3.44-3 Verbal Reasoning: Logic and Deduction Set 3: 10-minute Pack

GL ASSESSMENT EP.V54 · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

This is a 10-minute Verbal Reasoning depth practice on logic and deduction, styled on GL Assessment 11+ multiple-choice papers. It is a third, all-new set of reasoning questions on this topic. There are 35 questions across five sections: Deductive Reasoning Statements, Ordering and Ranking, True or False from Information, Day and Time Puzzles, and Family Relationship Puzzles. Every question is worth 1 mark, for 35 marks in total. Difficulty increases through each section and across the pack as a whole, finishing with scholarship-level stretch questions that combine several reasoning steps or hinge on precise family or in-law terminology. For each question, choose the ONE best answer from the options given. No calculator is allowed. Treat every statement in a question as certainly true, however unusual it seems, and base your answer only on what is actually said, never on outside knowledge or guesswork; only choose an option such as 'cannot tell' when the information truly is not enough to be certain, not simply because working out the answer takes several steps.

Worked example (Deductive Reasoning Statements). Statement 1: Every parcel sent by next-day delivery arrives before 13:00. Statement 2: The parcel addressed to Mr Adeyemi arrived at 11:20. Which conclusion must be true? A) The parcel was sent by next-day delivery B) The parcel was not sent by next-day delivery C) All parcels arrive before 13:00 D) Cannot tell whether the parcel was sent by next-day delivery E) No parcels arrive after 13:00 **Answer: D.** Statement 1 only tells us that next-day delivery guarantees arrival before 13:00; it does not say that arriving before 13:00 guarantees next-day delivery, since an ordinary delivery could also arrive that early. The parcel arriving at 11:20 is consistent with either type of delivery, so option D is correct. Option A wrongly assumes the rule works in reverse. Option B wrongly asserts the opposite with no support. Option C restates the same illicit reverse rule as a fact about every parcel. Option E is an unsupported overgeneralisation about all deliveries. Apply this same careful approach throughout the pack, even as the sections move from deductive reasoning statements to ordering and ranking puzzles, true-or-false judgements from short passages of facts, day and time calculations, and family relationship puzzles: treat every statement as certainly true, base your answer only on what is actually said, and only choose 'cannot tell' when the information truly falls short, not simply because a question takes several steps to work through.

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SECTION 1: DEDUCTIVE REASONING STATEMENTS (6 minutes, 7 questions)

1 Each question gives two or three short statements. Treat every statement as certainly true, however unusual it seems, and choose the ONE conclusion that must follow.

Q1. In the science block at Ashcombe School, every tap is colour-coded: cold taps are marked blue and hot taps are marked red. Every sink in Lab 3 has exactly one blue tap and one red tap. Which of the following must be true?

- ☐ A) All taps in the school are painted blue
- ☐ B) Some taps in Lab 3 are not colour-coded
- ☐ C) Every sink in Lab 3 has two hot taps
- ☐ D) No sinks in Lab 3 have a red tap
- ☐ E) Every sink in Lab 3 has a cold tap

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2 (ORDERING AND RANKING) Q10. Beatrice is younger than Callan. Dara is older than Beatrice. Dara is younger than Callan. Who is the oldest?

- ☐ A) Callan
- ☐ B) Cannot tell
- ☐ C) Dara
- ☐ D) Beatrice and Dara are the same age
- ☐ E) Beatrice

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3 (ORDERING AND RANKING) Q11. Five pupils are standing in a line to have their photo taken: Esme, Farid, Grace, Harvey and Ines. Esme is at the front. Grace is exactly in the middle. Harvey is directly behind Grace. Farid is directly behind Esme. Who is at the very back?

- ☐ A) Grace
- ☐ B) Ines
- ☐ C) Esme
- ☐ D) Farid
- ☐ E) Harvey

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4 (ORDERING AND RANKING) Q12. In a running race with four competitors, Liam, Joseph, Kemi and Nadia, Joseph finished immediately before Kemi. Liam finished immediately before Joseph. Kemi did not finish last. Who finished last?

- [ ] A) Joseph
- [ ] B) Liam
- [ ] C) Kemi
- [ ] D) Cannot tell
- [ ] E) Nadia

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5 (ORDERING AND RANKING) Q13. Four boxes are stacked in the store cupboard: Paper, Pens, Paint and Pins. The Paper box is directly above the Pins box. The Paint box is directly above the Paper box. The Pins box is directly above the Pens box. What is the order from top to bottom?

- [ ] A) Paper, Paint, Pins, Pens
- [ ] B) Paint, Pins, Paper, Pens
- [ ] C) Paint, Paper, Pins, Pens
- [ ] D) Pens, Pins, Paper, Paint
- [ ] E) Paint, Paper, Pens, Pins

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6 (ORDERING AND RANKING) Q14. Six runners, Aisha, Ben, Chidi, Dolly, Ewan and Faye, took part in a fun run, and no two finished in the same position. Aisha finished immediately after Ben. Faye finished last. Chidi finished immediately before Dolly. There are exactly two runners between Ben and Ewan. Ewan finished before Chidi. How many runners finished between Chidi and Ben?

- [ ] A) One
- [ ] B) Two
- [ ] C) None
- [ ] D) Three
- [ ] E) Four

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7 (ORDERING AND RANKING) Q15. Five pupils, Osei, Priya, Quinn, Reuben and Sana, are ranked after a maths quiz with no ties. Osei did not come first or last. Priya finished immediately before Quinn. Reuben finished first. Sana finished immediately after Osei. Who came last?

- ☐ A) Quinn
- ☐ B) Reuben
- ☐ C) Osei
- ☐ D) Cannot tell for certain
- ☐ E) Sana

SECTION 3: TRUE OR FALSE FROM INFORMATION (6 minutes, 7 questions)

8 Each question gives one or more facts about an everyday situation. Treat every fact as certainly true and choose the ONE statement that must be true.

Q16. Fact 1: Everest is the tallest mountain in the world.
Fact 2: Everest is in the Himalayas.
Which statement must be true?

- ☐ A) The tallest mountain in the world is in the Himalayas
- ☐ B) The Himalayas are the tallest mountain range in the world
- ☐ C) Cannot tell where the tallest mountain in the world is
- ☐ D) All mountains in the Himalayas are the tallest in the world
- ☐ E) Everest is not in the Himalayas

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9 (TRUE OR FALSE FROM INFORMATION) Q17. Fact 1: The 08:15 bus to Norwich stops at every request stop on its route.
Fact 2: Fenwick Lane is a request stop on the 08:15 bus's route.
Which statement must be true?

- ☐ A) The 08:15 bus does not stop at Fenwick Lane
- ☐ B) Every bus stops at Fenwick Lane
- ☐ C) Cannot tell whether the 08:15 bus stops at Fenwick Lane
- ☐ D) The 08:15 bus stops at Fenwick Lane
- ☐ E) Fenwick Lane is not on the 08:15 bus's route

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10 (TRUE OR FALSE FROM INFORMATION) Q18. Fact 1: Some of the plants in the greenhouse need watering every day.
Fact 2: The tomato plants are the only plants in the greenhouse that need watering every day.
Which statement must be true?

- ☐ A) All plants in the greenhouse need watering every day
- ☐ B) The tomato plants are not in the greenhouse
- ☐ C) The tomato plants need watering every day
- ☐ D) Cannot tell how often the tomato plants need watering
- ☐ E) The tomato plants do not need watering every day

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11 (TRUE OR FALSE FROM INFORMATION) Q19. Fact 1: Some pupils in Year 6 play a brass instrument.
Fact 2: Sam is a pupil in Year 6.
Which statement must be true?

- ☐ A) Sam plays a brass instrument
- ☐ B) Cannot tell whether Sam plays a brass instrument
- ☐ C) Sam does not play a brass instrument
- ☐ D) No pupils outside Year 6 play a brass instrument
- ☐ E) All pupils in Year 6 play a brass instrument

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12 (DEDUCTIVE REASONING STATEMENTS) Q2. At Ferndown Academy, every student who studies Latin also studies classics. No student who studies classics studies drama at the same time. Which of the following must be true?

- ☐ A) Some Latin students study drama
- ☐ B) No student studies both classics and Latin
- ☐ C) Every student who studies Latin does not study drama
- ☐ D) Every student who studies classics studies Latin
- ☐ E) Every student who studies drama studies Latin

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13 (TRUE OR FALSE FROM INFORMATION) Q20. Fact 1: No pupils are allowed to bring glass bottles into the sports hall.
Fact 2: Ellie brought a glass bottle into the sports hall.
Which statement must be true?

- ☐ A) Ellie was not in the sports hall
- ☐ B) Glass bottles are allowed in the sports hall on some days
- ☐ C) Ellie followed the sports hall rules
- ☐ D) Cannot tell whether Ellie followed the rules
- ☐ E) Ellie broke the sports hall rules

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Mark scheme · 3.44-3 Verbal Reasoning: Logic and Deduction Set 3: 10-minute Pack

Question 1

E) Every sink in Lab 3 has a cold tap - each sink's one blue tap is, by the colour-coding rule, a cold tap. **B1**

Answer: E) Every sink in Lab 3 has a cold tap

Question 2

A) Callan - the order Beatrice < Dara < Callan places Callan at the top. **B1**

Answer: A) Callan

Question 3

B) Ines - the order Esme, Farid, Grace, Harvey, Ines (front to back) places Ines at the back. **B1**

Answer: B) Ines

Question 4

E) Nadia - Liam, Joseph and Kemi must fill the first three places in order, since Kemi did not finish last, leaving Nadia last. **B1**

Answer: E) Nadia

Question 5

C) Paint, Paper, Pins, Pens - the three 'directly above' clues chain into one fixed order. **B1**

Answer: C) Paint, Paper, Pins, Pens

Question 6

A) One - working through all five clues gives the order Ewan, Chidi, Dolly, Ben, Aisha, Faye, with only Dolly between Chidi and Ben. **B1**

Answer: A) One

Question 7

D) Cannot tell for certain - two different valid rankings satisfy every clue, and they give different pupils in last place. **B1**

Answer: D) Cannot tell for certain

Question 8

A) The tallest mountain in the world is in the Himalayas - directly combining facts 1 and 2. **B1**

Answer: A) The tallest mountain in the world is in the Himalayas

Question 9

D) The 08:15 bus stops at Fenwick Lane - it stops at every request stop, and Fenwick Lane is one. **B1**

Answer: D) The 08:15 bus stops at Fenwick Lane

Question 10

C) The tomato plants need watering every day - fact 2 states this directly. **B1**

Answer: C) The tomato plants need watering every day

Question 11

B) Cannot tell whether Sam plays a brass instrument - fact 1 only says some Year 6 pupils play, not all, and Sam's own case is not confirmed either way. **B1**

Answer: B) Cannot tell whether Sam plays a brass instrument

Question 12

C) Every student who studies Latin does not study drama - chaining Latin -> classics -> not drama. **B1**

Answer: C) Every student who studies Latin does not study drama

Question 13

E) Ellie broke the sports hall rules - fact 1 forbids glass bottles with no exceptions, and fact 2 confirms Ellie brought one in. **B1**

Answer: E) Ellie broke the sports hall rules

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