

## Deduction Mysteries

### CASE 01

A sealed reagent was swapped from the PI office of Helix Bioresearch between 02:00 and 04:00. The operation required specific qualifications and access. 6 suspects: Tess (clinical coordinator), Dario (principal investigator), Roksana (lab technician), Amari (postdoctoral researcher), Omari (undergraduate volunteer), Tariq (visiting scientist).

#### Q Who swapped the sealed reagent?

1. Dario has all three required qualifications.
2. Tariq was seen near the equipment closet earlier that evening, but they had left the building by 20:10 and never returned.
3. Roksana's badge swipe shows continuous presence in a separate building.
4. Omari lacks the required professional certification – confirmed by personnel records.
5. Tariq's clean-room access was revoked two weeks prior; archived access list confirms.
6. Amari's sample log shows continuous presence in a separate building.
7. The sample tampering required a custom-machined tool stocked only in equipment closet B.
8. Three independent requirements: professional certification, clean-room access access, and presence at the PI office during the 02:00-04:00 window.
9. Tess's badge swipe shows continuous presence in a separate building.
- 10 Dario stated they left the building at 23:35, but the elevator log shows their lab badge . active at 02:00.
- 11 A trace at the scene – a custom-machined tool stocked only in equipment closet B – matches

. inventory accessible only to Dario.					
A) Tariq	B) Amari	C) Tess	D) Omari	E) Dario	F) Roksana

### CASE 02

The client's car keys were taken from the main shop floor of Helix Restoration between 01:15 and 03:30. The operation required specific qualifications and access. 6 suspects: Noor (machinist), Ronan (apprentice), Selene (master mechanic), Cyrus (quality inspector), Nikolai (customer service rep), Suri (electrician).

#### Q Who took the client's car keys?

1. Nikolai has all three required qualifications.
2. Ronan had the qualifications but family was visiting during the window – third-party verified.
3. Cyrus was at a documented training during the window – verified by door sensor.
4. A trace at the scene – a stamped seal serial number from a controlled supply closet – matches inventory accessible only to Nikolai.
5. The theft required a stamped seal serial number from a controlled supply closet.
6. Noor lacks the required professional certification – confirmed by personnel records.
7. Suri's shop camera shows continuous presence in a separate building.
8. Three independent requirements: professional certification, tool-crib key access, and presence at the main shop floor during the 01:15-03:30 window.
9. Suri was seen near the parts storage earlier that evening, but they had left the building by 20:50 and never returned.
- 10 Selene was at a documented hospital appointment during the window – verified by parts-room . audit.
- 11 Nikolai stated they left the building at 23:10, but the elevator log shows their shop key . active at 01:15.

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### CASE 03

An ancient scroll was taken from the climate-controlled vault of Helix Modern Art between 01:00 and 03:45. The operation required specific qualifications and access. 7 suspects: Iolanthe (art restorer), Joaquin (exhibition designer), Rosalind (tour guide), Ezra (security guard), Fariha (night security), Eira (docent), Bao (archivist).

#### Q Who took the ancient scroll?

1. Iolanthe's badge swipe log shows continuous presence in a separate building.
2. Fariha was at a documented training during the window – verified by badge swipe log.
3. Fariha was seen near the restoration lab earlier that evening, but they had left the building by 20:50 and never returned.
4. Ezra has all three required qualifications.
5. Eira's witness testimony shows continuous presence in a separate building.
6. The theft required a stamped seal serial number from a controlled supply closet.
7. Bao lacks the required professional certification – confirmed by personnel records.
8. Three independent requirements: professional certification, security badge access, and presence at the climate-controlled vault during the 01:00-03:45 window.
9. Ezra stated they left the building at 22:45, but the badge access record shows their vault combination active at 01:00.
- 10 A trace at the scene – a stamped seal serial number from a controlled supply closet – matches . inventory accessible only to Ezra.
- 11 Rosalind had the qualifications but family was visiting during the window – third-party . verified.

### CASE 04

A team trophy was taken from the press box of Pemberton Stadium between 00:30 and 02:30. The operation required specific qualifications and access. 6 suspects: Amari (team captain), Cassia (referee), Selene (equipment manager), Hasan (team statistician), Wilder (facilities manager), Ines (star player).

#### Q Who took the team trophy?

1. Ines was seen near the main court earlier that evening, but they had left the building by 21:05 and never returned.
2. Hasan had the qualifications but was on a flight during the window – third-party verified.
3. Cassia lacks the required professional expertise – confirmed by personnel records.
4. A trace at the scene – a custom-machined tool stocked only in equipment closet B – matches inventory accessible only to Amari.
5. Amari has all three required qualifications.
6. The theft required a custom-machined tool stocked only in equipment closet B.
7. Selene had the qualifications but was hospitalized during the window – third-party verified.
8. Wilder had the qualifications but family was visiting during the window – third-party verified.
9. Amari stated they left the building at 23:50, but the elevator log shows their facility badge active at 00:30.
- 10 Ines had the qualifications but was hospitalized during the window – third-party verified.
- 11 Three independent requirements: professional expertise, locker code access, and presence at . the press box during the 00:30-02:30 window.

## Deduction Mysteries

### CASE 05

A controlled medication was taken from the imaging room of Pemberton Medical between 03:00 and 05:15. The operation required specific qualifications and access. 7 suspects: Saoirse (social worker), Idris (attending physician), Talia (pharmacist), Joaquin (head nurse), Arjun (janitor), Amelia (medical resident), Ravi (technician).

#### Q Who took the controlled medication?

1. Arjun lacks the required professional training – confirmed by personnel records.
2. Ravi was seen near the blood bank earlier that evening, but they had left the building by 20:45 and never returned.
3. Saoirse's door sensor shows continuous presence in a separate building.
4. Joaquin had the qualifications but was on a flight during the window – third-party verified.
5. The theft required a specific paint formulation only stocked in the restoration lab.
6. Amelia had the qualifications but family was visiting during the window – third-party verified.
7. A trace at the scene – a specific paint formulation only stocked in the restoration lab – matches inventory accessible only to Talia.
8. Idris's pharmacy key was revoked two weeks prior; archived access list confirms.
9. Talia stated they left the building at 23:25, but the door sensor history shows their hospital badge active at 03:00.
- 10 Three independent requirements: professional training, pharmacy key access, and presence at the imaging room during the 03:00-05:15 window.
- 11 Ravi was at a documented hospital appointment during the window – verified by witness staff.
- 12 Talia has all three required qualifications.

### CASE 06

The signed jerseys were taken from the locker room of Pemberton Stadium between 03:30 and 05:45. The operation required specific qualifications and access. 7 suspects: Renata (star player), Nikolai (athletic trainer), Lior (equipment manager), Meriel (team statistician), Elara (assistant coach), Nizar (facilities manager), Amari (team captain).

#### Q Who took the signed jerseys?

1. Meriel has all three required qualifications.
2. Meriel stated they left the building at 23:05, but the parking-lot camera shows their equipment-room key active at 03:30.
3. The theft required a custom-machined tool stocked only in equipment closet B.
4. Nikolai had the qualifications but family was visiting during the window – third-party verified.
5. Renata was seen near the locker room earlier that evening, but they had left the building by 20:15 and never returned.
6. Three independent requirements: professional training, team key access, and presence at the locker room during the 03:30-05:45 window.
7. Amari's team key was revoked two weeks prior; archived access list confirms.
8. Renata's team key was revoked two weeks prior; archived access list confirms.
9. Nizar lacks the required professional training – confirmed by personnel records.
- 10 Lior was at a documented training during the window – verified by witness teammate.
- 11 A trace at the scene – a custom-machined tool stocked only in equipment closet B – matches inventory accessible only to Meriel.

## Answer Key – Deduction Mysteries

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

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### Case 01 E) Dario

- ☒ Three requirements (professional certification, clean-room access, presence at the PI office during the 02:00-04:00 window) plus a technical trace narrow this case.
  - ☒ Tess eliminated by alibi or missing qualification.
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### Case 02 D) Nikolai

- ☒ Three requirements (professional certification, tool-crib key, presence at the main shop floor during the 01:15-03:30 window) plus a technical trace narrow this case.
  - ☒ Noor eliminated by alibi or missing qualification.
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### Case 03 B) Ezra

- ☒ Three requirements (professional certification, security badge, presence at the climate-controlled vault during the 01:00-03:45 window) plus a technical trace narrow this case.
  - ☒ Iolanthe eliminated by alibi or missing qualification.
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### Case 04 D) Amari

- ☒ Three requirements (professional expertise, locker code, presence at the press box during the 00:30-02:30 window) plus a technical trace narrow this case.
  - ☒ Cassia eliminated by alibi or missing qualification.
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### Case 05 B) Talia

- ☒ Three requirements (professional training, pharmacy key, presence at the imaging room during the 03:00-05:15 window) plus a technical trace narrow this case.
  - ☒ Saoirse eliminated by alibi or missing qualification.
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### Case 06 C) Meriel

- ☒ Three requirements (professional training, team key, presence at the locker room during the 03:30-05:45 window) plus a technical trace narrow this case.
  - ☒ Renata eliminated by alibi or missing qualification.
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