

## Deduction Mysteries

### CASE 01

A genealogy register was taken from the cataloging room of Northgate Estate Archive during the overnight window between 00:00 and 04:15. The operation required specific qualifications, access, and timing. 8 suspects are under investigation: Xanthe (intern), Jacinta (conservation specialist), Aiko (genealogist), Xiomara (administrator), Polina (head archivist), Mahdi (volunteer), Tarek (records administrator), Lucia (researcher). Several have strong-looking motives.

#### Q Who took the genealogy register?

1. However: Lucia is cleared – but reading-room sign-in places them at the hospital with a family emergency during the entire window.
2. Aiko has all four requirements: specialized engineering certification, clean-room or vault clearance, authorization to handle the item, and meets the temporal requirement (presence between 00:00 and 04:15).
3. But: however the unsecured service entrance doesn't require a badge to re-enter.
4. Tarek lacks specialized engineering certification – confirmed by personnel records.
5. The theft involved an encryption signature tied to the internal training network.
6. Four independent requirements: specialized engineering certification, clean-room or vault clearance, presence between 00:00 and 04:15, and authorization to handle the item.
7. Polina has only specialized engineering certification of the four requirements.
8. The trace at the scene (an encryption signature tied to the internal training network) ties directly to inventory or systems uniquely accessible to Aiko.
9. Xiomara has authorization to handle the item and clean-room or vault clearance – initial suspicion was high.
- 10 Lucia had financial pressure – appears to have motive.

### CASE 02

A sealed parts shipment was taken from the welding bay of Northgate Workshop during the overnight window between 00:30 and 04:30. The operation required specific qualifications, access, and timing. 7 suspects are under investigation: Bao (apprentice), Dimitri (customer service rep), Fenella (parts clerk), Yvonne (machinist), Jacinta (welder), Nadia (shop manager), Tatum (electrician). Several have strong-looking motives.

#### Q Who took the sealed parts shipment?

1. The theft involved an encryption signature tied to the internal training network.
2. Nadia lacks specialized engineering certification – confirmed by personnel records.
3. Fenella's witness coworker shows them off-site the entire window.
4. Bao had financial pressure – appears to have motive.
5. However: Bao is cleared – but two independent witnesses confirm a video call with them throughout the window.
6. Yvonne clashed publicly with management – appears to have motive.
7. Dimitri lacks specialized engineering certification – confirmed by personnel records.
8. But: however the unsecured service entrance doesn't require a badge to re-enter.
9. Yvonne has after-hours building access and specialized engineering certification and knowledge of the seal serial pattern – initial suspicion was high.
- 10 The trace at the scene (an encryption signature tied to the internal training network) ties directly to inventory or systems uniquely accessible to Jacinta.
- 11 However: Yvonne is cleared – but witness coworker places them at the hospital with a family emergency during the entire window.
- 12 Four independent requirements: specialized engineering certification, after-hours building access, presence between 00:30 and 04:30, and knowledge of the seal serial pattern.

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### CASE 03

A sequencing chip was swapped from the sequencing room of Coriolis Institute during the overnight window between 01:00 and 05:00. The operation required specific qualifications, access, and timing. 8 suspects are under investigation: Alejandro (visiting scientist), Phaedra (undergraduate volunteer), Ines (operations manager), Aaliyah (clinical coordinator), Alessio (graduate student), Helena (lab technician), Bao (equipment manager), Nikolai (principal investigator). Several have strong-looking motives.

#### Q Who swapped the sequencing chip?

1. The sample tampering involved a foam replica skillfully painted with restoration-grade spray paint.
2. However: Bao is cleared – but they were on a documented overnight flight, verified by airline records.
3. Nikolai lacks clearance to the restricted archive – confirmed by personnel records.
4. However: Alessio is cleared – but sample log places them at the hospital with a family emergency during the entire window.
5. Four independent requirements: clearance to the restricted archive, documented hands-on history with the item, presence between 01:00 and 05:00, and familiarity with the security routing.
6. Bao was passed over for a recent promotion – appears to have motive.
7. The trace at the scene (a foam replica skillfully painted with restoration-grade spray paint) ties directly to inventory or systems uniquely accessible to Ines.
8. Ines has all four requirements: clearance to the restricted archive, documented hands-on history with the item, familiarity with the security routing, and meets the temporal requirement (presence between 01:00 and 05:00).
9. Helena clashed publicly with management – appears to have motive.
- 10 Initial assumption pointed to Bao because of public friction with management, but this has been independently ruled out.

### CASE 04

A locker key was taken from the sports equipment room of Brierfield Prep during the overnight window between 01:30 and 05:15. The operation required specific qualifications, access, and timing. 7 suspects are under investigation: Daphne (student council president), Zara (teacher), Zephyr (janitor), Phaedra (department head), Theo (coach), Yvonne (substitute teacher), Selene (secretary). Several have strong-looking motives.

#### Q Who took the locker key?

1. Yvonne lacks specialized engineering certification – confirmed by personnel records.
2. Daphne clashed publicly with management – appears to have motive.
3. Initial assumption pointed to Daphne because of public friction with management, but this has been independently ruled out.
4. Phaedra their video call ended at 22:55 according to the system.
5. Daphne has specialized engineering certification and knowledge of the seal serial pattern and clean-room or vault clearance – initial suspicion was high.
6. Phaedra has all four requirements: specialized engineering certification, clean-room or vault clearance, knowledge of the seal serial pattern, and meets the temporal requirement (presence between 01:30 and 05:15).
7. The trace at the scene (a network certificate signed by senior staff) ties directly to inventory or systems uniquely accessible to Phaedra.
8. Selene has knowledge of the seal serial pattern and clean-room or vault clearance – initial suspicion was high.
9. Selene filed a grievance two weeks ago – appears to have motive.
- 10 But: however the VPN session record shows their vehicle remained in the lot until well after 01:30.

## Deduction Mysteries

### CASE 05

A signed treaty was taken from the staff break room of City Records Office during the overnight window between 00:15 and 04:45. The operation required specific qualifications, access, and timing. 7 suspects are under investigation: Idris (researcher), Lucia (volunteer), Caelan (intern), Rosalind (conservation specialist), Cedric (administrator), Daphne (genealogist), Zara (clerk). Several have strong-looking motives.

#### Q Who took the signed treaty?

1. However: Caelan is cleared – but two independent witnesses confirm a video call with them throughout the window.
2. Daphne lacks advanced restoration training – confirmed by personnel records.
3. However: Idris is cleared – but witness patron places them at the hospital with a family emergency during the entire window.
4. Lucia was passed over for a recent promotion – appears to have motive.
5. Zara was officially signed out at 23:55 via the front-desk register.
6. Idris clashed publicly with management – appears to have motive.
7. Cedric lacks after-hours building access – security audit confirms.
8. Initial assumption pointed to Daphne because of being seen near the building, but this has been independently ruled out.
9. The theft involved a seal cut with a serial pattern from a specific supply.
- 10 But: however VPN session record records show they re-authenticated from an internal network at 2:30.
- 11 Idris has knowledge of the seal serial pattern and advanced restoration training – initial suspicion . was high.
- 12 Caelan has after-hours building access and advanced restoration training and knowledge of the seal . serial pattern – initial suspicion was high.

### CASE 06

The locker contents were taken from the main court of Saint-Clair Field House during the overnight window between 00:00 and 04:15. The operation required specific qualifications, access, and timing. 7 suspects are under investigation: Saoirse (rookie player), Wren (team captain), Indira (star player), Lana (head coach), Cassia (facilities manager), Hadley (assistant coach), Phaedra (referee). Several have strong-looking motives.

#### Q Who took the locker contents?

1. Phaedra was passed over for a recent promotion – appears to have motive.
2. Lana's badge log shows them off-site the entire window.
3. Four independent requirements: advanced restoration training, after-hours building access, presence between 00:00 and 04:15, and possession of the specific tool used.
4. Hadley has possession of the specific tool used and advanced restoration training – initial suspicion was high.
5. Wren lacks after-hours building access – security audit confirms.
6. Indira lacks advanced restoration training – confirmed by personnel records.
7. The trace at the scene (a hand-machined tool stocked in only one closet) ties directly to inventory or systems uniquely accessible to Cassia.
8. The theft involved a hand-machined tool stocked in only one closet.
9. However: Saoirse is cleared – but they were on a documented overnight flight, verified by airline records.
- 10 But: however the unsecured side stairwell doesn't require a badge to re-enter.
- 11 Cassia has all four requirements: advanced restoration training, after-hours building access, . possession of the specific tool used, and meets the temporal requirement (presence between 00:00 and 04:15).

## Answer Key – Deduction Mysteries

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

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### Case 01 C) Aiko

- ☒ Four requirements (specialized engineering certification, clean-room or vault clearance, presence between 00:00 and 04:15, authorization to handle the item) plus a unique technical trace narrow the case.
  - ☒ Lucia appears guilty (has multiple requirements, has motive) but is cleared by an independent verification.
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### Case 02 E) Jacinta

- ☒ Four requirements (specialized engineering certification, after-hours building access, presence between 00:30 and 04:30, knowledge of the seal serial pattern) plus a unique technical trace narrow the case.
  - ☒ Bao appears guilty (has multiple requirements, has motive) but is cleared by an independent verification.
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### Case 03 undefined) Ines

- ☒ Four requirements (clearance to the restricted archive, documented hands-on history with the item, presence between 01:00 and 05:00, familiarity with the security routing) plus a unique technical trace narrow the case.
  - ☒ Helena appears guilty (has multiple requirements, has motive) but is cleared by an independent verification.
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### Case 04 A) Phaedra

- ☒ Four requirements (specialized engineering certification, clean-room or vault clearance, presence between 01:30 and 05:15, knowledge of the seal serial pattern) plus a unique technical trace narrow the case.
  - ☒ Zephyr appears guilty (has multiple requirements, has motive) but is cleared by an independent verification.
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### Case 05 C) Zara

- ☒ Four requirements (advanced restoration training, after-hours building access, presence between 00:15 and 04:45, knowledge of the seal serial pattern) plus a unique technical trace narrow the case.
  - ☒ Lucia appears guilty (has multiple requirements, has motive) but is cleared by an independent verification.
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### Case 06 F) Cassia

- ☒ Four requirements (advanced restoration training, after-hours building access, presence between 00:00 and 04:15, possession of the specific tool used) plus a unique technical trace narrow the case.
  - ☒ Hadley appears guilty (has multiple requirements, has motive) but is cleared by an independent verification.
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