more today. How many microchips in all?

Answer: → **I**

There were 119 circuit boards. 40 were used up. How many circuit boards are left?

Answer: → **B**

There were 109 code modules. 33 were used up. How many code modules are left?

Answer: → **T**

There were 48 laser sensors. 23 were used up. How many laser sensors are left?

Answer: → **L**

Tech Cadet found 7 microchips yesterday and 12 more today. How many microchips in all?

Answer: → **C**

Scratch space:

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

Dividing the encrypted memory blocks equally across the mainframe exposes the villain final identity.

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:

$70 \div 7 = \boxed{}$

$24 \div 8 = \boxed{}$

$48 \div 4 = \boxed{}$

$9 \div 9 = \boxed{}$

$45 \div 9 = \boxed{}$

$40 \div 5 = \boxed{}$

$11 \div 1 = \boxed{}$

$40 \div 10 = \boxed{}$

$108 \div 12 = \boxed{}$

$54 \div 9 = \boxed{}$

$6 \div 3 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain overrode the sonic frequencies, then engaged a thermal vision cloak.
2. The villain took over the dronenet, then deployed magnetic shielding.
3. The villain overrode the sonic frequencies, then activated stealth camouflage.
4. The villain jammed the laser grid, then engaged a thermal vision cloak.
5. The villain triggered a cyber emp surge, then engaged a thermal vision cloak.
6. The villain took over the dronenet, then latched grappling cables.
7. The villain triggered a cyber emp surge, then deployed magnetic shielding.
8. The villain spoofed the holograms, then deployed magnetic shielding.
9. The villain overrode the sonic frequencies, then deployed magnetic shielding.
10. The villain spoofed the holograms, then fired overclocked thrusters.
11. The villain jammed the laser grid, then deployed magnetic shielding.
12. The villain jammed the laser grid, then activated stealth camouflage.

Answer Key

The Search for Praneesh

Culprit: Ian

Cyber EMP Surge · Magnetic Shielding · Right Handed Typing · Electric Blue Crewcut · Loud Whistles

Trail: Start 21 → Clue 1 15 → Clue 2 10 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE VILLAIN DOES NOT USE THERMAL VISION CLOAK"

What is the value of the 6 in 679? = 600 (T) · What is the value of the 6 in 5,161? = 60 (N) · What is the value of the 4 in 1,740? = 40 (M) · What is the value of the 2 in 2,980? = 2000 (K) · What is the value of the 7 in 970? = 70 (A) · What is the value of the 8 in 28,091? = 8000 (S) · What is the value of the 9 in 6,893? = 90 (O) · What is the value of the 5 in 352? = 50 (E) · What is the value of the 3 in 83,970? = 3000 (C) · What is the value of the 6 in 26,020? = 6000 (U) · What is the value of the 7 in 721? = 700 (V) · What is the value of the 2 in 205? = 200 (D) · What is the value of the 4 in 4,131? = 4000 (L) · What is the value of the 3 in 386? = 300 (I) · What is the value of the 9 in 39,117? = 9000 (H) · What is the value of the 9 in 7,973? = 900 (R)

Clue 2 (Multiplication facts (1-12)): "KEYPAD ACCESS SHOWS RIGHT HANDED TYPING"

$6 \times 9 = 54$ (K) · $5 \times 10 = 50$ (T) · $2 \times 2 = 4$ (S) · $8 \times 2 = 16$ (A) · $9 \times 9 = 81$ (I) · $5 \times 3 = 15$ (Y) · $9 \times 4 = 36$ (G) · $8 \times 5 = 40$ (P) · $9 \times 12 = 108$ (O) · $10 \times 1 = 10$ (D) · $1 \times 2 = 2$ (N) · $7 \times 7 = 49$ (H) · $5 \times 9 = 45$ (W) · $11 \times 8 = 88$ (R) · $7 \times 8 = 56$ (E) · $11 \times 7 = 77$ (C)

Clue 3 (Rounding): "DEFENDER USED LOUD WHISTLES TO ESCAPE"

Round 228 to the nearest hundred = 200 (D) · Round 8,915 to the nearest thousand = 9000 (E) · Round 82 to the nearest ten = 80 (O) · Round 468 to the nearest hundred = 500 (N) · Round 336 to the nearest hundred = 300 (F) · Round 19 to the nearest ten = 20 (T) · Round 6,819 to the nearest thousand = 7000 (W) · Round 676 to the nearest hundred = 700 (R) · Round 4,821 to the nearest thousand = 5000 (A) · Round 69 to the nearest ten = 70 (I) · Round 647 to the nearest hundred = 600 (U) · Round 2,022 to the nearest thousand = 2000 (P) · Round 39 to the nearest ten = 40 (H) · Round 2,971 to the nearest thousand = 3000 (S) · Round 54 to the nearest ten = 50 (L) · Round 821 to the nearest hundred = 800 (C)

Clue 4 (Word problems): "ELECTRIC BLUE CREWCUT"

There were 59 data drives. 36 were used up. How many data drives are left? = 23 (E) · There were 68 laser sensors. 13 were used up. How many laser sensors are left? = 55 (R) · Tech Cadet found 23 microchips yesterday and 6 more today. How many microchips in all? = 29 (I) · There were 119 circuit boards. 40 were used up. How many circuit boards are left? = 79 (B) · There were 109 code modules. 33 were used up. How many code modules are left? = 76 (T) · There were 48 laser sensors. 23 were used up. How many laser sensors are left? = 25 (L) · Tech Cadet found 7 microchips yesterday and 12 more today. How many microchips in all? = 19 (C)

Clue 5 (Division facts (1-12)): surviving statement is box 7 → Ian

$70 \div 7 = 10$ · $24 \div 8 = 3$ · $48 \div 4 = 12$ · $9 \div 9 = 1$ · $45 \div 9 = 5$ · $40 \div 5 = 8$ · $11 \div 1 = 11$ · $40 \div 10 = 4$ · $108 \div 12 = 9$ · $54 \div 9 = 6$ · $6 \div 3 = 2$