

Deduction Mysteries

CASE 01

A register cash was taken from the outdoor patio of Pemberton Tavern during the overnight window between 02:15 and 05:45. The operation required specific qualifications, access, and timing. 8 suspects are under investigation: Hasan (line cook), Dimah (sous chef), Phaedra (host), Polina (head chef), Kenji (manager), Cassia (pastry chef), Omari (server), Aaliyah (bartender). Several have strong-looking motives.

Q Who took the register cash?

1. Initial assumption pointed to Kenji because of being seen near the building, but this has been independently ruled out.
2. Kenji's reservation system shows them off-site the entire window.
3. However: Aaliyah is cleared – but two independent witnesses confirm a video call with them throughout the window.
4. Dimah has only authorization to handle the item of the four requirements.
5. But: however the unsecured service entrance doesn't require a badge to re-enter.
6. Omari lacks a master key issued only to senior staff – confirmed by personnel records.
7. Hasan has authorization to handle the item and documented hands-on history with the item and a master key issued only to senior staff – initial suspicion was high.
8. Phaedra has all four requirements: a master key issued only to senior staff, documented hands-on history with the item, authorization to handle the item, and meets the temporal requirement (presence between 02:15 and 05:45).
9. Hasan clashed publicly with management – appears to have motive.
- 10 Polina clashed publicly with management – appears to have motive.
- 11 However: Hasan is cleared – but they were on a documented overnight flight, verified by airline records.

CASE 02

A calibration gauge was taken from the employee locker area of Helix Restoration during the overnight window between 02:45 and 06:30. The operation required specific qualifications, access, and timing. 8 suspects are under investigation: Quincy (master mechanic), Faye (painter), Yusuf (shop manager), Vidal (parts clerk), Ramona (welder), Ginevra (apprentice), Beatrix (electrician), Anastasia (customer service rep). Several have strong-looking motives.

Q Who took the calibration gauge?

1. Initial assumption pointed to Ginevra because of public friction with management, but this has been independently ruled out.
2. Faye their video call ended at 22:45 according to the system.
3. Anastasia clashed publicly with management – appears to have motive.
4. Vidal's parts-room audit shows them off-site the entire window.
5. However: Anastasia is cleared – but their parts-room code was revoked the day before – confirmed in the security audit.
6. The theft involved a foam replica skillfully painted with restoration-grade spray paint.
7. Quincy filed a grievance two weeks ago – appears to have motive.
8. Ramona filed a grievance two weeks ago – appears to have motive.
9. Faye has all four requirements: advanced restoration training, documented hands-on history with the item, possession of the specific tool used, and meets the temporal requirement (presence between 02:45 and 06:30).
- 10 Ramona has possession of the specific tool used and documented hands-on history with the item – initial suspicion was high.
- 11 But: however the unsecured pedestrian door doesn't require a badge to re-enter.

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CASE 03

The sealed wills were taken from the research area of Pemberton Genealogy Center during the overnight window between 00:00 and 03:15. The operation required specific qualifications, access, and timing. 7 suspects are under investigation: Meriel (clerk), Hattie (conservation specialist), Gemma (volunteer), Enzo (records administrator), Hadley (researcher), Tess (security officer), Selene (genealogist). Several have strong-looking motives.

Q Who took the sealed wills?

1. Initial assumption pointed to Hattie because of public friction with management, but this has been independently ruled out.
2. However: Tess is cleared – but they were on a documented overnight flight, verified by airline records.
3. Tess had financial pressure – appears to have motive.
4. But: however the parking-lot camera shows their vehicle remained in the lot until well after 00:00.
5. Hattie has only specialized engineering certification of the four requirements.
6. Enzo had financial pressure – appears to have motive.
7. Enzo has clean-room or vault clearance and specialized engineering certification – initial suspicion was high.
8. The theft involved a hand-machined tool stocked in only one closet.
9. However: Gemma is cleared – but two independent witnesses confirm a video call with them throughout the window.
- 10 Selene's reading-room sign-in shows them off-site the entire window.
- 11 Four independent requirements: specialized engineering certification, clean-room or vault clearance, . presence between 00:00 and 03:15, and familiarity with the security routing.
- 12 Meriel claims to have exited the building at 23:50 – the official badge log confirms this.

CASE 04

A grading book was taken from the sports equipment room of Cedarvale High during the overnight window between 02:15 and 05:45. The operation required specific qualifications, access, and timing. 8 suspects are under investigation: Lior (substitute teacher), Xanthe (secretary), Klaus (coach), Amari (student council president), Joaquín (janitor), Idris (teacher), Ravi (department head), Oren (principal). Several have strong-looking motives.

Q Who took the grading book?

1. Idris lacks elevated system privileges – confirmed by personnel records.
2. Lior lacks elevated system privileges – confirmed by personnel records.
3. However: Amari is cleared – but two independent witnesses confirm a video call with them throughout the window.
4. Xanthe has clean-room or vault clearance and possession of the specific tool used – initial suspicion was high.
5. The trace at the scene (an encryption signature tied to the internal training network) ties directly to inventory or systems uniquely accessible to Joaquín.
6. But: however the unsecured pedestrian door doesn't require a badge to re-enter.
7. Joaquín their video call ended at 22:30 according to the system.
8. However: Ravi is cleared – but their keypad code was revoked the day before – confirmed in the security audit.
9. Oren lacks elevated system privileges – confirmed by personnel records.
- 10 Joaquín has all four requirements: elevated system privileges, clean-room or vault clearance, . possession of the specific tool used, and meets the temporal requirement (presence between 02:15 and 05:45).

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CASE 05

A calibration gauge was taken from the welding bay of Pemberton Repair during the overnight window between 00:30 and 03:00. The operation required specific qualifications, access, and timing. 8 suspects are under investigation: Ulla (quality inspector), Esme (parts clerk), Quincy (master mechanic), Alejandro (welder), Bjorn (electrician), Ines (painter), Phaedra (machinist), Yvonne (shop manager). Several have strong-looking motives.

Q Who took the calibration gauge?

1. The trace at the scene (an encryption signature tied to the internal training network) ties directly to inventory or systems uniquely accessible to Yvonne.
2. Yvonne claims to have exited the building at 23:30 – the official badge log confirms this.
3. Yvonne has all four requirements: clearance to the restricted archive, after-hours building access, possession of the specific tool used, and meets the temporal requirement (presence between 00:30 and 03:00).
4. Esme had financial pressure – appears to have motive.
5. Four independent requirements: clearance to the restricted archive, after-hours building access, presence between 00:30 and 03:00, and possession of the specific tool used.
6. Initial assumption pointed to Ulla because of public friction with management, but this has been independently ruled out.
7. But: however the unsecured service entrance doesn't require a badge to re-enter.
8. However: Esme is cleared – but shop camera places them at the hospital with a family emergency during the entire window.
9. Ines filed a grievance two weeks ago – appears to have motive.
- 10 Ines has after-hours building access and possession of the specific tool used – initial suspicion . was high.

CASE 06

A wine collection inventory was taken from the manager's office of Helix Kitchen during the overnight window between 02:30 and 06:15. The operation required specific qualifications, access, and timing. 7 suspects are under investigation: Kenji (line cook), Akhil (host), Lucia (bartender), Eleni (manager), Hakim (pastry chef), Diallo (sous chef), Marisol (server). Several have strong-looking motives.

Q Who took the wine collection inventory?

1. Marisol was passed over for a recent promotion – appears to have motive.
2. But: however the DHCP log shows their vehicle remained in the lot until well after 02:30.
3. However: Kenji is cleared – but they were on a documented overnight flight, verified by airline records.
4. Initial assumption pointed to Eleni because of proximity to the scene earlier, but this has been independently ruled out.
5. Kenji has documented hands-on history with the item and familiarity with the security routing – initial suspicion was high.
6. Four independent requirements: elevated system privileges, documented hands-on history with the item, presence between 02:30 and 06:15, and familiarity with the security routing.
7. Hakim has elevated system privileges and documented hands-on history with the item – initial suspicion was high.
8. Akhil has all four requirements: elevated system privileges, documented hands-on history with the item, familiarity with the security routing, and meets the temporal requirement (presence between 02:30 and 06:15).
9. Kenji had financial pressure – appears to have motive.
- 10 The theft involved an encryption signature tied to the internal training network.

Answer Key – Deduction Mysteries

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

Case 01 **undefined) Phaedra**

- ☒ Four requirements (a master key issued only to senior staff, documented hands-on history with the item, presence between 02:15 and 05:45, authorization to handle the item) plus a unique technical trace narrow the case.
 - ☒ Hasan appears guilty (has multiple requirements, has motive) but is cleared by an independent verification.
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Case 02 **C) Faye**

- ☒ Four requirements (advanced restoration training, documented hands-on history with the item, presence between 02:45 and 06:30, possession of the specific tool used) plus a unique technical trace narrow the case.
 - ☒ Quincy appears guilty (has multiple requirements, has motive) but is cleared by an independent verification.
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Case 03 **C) Meriel**

- ☒ Four requirements (specialized engineering certification, clean-room or vault clearance, presence between 00:00 and 03:15, familiarity with the security routing) plus a unique technical trace narrow the case.
 - ☒ Gemma appears guilty (has multiple requirements, has motive) but is cleared by an independent verification.
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Case 04 **A) Joaquin**

- ☒ Four requirements (elevated system privileges, clean-room or vault clearance, presence between 02:15 and 05:45, possession of the specific tool used) plus a unique technical trace narrow the case.
 - ☒ Amari appears guilty (has multiple requirements, has motive) but is cleared by an independent verification.
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Case 05 **A) Yvonne**

- ☒ Four requirements (clearance to the restricted archive, after-hours building access, presence between 00:30 and 03:00, possession of the specific tool used) plus a unique technical trace narrow the case.
 - ☒ Esme appears guilty (has multiple requirements, has motive) but is cleared by an independent verification.
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Case 06 **F) Akhil**

- ☒ Four requirements (elevated system privileges, documented hands-on history with the item, presence between 02:30 and 06:15, familiarity with the security routing) plus a unique technical trace narrow the case.
 - ☒ Marisol appears guilty (has multiple requirements, has motive) but is cleared by an independent verification.
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