

## Deduction Mysteries

### CASE 01

A genealogy register was taken from the storage basement of Pemberton Genealogy Center between 01:45 and 03:00. The operation required specific qualifications and access. 6 suspects: Amelia (records administrator), Leila (security officer), Zara (head archivist), Amari (volunteer), Quincy (conservation specialist), Wilder (genealogist).

#### Q Who took the genealogy register?

1. Leila lacks the required professional certification – confirmed by personnel records.
2. Wilder stated they left the building at 23:00, but the parking-lot camera shows their archive badge active at 01:45.
3. Amelia's witness patron shows continuous presence in a separate building.
4. Quincy's admin code was revoked two weeks prior; archived access list confirms.
5. Wilder has all three required qualifications.
6. Three independent requirements: professional certification, admin code access, and presence at the storage basement during the 01:45-03:00 window.
7. Zara's admin code was revoked two weeks prior; archived access list confirms.
8. A trace at the scene – a stamped seal serial number from a controlled supply closet – matches inventory accessible only to Wilder.
9. The theft required a stamped seal serial number from a controlled supply closet.
- 10 Leila was seen near the vault earlier that evening, but they had left the building by 20:20 . and never returned.
- 11 Amari was at a documented hospital appointment during the window – verified by reading-room . sign-in.

### CASE 02

The student transcripts were taken from the records office of Saint-Clair School between 02:30 and 04:15. The operation required specific qualifications and access. 7 suspects: Kasimir (coach), Ula (janitor), Nizar (teacher), Caelan (secretary), Emiko (department head), Kai (librarian), Sami (substitute teacher).

#### Q Who took the student transcripts?

1. Ula had the qualifications but family was visiting during the window – third-party verified.
2. Kai stated they left the building at 23:50, but the badge access record shows their combination active at 02:30.
3. The theft required a digital certificate issued only to senior staff.
4. Nizar was at a documented hospital appointment during the window – verified by keycard log.
5. Kai has all three required qualifications.
6. Sami had the qualifications but was hospitalized during the window – third-party verified.
7. A trace at the scene – a digital certificate issued only to senior staff – matches inventory accessible only to Kai.
8. Emiko was at a documented training during the window – verified by door sensor.
9. Kasimir's keycard log shows continuous presence in a separate building.
- 10 Nizar was seen near the staff bathroom earlier that evening, but they had left the building by . 20:15 and never returned.
- 11 Three independent requirements: professional certification, staff key access, and presence at . the records office during the 02:30-04:15 window.
- 12 Caelan's keycard log shows continuous presence in a separate building.

## Deduction Mysteries

### CASE 03

A client contract data was extracted from the SOC operations center of Northgate Systems between 02:45 and 04:45. The operation required specific qualifications and access. 6 suspects: Noor (intern), Aurora (data scientist), Lior (contractor), Zara (support lead), Marisol (site-reliability engineer), Tess (DevOps lead).

#### Q Who extracted the client contract data?

1. Zara was seen near the engineer pod earlier that evening, but they had left the building by 20:00 and never returned.
2. Marisol has all three required qualifications.
3. Noor's admin token was revoked two weeks prior; archived access list confirms.
4. Tess lacks the required professional certification – confirmed by personnel records.
5. A trace at the scene – a specific paint formulation only stocked in the restoration lab – matches inventory accessible only to Marisol.
6. Aurora lacks the required professional certification – confirmed by personnel records.
7. The data theft required a specific paint formulation only stocked in the restoration lab.
8. Three independent requirements: professional certification, admin token access, and presence at the SOC operations center during the 02:45–04:45 window.
9. Marisol stated they left the building at 23:00, but the badge access record shows their SSH key active at 02:45.
- 10 Lior lacks the required professional certification – confirmed by personnel records.

11 Zara lacks the required professional certification – confirmed by personnel records.

A) Aurora	B) Lior	C) Marisol	D) Tess	E) Zara	F) Noor
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### CASE 04

A glass vase was taken from the second-floor gallery of Pemberton Wing between 02:45 and 04:00. The operation required specific qualifications and access. 6 suspects: Kalinda (night security), Mira (art restorer), Alejandro (exhibition designer), Emiko (security guard), Kiran (archivist), Lana (janitor).

#### Q Who took the glass vase?

1. Alejandro's door sensor shows continuous presence in a separate building.
2. Lana's witness testimony shows continuous presence in a separate building.
3. Mira's witness testimony shows continuous presence in a separate building.
4. Three independent requirements: professional expertise, elevator access access, and presence at the second-floor gallery during the 02:45–04:00 window.
5. Kiran was at a documented hospital appointment during the window – verified by security camera.
6. The theft required a specific paint formulation only stocked in the restoration lab.
7. Kalinda's door sensor shows continuous presence in a separate building.
8. Emiko has all three required qualifications.
9. Mira was seen near the restoration lab earlier that evening, but they had left the building by 20:10 and never returned.
- 10 A trace at the scene – a specific paint formulation only stocked in the restoration lab – matches inventory accessible only to Emiko.
- 11 Emiko stated they left the building at 23:55, but the door sensor history shows their vault combination active at 02:45.

## Deduction Mysteries

### CASE 05

A specialized welding kit was taken from the welding bay of Saint-Clair Machining between 00:15 and 02:30. The operation required specific qualifications and access. 6 suspects: Elspeth (shop manager), Quentin (painter), Mira (customer service rep), Tarek (apprentice), Tatum (master mechanic), Ulla (parts clerk).

#### Q Who took the specialized welding kit?

1. The theft required a unique encryption signature traceable to internal-only training.
2. Mira's tool-crib key was revoked two weeks prior; archived access list confirms.
3. Elspeth had the qualifications but was on a flight during the window – third-party verified.
4. Quentin stated they left the building at 23:10, but the elevator log shows their parts-room code active at 00:15.
5. Tarek's time-clock log shows continuous presence in a separate building.
6. Three independent requirements: professional certification, tool-crib key access, and presence at the welding bay during the 00:15–02:30 window.
7. Quentin has all three required qualifications.
8. Ulla's tool-crib key was revoked two weeks prior; archived access list confirms.
9. Tatum had the qualifications but was on a flight during the window – third-party verified.
- 10 A trace at the scene – a unique encryption signature traceable to internal-only training – matches inventory accessible only to Quentin.
- 11 Tarek was seen near the main shop floor earlier that evening, but they had left the building

. by 21:25 and	never returned.				
A) Tatum	B) Tarek	C) Mira	D) Ulla	E) Elspeth	F) Quentin

### CASE 06

A sample vial was swapped from the prep bench of Aldermarsh Laboratory between 00:45 and 02:15. The operation required specific qualifications and access. 7 suspects: Kai (visiting scientist), Arjun (graduate student), Jian (equipment manager), Alessio (undergraduate volunteer), Nadia (principal investigator), Eleni (lab technician), Tarek (operations manager).

#### Q Who swapped the sample vial?

1. Nadia was at a documented training during the window – verified by clean-room entry log.
2. Arjun has all three required qualifications.
3. Arjun stated they left the building at 22:00, but the DHCP server log shows their lab badge active at 00:45.
4. Three independent requirements: professional training, biohazard clearance access, and presence at the prep bench during the 00:45–02:15 window.
5. The sample tampering required a digital certificate issued only to senior staff.
6. A trace at the scene – a digital certificate issued only to senior staff – matches inventory accessible only to Arjun.
7. Tarek's sample log shows continuous presence in a separate building.
8. Kai was seen near the sequencing room earlier that evening, but they had left the building by 20:40 and never returned.
9. Jian was at a documented training during the window – verified by equipment timestamp.
- 10 Eleni had the qualifications but family was visiting during the window – third-party verified.
- 11 Alessio was at a documented hospital appointment during the window – verified by sample log.

## Answer Key – Deduction Mysteries

Solve before peeking. Correct suspect and key reasoning steps below.

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### Case 01 F) Wilder

- ☑ Three requirements (professional certification, admin code, presence at the storage basement during the 01:45-03:00 window) plus a technical trace narrow this case.
  - ☑ Amelia eliminated by alibi or missing qualification.
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### Case 02 C) Kai

- ☑ Three requirements (professional certification, staff key, presence at the records office during the 02:30-04:15 window) plus a technical trace narrow this case.
  - ☑ Kasimir eliminated by alibi or missing qualification.
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### Case 03 C) Marisol

- ☑ Three requirements (professional certification, admin token, presence at the SOC operations center during the 02:45-04:45 window) plus a technical trace narrow this case.
  - ☑ Noor eliminated by alibi or missing qualification.
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### Case 04 C) Emiko

- ☑ Three requirements (professional expertise, elevator access, presence at the second-floor gallery during the 02:45-04:00 window) plus a technical trace narrow this case.
  - ☑ Kalinda eliminated by alibi or missing qualification.
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### Case 05 F) Quentin

- ☑ Three requirements (professional certification, tool-crib key, presence at the welding bay during the 00:15-02:30 window) plus a technical trace narrow this case.
  - ☑ Elspeth eliminated by alibi or missing qualification.
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### Case 06 F) Arjun

- ☑ Three requirements (professional training, biohazard clearance, presence at the prep bench during the 00:45-02:15 window) plus a technical trace narrow this case.
- ☑ Kai eliminated by alibi or missing qualification.