

Deduction and clues: open practice pack

25 untimed puzzles on a difficulty 1–5 ladder.

Detail	Value
Pack	puzzles-deduction-and-clues
Source	puzzles
Pack version	v1
Worksheet items	25
Authored hints	25
Worked explanations	25

Puzzles are an untimed educational and entertainment activity. They are not a clinical, diagnostic, standardized, or professionally recognized assessment. Solving puzzles here does not produce an IQ score and cannot be used for Mensa qualification, diagnosis, giftedness identification, educational placement, employment selection, disability applications, accommodations, legal matters, or medical decisions. Puzzle items are never used as unseen scored questions in any Novus Learn assessment.

The answer key and worked explanations in this file belong only to this public, untimed educational practice source. No active aptitude suite or Novus Reasoning Challenge answer key is ever included in any download.

Learner worksheet

Work down the ladder in order. The early puzzles need one rule applied once; the last three need a named technique: a counting bound, an assumption driven to a contradiction, or a check for whether the clues settle the question at all. Nothing here is timed and nothing is scored. Read the explanation after every puzzle, including the ones you get right: the method it names is the part that transfers. Pen and paper start to help from about the middle of the set.

Choose one answer for each item. Keep the authored hints, answer key, and worked explanations separate until you are ready to check your work.

Difficulty 1

Start here and establish the method before moving up the ladder.

1. puz-deduction-and-clues-01: The blue trolley

Difficulty: Difficulty 1

Every plant on the blue trolley needs daily watering. The fern is on the blue trolley. What must be true of the fern?

- A. It needs daily watering.
- B. It is the only plant on the trolley that needs daily watering.
- C. Any plant that needs daily watering is on the blue trolley.
- D. It will stop needing daily watering once it leaves the trolley.

Your answer: _____

2. puz-deduction-and-clues-02: The badge rule

Difficulty: Difficulty 1

At one office, everyone who attends the Monday briefing collects a visitor badge from reception. Priya did not collect a visitor badge. What follows?

- A. Priya collected a badge somewhere other than reception.
- B. Priya attended the briefing without a badge.
- C. Priya did not attend the Monday briefing.
- D. Nobody who collected a badge attended the briefing.

Your answer: _____

3. puz-deduction-and-clues-03: Three parcels on the scales

Difficulty: Difficulty 1

The green parcel is heavier than the red parcel. The red parcel is heavier than the grey parcel. Which ordering, heaviest first, is correct?

- A. Red, green, grey.
- B. Green, red, grey.
- C. Grey, red, green.
- D. Green, grey, red.

Your answer: _____

4. puz-deduction-and-clues-04: This morning's loaves

Difficulty: Difficulty 1

All the loaves baked this morning are wholemeal. Some of the loaves baked this morning were sold before noon. Which conclusion is guaranteed?

- A. Every wholemeal loaf was sold before noon.
- B. Some loaves sold before noon were not wholemeal.
- C. Every loaf sold before noon was baked this morning.
- D. Some wholemeal loaves were sold before noon.

Your answer: _____

5. puz-deduction-and-clues-05: Before seven at the depot

Difficulty: Difficulty 1

No lorry enters the depot before seven in the morning. A vehicle entered the depot at half past six. What must be true of that vehicle?

- A. It was the only vehicle to enter early that day.
- B. It was not a lorry.
- C. It was a lorry, and it broke the rule.
- D. It was a van.

Your answer: _____

Difficulty 2

Continue in order; use the worked explanations from earlier rungs when needed.

6. puz-deduction-and-clues-06: The alarm that stayed silent

Difficulty: Difficulty 2

If the alarm sounds, the doors lock automatically. This morning the alarm did not sound. What follows about the doors?

- A. They stayed unlocked all morning.
- B. They locked anyway, because locking is automatic.
- C. Nothing follows: they may have been locked or unlocked.
- D. They lock only when the alarm sounds.

Your answer: _____

7. puz-deduction-and-clues-07: The wet path

Difficulty: Difficulty 2

If the sprinkler runs, the path becomes wet. This evening the path is wet. What follows about the sprinkler?

- A. It ran this evening.
- B. It did not run this evening.
- C. It runs whenever the path is wet.
- D. Nothing follows: a wet path has other possible causes.

Your answer: _____

8. puz-deduction-and-clues-08: Four runners, three comparisons

Difficulty: Difficulty 2

Four runners finished with no ties. Who won?

Ivo, Jen, Kofi and Lena finished a race in some order. 'Ahead of' means in a better finishing position.

1. Jen finished ahead of Kofi.
2. Ivo finished behind Kofi.
3. Lena finished ahead of Jen.

- A. Lena
- B. Jen
- C. Kofi
- D. Ivo

Your answer: _____

9. puz-deduction-and-clues-09: One of them is lying

Difficulty: Difficulty 2

Exactly one of the two always tells the truth. On which day did the delivery arrive?

Tom and Vera work in the same store. One of them always tells the truth and the other always lies.

1. Tom says: 'Vera and I both tell the truth.'
 2. Vera says: 'The delivery arrived the day after the meeting, and the meeting was on Monday.'
- A. Sunday
 - B. Monday
 - C. Tuesday
 - D. Wednesday

Your answer: _____

10. puz-deduction-and-clues-10: Tray one

Difficulty: Difficulty 2

All the seedlings in tray one are marigolds. No marigold has been treated with feed. What follows about the seedlings in tray one?

- A. Some of them have been treated with feed.
- B. None of them has been treated with feed.
- C. Every untreated plant is in tray one.
- D. Any plant treated with feed is a marigold.

Your answer: _____

11. puz-deduction-and-clues-11: At least as many

Difficulty: Difficulty 2

Four quiz teams finished on four different scores. Which team came last?

Ash, Brook, Clay and Dawn each finished the quiz with a points total.

1. Ash scored more than Brook.
 2. Brook scored more than Dawn.
 3. Dawn scored at least as many points as Clay.
 4. No two teams finished on the same score.
- A. Ash
 - B. Brook
 - C. Dawn
 - D. Clay

Your answer: _____

Difficulty 3

Continue in order; use the worked explanations from earlier rungs when needed.

12. puz-deduction-and-clues-12: Three statements, one of them false

Difficulty: Difficulty 3

Exactly one of the three statements below is false. Who forgot to lock up?

Nia, Owen, Ravi and Sara share the closing duty. Exactly one of the four forgot to lock up last night, and three of them have spoken.

1. Nia says: 'Owen forgot to lock up.'
2. Owen says: 'I did not forget to lock up.'
3. Ravi says: 'Nia forgot to lock up.'

- A. Nia
- B. Owen
- C. Ravi
- D. Sara

Your answer: _____

13. puz-deduction-and-clues-13: Three workshops, three mornings

Difficulty: Difficulty 3

Which schedule fits every constraint?

A community centre runs three workshops (pottery, coding and first aid) one on each of three mornings.

1. Each workshop runs on exactly one morning: Monday, Tuesday or Wednesday.
 2. First aid does not run on Monday.
 3. Coding runs on the morning immediately before pottery.
- A. Coding Monday, first aid Tuesday, pottery Wednesday.
 - B. First aid Monday, coding Tuesday, pottery Wednesday.
 - C. Coding Monday, pottery Tuesday, first aid Wednesday.
 - D. Pottery Monday, coding Tuesday, first aid Wednesday.

Your answer: _____

14. puz-deduction-and-clues-14: The supervisor's leap

Difficulty: Difficulty 3

Which criticism of the supervisor's conclusion is the correct one?

Notes from a depot meeting.

1. Every van in the fleet was serviced in March.
 2. Two vans broke down in April.
 3. The supervisor concludes that the March service was carried out badly.
- A. The facts cover the whole fleet, so nothing can follow about one van.
 - B. A breakdown after a service does not by itself show the service failed.
 - C. Two breakdowns is too small a number to support any conclusion at all.
 - D. The conclusion is safe, since the vans were serviced and then failed.

Your answer: _____

15. puz-deduction-and-clues-15: A rule inside a rule

Difficulty: Difficulty 3

If the ferry is cancelled, then if the bridge is open the coach takes the bridge route. Today the ferry was cancelled and the coach did not take the bridge route. What follows?

- A. The bridge was open and the driver ignored the rule.
- B. The ferry was running after all.

- C. The bridge is always closed when the ferry is cancelled.
- D. The bridge was not open.

Your answer: _____

16. puz-deduction-and-clues-16: Who brought the tart

Difficulty: Difficulty 3

Four neighbours each brought exactly one item to a shared lunch. Who brought the tart?

Beth, Cormac, Dilip and Esme brought the bread, the cheese, the olives and the tart between them, one item each.

1. Cormac brought neither the bread nor the cheese.
2. Beth brought neither the olives nor the tart.
3. Dilip brought the cheese.
4. Cormac did not bring the tart.

- A. Esme
- B. Beth
- C. Cormac
- D. Dilip

Your answer: _____

17. puz-deduction-and-clues-17: Most is not all

Difficulty: Difficulty 3

Most members of the walking group own waterproofs. Everyone who owns waterproofs has walked the coast path. Which conclusion does not follow?

- A. Most members of the group have walked the coast path.
- B. Every member of the group has walked the coast path.
- C. At least one member of the group has walked the coast path.
- D. Some people who own waterproofs have walked the coast path.

Your answer: _____

Difficulty 4

Continue in order; use the worked explanations from earlier rungs when needed.

18. puz-deduction-and-clues-18: Four statements, two of them false

Difficulty: Difficulty 4

Exactly one of the four booked the room, and exactly two of their statements are false. Who booked it?

Hana, Idris, Jo and Kemi each say one thing about who booked the meeting room.

1. Hana says: 'I did not book the room.'
2. Idris says: 'Jo booked the room.'
3. Jo says: 'Idris booked the room.'
4. Kemi says: 'It was Idris who booked the room.'

- A. Hana
- B. Idris
- C. Jo
- D. Kemi

Your answer: _____

19. puz-deduction-and-clues-19: Five in the queue

Difficulty: Difficulty 4

Five people stand in a single queue. Who is second?

Amara, Bo, Cai, Dev and Elin stand in a queue. Position one is at the front; 'ahead of' means closer to the front.

1. Cai is at the back of the queue.
2. Dev stands immediately ahead of Amara.
3. Elin is somewhere ahead of Bo.
4. Amara is not second.
5. Bo is not fourth.

- A. Bo
- B. Dev
- C. Amara
- D. Elin

Your answer: _____

20. puz-deduction-and-clues-20: Only if you have paid

Difficulty: Difficulty 4

A club rule says: you may enter the tournament only if you have paid the annual fee. Farrah has paid the annual fee. What follows about her entry?

- A. She may enter the tournament, because the condition is satisfied.
- B. She has entered the tournament.
- C. Anyone who has paid the annual fee may enter the tournament.
- D. Paying is required for entry, but on its own it need not be enough.

Your answer: _____

21. puz-deduction-and-clues-21: The clue that does no work

Difficulty: Difficulty 4

The four clues fix the rota exactly. One of them could be deleted with the rota still fixed. Which clue is it?

Priya, Quill, Rosa and Ted each work exactly one day of the week: Monday, Tuesday, Wednesday or Thursday.

1. Priya works on Monday.
2. Quill does not work on Monday.
3. Rosa works the day immediately after Quill.
4. Ted does not work on Thursday.

- A. Priya works on Monday.
- B. Quill does not work on Monday.
- C. Rosa works the day immediately after Quill.
- D. Ted does not work on Thursday.

Your answer: _____

22. puz-deduction-and-clues-22: What Priya could not tell

Difficulty: Difficulty 4

What can Quinn work out from Priya's remark?

A bag of counters, and two friends holding one each.

1. The bag held three red counters and one blue counter.
 2. Priya and Quinn each drew one counter and hold it so that only the other person can see it.
 3. Both of them know exactly what the bag held.
 4. Priya, looking at Quinn's counter, says: 'I cannot tell what colour mine is.'
- A. That her own counter is blue.
 - B. That Priya's counter is blue.
 - C. That her own counter is red.
 - D. Nothing: an admission of ignorance carries no information.

Your answer: _____

Difficulty 5

Continue in order; use the worked explanations from earlier rungs when needed.

23. puz-deduction-and-clues-23: Five statements, at least four true

Difficulty: Difficulty 5

Exactly one of the five switched the boiler off. Who was it, and how many statements are false?

Ana, Ben, Cara, Dai and Eve were the only people in the building. At least four of the five statements below are true.

1. Ana says: 'It was Ben or Cara.'
 2. Ben says: 'I did not switch it off.'
 3. Cara says: 'Ana is telling the truth.'
 4. Dai says: 'Ben is telling the truth.'
 5. Eve says: 'Cara is lying.'
- A. Ana, with two false statements.
 - B. Ben, with three false statements.
 - C. Dai, with two false statements.
 - D. Cara, with one false statement.

Your answer: _____

24. puz-deduction-and-clues-24: Assume it, then break it

Difficulty: Difficulty 5

Four runners finished with no ties. Who finished last?

Farid, Gwen, Hugo and Ines finished in first, second, third and fourth place.

1. Gwen finished ahead of Hugo.
2. Farid finished either first or last.
3. If Farid finished first, then Ines finished ahead of Gwen.
4. Ines did not finish second.

- A. Farid
- B. Hugo
- C. Ines
- D. Gwen

Your answer: _____

25. puz-deduction-and-clues-25: Four weeks, four colleagues

Difficulty: Difficulty 5

Each colleague takes a different week of leave. Which week does Mira take?

Mira, Noor, Otto and Pia each take one week of leave, in weeks one, two, three and four of the month.

1. Otto takes an earlier week than Pia.
 2. Mira does not take week one.
 3. Noor takes week three.
- A. Week one.
 - B. Week two.
 - C. It cannot be determined from the clues.
 - D. Week four.

Your answer: _____

Authored hints

Only hints supplied by the puzzle authors are included. Items without a source hint are listed as missing; no hint text is generated or inferred.

0 worksheet items do not have an authored hint. No hint text was generated for them.

puz-deduction-and-clues-01: One sentence is a general rule; the other names a case that falls under it.

puz-deduction-and-clues-02: Suppose for a moment that she had attended, and see what the rule would then force.

puz-deduction-and-clues-03: Both comparisons mention the same parcel; use it to join them into one chain.

puz-deduction-and-clues-04: Take the loaves sold before noon and ask what the rule lets you call them.

puz-deduction-and-clues-05: The sentence describes what happens at the depot, not what would be permitted.

puz-deduction-and-clues-06: Ask whether the rule says anything at all about mornings when the alarm stays silent.

puz-deduction-and-clues-07: List two other ways a path gets wet, then ask whether the rule rules them out.

puz-deduction-and-clues-08: Turn each comparison into a link and join all three into one line before reading

off the front.

puz-deduction-and-clues-09: Start with the speaker whose claim would break the stated setup if it were true.

puz-deduction-and-clues-10: Relabel the tray-one seedlings using the first sentence, then apply the second to that label.

puz-deduction-and-clues-11: One clue leaves room for a tie; another closes it. Read those two together.

puz-deduction-and-clues-12: Test each person in turn as the one who forgot, and count how many statements come out false.

puz-deduction-and-clues-13: Place the pair that must sit side by side first, then see which morning is left over.

puz-deduction-and-clues-14: Ask what else, apart from a poor service, could put a van off the road in April.

puz-deduction-and-clues-15: Use the given fact to unlock the inner rule, then run that inner rule backwards.

puz-deduction-and-clues-16: Find the person ruled out of three of the four items and give them what is left.

puz-deduction-and-clues-17: Picture a group where a clear majority, but not everyone, owns waterproofs.

puz-deduction-and-clues-18: Take each name in turn as the one who booked, and count the false statements that follow.

puz-deduction-and-clues-19: Start with the clue that fixes a position outright, then try the welded pair in each place it can start.

puz-deduction-and-clues-20: Rewrite the rule as an arrow: does it run from entry to payment, or the other way?

puz-deduction-and-clues-21: Cover each clue in turn and check whether the other three still pin down every day.

puz-deduction-and-clues-22: Ask what she would have said if the counter she was looking at had been the blue one.

puz-deduction-and-clues-23: Work through the five candidates one at a time and tally which statements survive in each case.

puz-deduction-and-clues-24: The clue offering two possibilities is where to start: try one branch and see whether it survives.

puz-deduction-and-clues-25: Before settling on a week, try to build two different rotas that both obey every clue.

Answer key

The answer key and worked explanations in this file belong only to this public, untimed educational practice source. No active aptitude suite or Novus Reasoning Challenge answer key is ever included in any download.

Deduction and clues: open practice pack answer key

Item	Choice	Answer
puz-deduction-and-clues-01	A	It needs daily watering.
puz-deduction-and-clues-02	C	Priya did not attend the Monday briefing.
puz-deduction-and-clues-03	B	Green, red, grey.
puz-deduction-and-clues-04	D	Some wholemeal loaves were sold before noon.
puz-deduction-and-clues-05	B	It was not a lorry.
puz-deduction-and-clues-06	C	Nothing follows: they may have been locked or unlocked.

puz-deduction-and-clues-07	D	Nothing follows: a wet path has other possible causes.
puz-deduction-and-clues-08	A	Lena
puz-deduction-and-clues-09	C	Tuesday
puz-deduction-and-clues-10	B	None of them has been treated with feed.
puz-deduction-and-clues-11	D	Clay
puz-deduction-and-clues-12	A	Nia
puz-deduction-and-clues-13	C	Coding Monday, pottery Tuesday, first aid Wednesday.
puz-deduction-and-clues-14	B	A breakdown after a service does not by itself show the service failed.
puz-deduction-and-clues-15	D	The bridge was not open.
puz-deduction-and-clues-16	A	Esme
puz-deduction-and-clues-17	B	Every member of the group has walked the coast path.
puz-deduction-and-clues-18	C	Jo
puz-deduction-and-clues-19	A	Bo
puz-deduction-and-clues-20	D	Paying is required for entry, but on its own it need not be enough.
puz-deduction-and-clues-21	B	Quill does not work on Monday.
puz-deduction-and-clues-22	C	That her own counter is red.
puz-deduction-and-clues-23	D	Cara, with one false statement.
puz-deduction-and-clues-24	A	Farid
puz-deduction-and-clues-25	C	It cannot be determined from the clues.

Worked explanations

puz-deduction-and-clues-01: This is a rule applied to a case: the step logicians call *modus ponens*. One sentence is a general rule covering everything on the trolley; the other says the fern is one of those things, so the rule attaches to it and no further checking is needed. The tempting wrong route reads the rule backwards, as though only trolley plants need daily water; nothing said that, and a fern on a windowsill could need water just as often. Whenever a sentence opens with 'every', look for a case that satisfies its opening condition and read the conclusion straight off.

puz-deduction-and-clues-02: This is the *contrapositive*: attending implies a collected badge, so no badge implies no attending. Flipping a rule and negating both halves preserves its truth exactly. Test it directly. Suppose she had attended; the rule would then hand her a badge, contradicting what you were told, so attendance is ruled out. The near-miss keeps her at the briefing and treats the missing badge as an oversight, but the rule as stated leaves no such gap. Note also that the rule says nothing about people who did collect a badge, so it never tells you what badge holders did.

puz-deduction-and-clues-03: This is *chaining by transitivity*. Both comparisons mention the red parcel, so they link at that point: green sits above red, red sits above grey, and the single chain gives the whole order without weighing anything. The most common slip is reading the whole chain the wrong way round and reporting it lightest first, which reverses the line completely. The other trap is keeping the ends right but swapping the middle, which quietly contradicts the comparison that put red above grey. Look for the item that appears in two clues; that shared item is always the hinge.

puz-deduction-and-clues-04: A universal rule lets you relabel. Take the loaves that were sold before noon: they were baked this morning, and everything baked this morning is wholemeal, so those same loaves are wholemeal. A 'some' claim carried across an 'all' claim stays a 'some' claim. The near-miss inflates the quantifier and reports that every wholemeal loaf sold early, which the premises never support: yesterday's

wholemeal stock could still be sitting on the shelf. Watch the quantifier you started with and refuse to let it grow while it travels.

puz-deduction-and-clues-05: A 'no A does B' statement says two groups never overlap: lorries and things entering before seven have nothing in common. The vehicle is squarely in the second group, so it cannot be in the first, and that is the whole step. One tempting reading treats the sentence as a permission that someone might have flouted, but it describes what happens at the depot, not what would be allowed. Another names a specific replacement, and nothing here narrows the field to vans: a car, a bicycle or a milk float would fit just as well. Take a 'no' statement as an exclusion, and claim only the exclusion.

puz-deduction-and-clues-06: Denying the antecedent is the classic invalid step. The rule promises what happens when the alarm sounds and says nothing whatever about a quiet morning, so a silent alarm licenses no conclusion about the doors. A caretaker, a timer or a delivery driver could have locked them for reasons the rule never mentions. The near-miss slides from 'sounding locks the doors' to 'only sounding locks the doors', quietly adding an exclusivity the sentence never claimed. When you are handed the negation of an if-clause, expect nothing to follow and check whether the rule was ever stated the other way round.

puz-deduction-and-clues-07: This is affirming the consequent. A conditional guarantees the effect once the cause is present; it never promises that the cause is the only route to that effect. Rain, a burst hose or a tipped watering can all leave the same wet path, and the rule excludes none of them, so observing the effect leaves the sprinkler an open question. The confident wrong route runs the arrow backwards and reports that the sprinkler must have run. Read every 'if ... then' as a one-way arrow, and check which end of it your evidence sits at before drawing anything.

puz-deduction-and-clues-08: Turn each comparison into a link and join them at their shared names. The first two clues give Jen above Kofi above Ivo; the third clue hooks on at the top, putting Lena above Jen, so the full line runs Lena, Jen, Kofi, Ivo and the winner is the name at the head of it. Stopping after the first two clues leaves Jen apparently in front: the commonest error here, and the reason to check that every clue has been used before reading anything off. Reading all three relations the wrong way round produces the exact reverse of the line, with the runner who actually came last on top.

puz-deduction-and-clues-09: Start with the claim that undermines itself. If the speaker who says they are both truthful were the truthful one, his claim would be true and both would be honest, which contradicts the stated fact that only one of them is. So that claim is false, its speaker is the liar, and the other speaker can be trusted completely. Her two facts then combine directly: the meeting was Monday, and the delivery came the day after it. Reading 'the day after' as the day before lands you a day early; counting on past the following day lands you a day late. Whenever a speaker's claim would break the setup if true, that is the thread to pull first.

puz-deduction-and-clues-10: Two universal statements chain when the middle group is shared. Everything in the tray sits inside the marigold group, and the marigold group sits entirely outside the treated group, so nothing in the tray can be treated. An 'all' followed by a 'no' yields a 'no'. Both wrong routes reverse a statement instead of chaining it: one turns 'no marigold is treated' into a claim about treated plants being marigolds, the other turns 'all tray-one plants are marigolds' into a claim that untreated plants live in the tray. Draw the groups as nested and separated regions and the direction of each claim stays visible.

puz-deduction-and-clues-11: The decisive move is combining a weak comparison with a clue that forbids equality. 'At least as many' allows two readings (more, or exactly the same), and on its own it settles nothing. The no-ties clue removes the second reading, so it becomes strictly more, and the chain closes: Ash above Brook above Dawn above Clay. The near-miss treats the weak comparison as an equality and leaves the bottom two tied or the wrong way round. Any time a clue uses 'at least', 'no more than' or 'not later than', look for a second clue that rules the boundary case in or out.

puz-deduction-and-clues-12: Do not argue about who sounds honest; test each candidate and count. If the accused colleague forgot, his own denial fails and so does the accusation aimed at someone else: two false statements, one too many. If either of the two remaining colleagues forgot, both accusations fail, again two.

The count only comes out right for the colleague who is both an accuser and the person accused in the last statement: her own accusation is false, the denial is true and the accusation against her is true, giving exactly one falsehood. The trap is treating two statements pointing away from her as weight of evidence; a counting constraint is arithmetic, not a vote.

puz-deduction-and-clues-13: Place the block first. 'Immediately before' welds two workshops into a two-morning unit that can only sit at the start or the end of the week, and the other workshop takes whichever morning is left. Putting the unit at the end forces first aid onto Monday, which one clue forbids, so the unit sits at the start and first aid closes the week. Two familiar errors show up here: loosening 'immediately before' into 'somewhere before', which lets a third workshop slide between the pair, and reversing the pair so that the later workshop is placed first. With adjacency clues, always try the block in each legal position before assigning anything else.

puz-deduction-and-clues-14: The flaw is the leap from sequence to cause, after this, therefore because of this. The facts fix an order of events and nothing more: a kerbed wheel, an ageing battery or a fortnight of hard driving would produce the same April breakdowns with a perfectly good March service behind them. Until something rules those out, the service is one candidate cause among several. The tempting objection about the small number of breakdowns misses the real gap, because even a hundred failures would still leave the cause unlocated; what is missing is not volume of evidence but any evidence that separates the candidates. Ask what else could have produced the observation before naming a cause.

puz-deduction-and-clues-15: Nested conditionals are peeled from the outside in. The outer rule fires because its condition, a cancelled ferry, is given, and what it delivers is the inner rule: open bridge means bridge route. You are told the bridge route was not taken, so running that inner rule backwards leaves only one possibility for the bridge. Two wrong routes are worth naming: one rejects a fact you were handed rather than a fact you derived, and one turns a single day's outcome into a standing rule about every cancellation. Peel the outer layer with the fact you are given, then apply the flipped form to the layer underneath.

puz-deduction-and-clues-16: Negative clues work by stacking. One person is barred from bread and cheese by one clue and from the tart by another, which leaves exactly one item for him, and that single forced assignment is what unlocks everything else. With the cheese already named and the olives now taken, the neighbour barred from olives and tart can only have brought the bread, and the last name takes what remains. The near-miss is to fix only the directly stated pairing and then guess among the rest; the clue that never names an item positively is doing the heavy work. Count exclusions per person and act on whoever has the fewest items left.

puz-deduction-and-clues-17: A majority claim survives being pushed through an exception-free rule, but it never grows on the way. Picture ten members with seven owning waterproofs: all seven have walked the path, so a majority have walked it and certainly at least one has, yet the three without waterproofs are untouched by the rule and may never have been near the coast. That single model is enough to show which conclusion overreaches. The mistake to watch for is hearing 'most' as 'effectively everyone' once a firm second rule appears; the firmness belongs to the rule about owners, not to the size of the group it covers.

puz-deduction-and-clues-18: Run the count for each candidate rather than weighing accusations. Take the doubly accused colleague first: if he booked the room, both accusations against him hold and so does the lone denial, leaving only one false statement. Short of the required two. If the denier booked it, every statement fails, giving four. If the fourth colleague booked it, three fail. Only the person who accused the doubly accused colleague produces exactly two falsehoods: her own accusation and the matching one beside it. The trap is the pile-on. Two people naming the same colleague feels decisive, when in fact it is precisely why that case cannot supply enough falsehoods.

puz-deduction-and-clues-19: Fix the absolute clue, then slide the adjacent pair. With the back of the queue taken, the welded pair can start at position one, two or three. Starting at one puts the second member of the pair in second place, which a clue forbids. Starting at two leaves places one and four for the remaining two people, and the only way to fill them puts the wrong person in fourth. Starting at three works: the pair takes third and fourth, and the ahead-of clue orders the front two, giving the whole line. Dropping the clue about

fourth place is what produces the tempting alternative in which the pair sits earlier; counting the queue from the back instead of the front is the other reliable way to go wrong.

puz-deduction-and-clues-20: 'Only if' marks a necessary condition, not a sufficient one. The rule points one way, entering implies having paid, so it tells you what every entrant must have done, and nothing about what a payer may now do. The club could also require membership, a place in the draw or a partner, and the rule as written leaves all of that open. Two errors sit close together here: running the arrow backwards so that payment unlocks entry, and quietly upgrading permission into fact by treating a paid fee as evidence she took part. Rewrite any 'only if' as an arrow from the permitted act to its requirement, then check which end your evidence sits at.

puz-deduction-and-clues-21: Test redundancy by deletion: cover a clue and ask whether the remaining ones still force a single rota. Once Monday is claimed outright, the clue keeping one colleague off Monday adds nothing that the other clues have not already settled: it repeats information rather than removing a possibility. Everything else earns its place: the adjacent pair can sit in two positions across the week, and the clue barring Thursday is the decisive one that kills the earlier of those two, leaving Tuesday, Wednesday and Thursday filled in only one way. Redundant does not mean false, and a clue that merely feels obvious may still be the one doing the eliminating. The deletion test is what separates them.

puz-deduction-and-clues-22: This is reasoning from what someone does not know. Work out what the speaker would have said in each case: if the counter she was looking at had been the blue one, every counter left in play would be red and she could have named her own immediately. She could not, so the counter facing her is not the blue one, and that fixes the colour of the counter its holder cannot see. Her own counter stays open, which is the near-miss to avoid: the inference travels from her ignorance to what she can see, not to what she holds. Treating 'I do not know' as empty is the other trap; an admission of ignorance eliminates every situation in which the speaker would have known.

puz-deduction-and-clues-23: This is case analysis under a counting bound, and the discipline is to build the whole table before judging anything. Test each person as the culprit and mark all five statements: the accuser's own case yields three true statements, the denier's yields two, and the two colleagues nobody named yield three apiece. One case yields four. The pair-accusation holds, the denial holds, both endorsements hold, and only the claim that one speaker is lying fails. Since the bound demands at least four, exactly one case survives. Two things trip solvers here: assuming the culprit must also be a liar, which nothing states, and accepting a three-true case because it is internally consistent. Consistency is not the test, the stated count is.

puz-deduction-and-clues-24: This is proof by contradiction. Suppose the runner tied to an either/or clue came first. The conditional then fires and places Ines ahead of Gwen, Gwen is already ahead of Hugo, and only one order is left, which puts Ines in second place, exactly what the final clue forbids. The assumption cannot stand, so the other branch of the either/or is the only one available and the last place is settled. Notice that the remaining three places are still open and you never needed them: aim an assumption at the fact you were actually asked about and stop the moment it is decided. Following the rejected branch to the end is what produces the tempting result that the runner beaten by Gwen came last.

puz-deduction-and-clues-25: Before answering, try to build two worlds instead of one. Both of these satisfy every clue: Otto in week one, Mira in week two, Noor in week three, Pia in week four; and Otto in week one, Pia in week two, Noor in week three, Mira in week four. Mira sits in a different week in each, so nothing here pins her down. The clues are not useless (two colleagues land in the same week in both worlds, and one week is genuinely closed to her), so the honest verdict is that some facts follow and this one does not. The mistake is stopping at the first arrangement you manage to build and reading the answer off it: an arrangement that merely fits is not an arrangement that is forced.

Puzzles are an untimed educational and entertainment activity. They are not a clinical, diagnostic, standardized, or professionally recognized assessment. Solving puzzles here does not produce an IQ score and cannot be used for Mensa qualification, diagnosis, giftedness identification, educational placement, employment selection, disability

applications, accommodations, legal matters, or medical decisions. Puzzle items are never used as unseen scored questions in any Novus Learn assessment.

The answer key and worked explanations in this file belong only to this public, untimed educational practice source. No active aptitude suite or Novus Reasoning Challenge answer key is ever included in any download.

Source: <https://learn.novusstreamsolutions.com/puzzles/deduction-and-clues>