

## Deduction Mysteries

### CASE 01

A tournament prize money was taken from the press box of Northgate Athletic Club during the overnight window between 00:45 and 03:00. The operation required specific qualifications, access, and timing. 8 suspects are under investigation: Leander (rookie player), Noor (facilities manager), Amelia (assistant coach), Penelope (team statistician), Mauro (head coach), Theo (athletic trainer), Bayan (team captain), Tarek (referee). Several have strong-looking motives.

#### Q Who took the tournament prize money?

1. Leander lacks administrator credentials – security audit confirms.
2. Initial assumption pointed to Mauro because of public friction with management, but this has been independently ruled out.
3. However: Bayan is cleared – but they were on a documented overnight flight, verified by airline records.
4. Penelope has knowledge of the seal serial pattern and administrator credentials – initial suspicion was high.
5. Theo claims to have exited the building at 23:15 – the official badge log confirms this.
6. Four independent requirements: advanced restoration training, administrator credentials, presence between 00:45 and 03:00, and knowledge of the seal serial pattern.
7. Tarek clashed publicly with management – appears to have motive.
8. Bayan has administrator credentials and knowledge of the seal serial pattern and advanced restoration training – initial suspicion was high.
9. The trace at the scene (a seal cut with a serial pattern from a specific supply) ties directly to inventory or systems uniquely accessible to Theo.
- 10 The theft involved a seal cut with a serial pattern from a specific supply.
- 11 But: however the VPN session record shows their vehicle remained in the lot until well after 00:45.

### CASE 02

An enzyme batch was swapped from the PI office of Caelum Labs during the overnight window between 01:45 and 05:30. The operation required specific qualifications, access, and timing. 8 suspects are under investigation: Noor (graduate student), Hiroshi (lab technician), Ronan (undergraduate volunteer), Hakim (operations manager), Yusuf (equipment manager), Marisol (postdoctoral researcher), Eitan (safety officer), Lucia (clinical coordinator). Several have strong-looking motives.

#### Q Who swapped the enzyme batch?

1. Hakim has clean-room or vault clearance and familiarity with the security routing – initial suspicion was high.
2. Yusuf lacks a master key issued only to senior staff – confirmed by personnel records.
3. However: Eitan is cleared – but witness sighting places them at the hospital with a family emergency during the entire window.
4. Initial assumption pointed to Noor because of being seen near the building, but this has been independently ruled out.
5. Four independent requirements: a master key issued only to senior staff, clean-room or vault clearance, presence between 01:45 and 05:30, and familiarity with the security routing.
6. Hiroshi lacks clean-room or vault clearance – security audit confirms.
7. However: Noor is cleared – but two independent witnesses confirm a video call with them throughout the window.
8. Lucia claims to have exited the building at 23:45 – the official badge log confirms this.
9. Hakim had financial pressure – appears to have motive.
- 10 Marisol's clean-room entry log shows them off-site the entire window.

## Deduction Mysteries

### CASE 03

The student transcripts were taken from the faculty lounge of Pemberton School during the overnight window between 01:15 and 04:45. The operation required specific qualifications, access, and timing. 8 suspects are under investigation: Arjun (teacher), Polina (principal), Odell (substitute teacher), Daphne (janitor), Eira (student council president), Stellan (librarian), Mei (secretary), Olive (department head). Several have strong-looking motives.

#### Q Who took the student transcripts?

1. The trace at the scene (a hand-machined tool stocked in only one closet) ties directly to inventory or systems uniquely accessible to Mei.
2. But: however the elevator override log shows their vehicle remained in the lot until well after 01:15.
3. Daphne had financial pressure – appears to have motive.
4. Stellan has clean-room or vault clearance and a master key issued only to senior staff – initial suspicion was high.
5. Odell has a master key issued only to senior staff and clean-room or vault clearance and knowledge of the seal serial pattern – initial suspicion was high.
6. Daphne has clean-room or vault clearance and knowledge of the seal serial pattern – initial suspicion was high.
7. Mei has all four requirements: a master key issued only to senior staff, clean-room or vault clearance, knowledge of the seal serial pattern, and meets the temporal requirement (presence between 01:15 and 04:45).
8. Four independent requirements: a master key issued only to senior staff, clean-room or vault clearance, presence between 01:15 and 04:45, and knowledge of the seal serial pattern.
9. However: Daphne is cleared – but printer log places them at the hospital with a family emergency ~~during the entire window.~~

### CASE 04

A sports trophy was taken from the principal's office of Brierfield Prep during the overnight window between 01:45 and 05:45. The operation required specific qualifications, access, and timing. 8 suspects are under investigation: Dario (student council president), Adrian (coach), Hadley (department head), Eitan (janitor), Sora (librarian), Joaquin (school counselor), Olive (substitute teacher), Mauro (secretary). Several have strong-looking motives.

#### Q Who took the sports trophy?

1. The theft involved a hand-machined tool stocked in only one closet.
2. Mauro lacks after-hours building access – security audit confirms.
3. But: however the unsecured service entrance doesn't require a badge to re-enter.
4. Four independent requirements: a master key issued only to senior staff, after-hours building access, presence between 01:45 and 05:45, and knowledge of the seal serial pattern.
5. The trace at the scene (a hand-machined tool stocked in only one closet) ties directly to inventory or systems uniquely accessible to Adrian.
6. However: Eitan is cleared – but their master key was revoked the day before – confirmed in the security audit.
7. However: Olive is cleared – but they were on a documented overnight flight, verified by airline records.
8. Olive was passed over for a recent promotion – appears to have motive.
9. Dario has only knowledge of the seal serial pattern of the four requirements.
10. Eitan was passed over for a recent promotion – appears to have motive.
11. Sora lacks after-hours building access – security audit confirms.
12. Hadley had financial pressure – appears to have motive.

## Deduction Mysteries

### CASE 05

A reservation book was taken from the manager's office of Aldermarsh Bistro during the overnight window between 02:30 and 05:15. The operation required specific qualifications, access, and timing. 8 suspects are under investigation: Ronan (pastry chef), Hiroshi (server), Aiko (sommelier), Nizar (bartender), Faye (head chef), Zinnia (host), Hasan (sous chef), Mateo (line cook). Several have strong-looking motives.

#### Q Who took the reservation book?

1. Nizar clashed publicly with management – appears to have motive.
2. Aiko has all four requirements: a master key issued only to senior staff, documented hands-on history with the item, familiarity with the security routing, and meets the temporal requirement (presence between 02:30 and 05:15).
3. However: Nizar is cleared – but two independent witnesses confirm a video call with them throughout the window.
4. The theft involved a foam replica skillfully painted with restoration-grade spray paint.
5. However: Faye is cleared – but they were on a documented overnight flight, verified by airline records.
6. Faye clashed publicly with management – appears to have motive.
7. Nizar has a master key issued only to senior staff and documented hands-on history with the item and familiarity with the security routing – initial suspicion was high.
8. Faye has familiarity with the security routing and documented hands-on history with the item and a master key issued only to senior staff – initial suspicion was high.
9. Hasan has only documented hands-on history with the item of the four requirements.
- 10 The trace at the scene (a foam replica skillfully painted with restoration-grade spray paint) ties directly to inventory or systems uniquely accessible to Aiko.

### CASE 06

A research notebook was swapped from the sequencing room of Brightline Sciences during the overnight window between 00:15 and 03:30. The operation required specific qualifications, access, and timing. 7 suspects are under investigation: Mikael (graduate student), Katarina (operations manager), Kai (safety officer), Rosalind (postdoctoral researcher), Tatum (lab technician), Jian (clinical coordinator), Lucia (visiting scientist). Several have strong-looking motives.

#### Q Who swapped the research notebook?

1. Initial assumption pointed to Rosalind because of proximity to the scene earlier, but this has been independently ruled out.
2. Tatum their video call ended at 23:00 according to the system.
3. Four independent requirements: advanced restoration training, documented hands-on history with the item, presence between 00:15 and 03:30, and knowledge of the seal serial pattern.
4. Kai had financial pressure – appears to have motive.
5. However: Rosalind is cleared – but two independent witnesses confirm a video call with them throughout the window.
6. Mikael lacks documented hands-on history with the item – security audit confirms.
7. Jian filed a grievance two weeks ago – appears to have motive.
8. The trace at the scene (a foam replica skillfully painted with restoration-grade spray paint) ties directly to inventory or systems uniquely accessible to Tatum.
9. However: Kai is cleared – but equipment timestamp places them at the hospital with a family emergency during the entire window.
- 10 Lucia's equipment timestamp shows them off-site the entire window.
- 11 Jian has advanced restoration training and documented hands-on history with the item and knowledge of the seal serial pattern – initial suspicion was high.

## Answer Key – Deduction Mysteries

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

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### Case 01 B) Theo

- ☒ Four requirements (advanced restoration training, administrator credentials, presence between 00:45 and 03:00, knowledge of the seal serial pattern) plus a unique technical trace narrow the case.
  - ☒ Bayan appears guilty (has multiple requirements, has motive) but is cleared by an independent verification.
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### Case 02 F) Lucia

- ☒ Four requirements (a master key issued only to senior staff, clean-room or vault clearance, presence between 01:45 and 05:30, familiarity with the security routing) plus a unique technical trace narrow the case.
  - ☒ Eitan appears guilty (has multiple requirements, has motive) but is cleared by an independent verification.
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### Case 03 A) Mei

- ☒ Four requirements (a master key issued only to senior staff, clean-room or vault clearance, presence between 01:15 and 04:45, knowledge of the seal serial pattern) plus a unique technical trace narrow the case.
  - ☒ Daphne appears guilty (has multiple requirements, has motive) but is cleared by an independent verification.
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### Case 04 C) Adrian

- ☒ Four requirements (a master key issued only to senior staff, after-hours building access, presence between 01:45 and 05:45, knowledge of the seal serial pattern) plus a unique technical trace narrow the case.
  - ☒ Olive appears guilty (has multiple requirements, has motive) but is cleared by an independent verification.
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### Case 05 B) Aiko

- ☒ Four requirements (a master key issued only to senior staff, documented hands-on history with the item, presence between 02:30 and 05:15, familiarity with the security routing) plus a unique technical trace narrow the case.
  - ☒ Faye appears guilty (has multiple requirements, has motive) but is cleared by an independent verification.
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### Case 06 B) Tatum

- ☒ Four requirements (advanced restoration training, documented hands-on history with the item, presence between 00:15 and 03:30, knowledge of the seal serial pattern) plus a unique technical trace narrow the case.
- ☒ Jian appears guilty (has multiple requirements, has motive) but is cleared by an independent verification.