3.21 Logic Deduction: 1-hour Pack

GL Assessment 11+ Verbal Reasoning · about 60 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

In each question you are given two or three statements. Treat every statement as TRUE, even if it seems unlikely, and use ONLY the information given (not outside knowledge or guesswork) to work out the answer. Some questions ask you to put people or things in order (for example, by height, age or speed); others give you a rule and ask what must follow from it. Read all the statements carefully before choosing your answer from options A to E. If the statements do not give enough information to be certain, choose the option that says so - do not pick the answer that merely seems likely.

Worked example. Ali is taller than Ben. Ben is taller than Cara. Who is the shortest? A) Ali B) Ben C) Cara D) Cannot tell E) Ali and Cara are the same height **Answer: C) Cara.** The two statements give a complete chain: Ali is taller than Ben, and Ben is taller than Cara. Putting this in order from tallest to shortest gives Ali, then Ben, then Cara, so Cara must be the shortest. There is enough information to be certain, so 'cannot tell' is wrong, and no equality was stated, so option E is also wrong.

1 Three cousins, Kofi, Keira and Isla, all have different weights. Kofi is lighter than Keira. Keira is heavier than Isla. Who is the heaviest?

- ☐ A) Cannot tell
- ☐ B) Kofi
- ☐ C) Isla
- ☐ D) Isla and Keira are the same
- ☐ E) Keira

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2 Four friends, Quinn, Ruby, Omar and Holly, sit in a row of 4 seats, one in each seat. The seats are numbered 1 to 4 from the left. Ruby sits somewhere to the left of Holly. Omar sits immediately to the right of Ruby. Quinn sits somewhere between Holly and Ruby. Who sits in seat 2, counting from the left?

- ☐ A) Ruby
- ☐ B) Omar
- ☐ C) Quinn
- ☐ D) Cannot tell
- ☐ E) Holly

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3 The choir, football, swimming, art and science clubs each meet on a different day, Monday to Friday. Each club meets once a week. The choir club meets on Wednesday. The choir club meets on the day after the swimming club. On which day does the swimming club meet?

- ☐ A) Tuesday
- ☐ B) Monday
- ☐ C) Friday
- ☐ D) Wednesday
- ☐ E) Thursday

---

4 Four pupils, Chloe, Ali, Tess and Liam, each like a different one of these: green, red, blue and purple. Tess likes green. Chloe likes blue. Ali does not like red. Who likes red?

- ☐ A) Chloe
- ☐ B) Tess
- ☐ C) Ali
- ☐ D) Liam
- ☐ E) Cannot tell

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5 Three neighbours, Keira, Sam and Theo, all have different amounts of money. Sam is richer than Theo. Keira is poorer than Sam. Who is the richest?

- ☐ A) Cannot tell
- ☐ B) Keira
- ☐ C) Sam
- ☐ D) Theo and Keira are the same
- ☐ E) Theo

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6 Four cousins, Ben, Molly, Luke and Olive, sit in a row of 4 seats, one in each seat. The seats are numbered 1 to 4 from the left. Luke does not sit at either end of the row. Molly sits somewhere to the left of Luke. Ben sits somewhere between Molly and Olive. Who sits in seat 4, counting from the left?

- ☐ A) Cannot tell
- ☐ B) Ben
- ☐ C) Luke
- ☐ D) Olive
- ☐ E) Molly

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7 Four children, Imran, Omar, Theo and Callum, all run at different speeds. Omar is faster than Callum. Omar is slower than Theo. Imran is faster than Callum. Who is the slowest?

- ☐ A) Imran
- ☐ B) Callum
- ☐ C) Cannot tell
- ☐ D) Theo
- ☐ E) Omar

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8 Four cousins, Beth, Joe, Sana and Will, each drink a different one of these: water, juice, tea and milk. Sana does not drink water. Sana does not drink juice. Joe does not drink milk. Who drinks tea?

- ☐ A) Will
- ☐ B) Sana
- ☐ C) Beth
- ☐ D) Joe
- ☐ E) Cannot tell

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9 Four children, Rhys, Beth, Amir and Rosa, sit in a row of 4 seats, one in each seat. The seats are numbered 1 to 4 from the left. Rosa sits somewhere to the left of Beth. Beth sits immediately to the right of Amir. Rhys does not sit in seat 4, counting from the left. Who sits in seat 3, counting from the left?

- ☐ A) Amir
- ☐ B) Beth
- ☐ C) Rosa
- ☐ D) Rhys
- ☐ E) Cannot tell

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10 Four friends, Tara, Tess, Rhys and Finn, sit in a row of 4 seats, one in each seat. The seats are numbered 1 to 4 from the left. Rhys does not sit in seat 1, counting from the left. Finn does not sit at either end of the row. Tara does not sit at either end of the row. Who sits at the far left of the row?

- ☐ A) Finn
- ☐ B) Tess
- ☐ C) Rhys
- ☐ D) Cannot tell
- ☐ E) Tara

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11 Four pupils, Amir, Holly, Cara and Lena, all have different weights. Lena is heavier than Amir. Amir is lighter than Holly. Cara is lighter than Holly. Amir is heavier than Cara. Which one of these statements must be true?

- ☐ A) Holly is heavier than Lena.
- ☐ B) Holly is lighter than Lena.
- ☐ C) Lena is lighter than Cara.
- ☐ D) Lena is heavier than Cara.
- ☐ E) Lena is lighter than Amir.

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12 Four cousins, Tara, Ravi, Grace and Freya, all run at different speeds. Ravi is slower than Tara. Ravi is faster than Freya. Tara is faster than Grace. Which one of these statements must be true?

- ☐ A) Grace is faster than Ravi.
- ☐ B) Ravi is slower than Freya.
- ☐ C) Freya is slower than Tara.
- ☐ D) Grace is slower than Ravi.
- ☐ E) Tara is slower than Ravi.

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13 The dance, football, art, cooking and swimming clubs each meet on a different day, Monday to Friday. Each club meets once a week. The art club meets on the day before or the day after the football club. The dance club meets on the day before or the day after the football club. The football club meets earlier in the week than the swimming club. The cooking club meets on the day before or the day after the swimming club. On which day does the football club meet?

- ☐ A) Tuesday
- ☐ B) Monday
- ☐ C) Friday
- ☐ D) Wednesday
- ☐ E) Thursday

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14 The dance, drama, swimming and science clubs each meet on a different day, Monday to Thursday. Each club meets once a week. The drama club meets on the day after the swimming club. The dance club meets earlier in the week than the drama club. The dance club meets earlier in the week than the science club. Which club meets on Monday?

- ☐ A) Cannot tell
- ☐ B) The science club
- ☐ C) The drama club
- ☐ D) The swimming club
- ☐ E) The dance club

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15 The cooking, chess, coding, football and science clubs each meet on a different day, Monday to Friday. Each club meets once a week. The coding club meets on the day after the cooking club. The chess club does not meet on Tuesday. The cooking club meets on a day between those of the chess club and the science club. The chess club meets on the day before or the day after the cooking club. Which club meets on Tuesday?

- ☐ A) The science club
- ☐ B) The cooking club
- ☐ C) The coding club
- ☐ D) The chess club
- ☐ E) The football club

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16 Four pupils, Ruby, Rosa, Isla and Faye, sit in a row of 4 seats, one in each seat. The seats are numbered 1 to 4 from the left. Faye sits immediately to the right of Ruby. Faye sits somewhere between Isla and Rosa. Who sits in seat 3, counting from the left?

- ☐ A) Faye
- ☐ B) Ruby
- ☐ C) Isla
- ☐ D) Rosa
- ☐ E) Cannot tell

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17 Four pupils, Raj, Ravi, Sam and Tess, are all different in how clever they are. Raj is cleverer than Sam. Tess is cleverer than Sam. Tess is less clever than Ravi. Which one of these statements must be true?

- ☐ A) Tess is cleverer than Raj.
- ☐ B) Sam is cleverer than Raj.
- ☐ C) Raj is cleverer than Ravi.
- ☐ D) Raj is less clever than Ravi.
- ☐ E) Ravi is cleverer than Sam.

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18 The choir, science, swimming, chess and drama clubs each meet on a different day, Monday to Friday. Each club meets once a week. The choir club meets on a day between those of the drama club and the swimming club. The science club does not meet on Tuesday. Which club meets on Friday?

- ☐ A) The choir club
- ☐ B) Cannot tell
- ☐ C) The science club
- ☐ D) The drama club
- ☐ E) The chess club

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19 Four friends, Nadia, Ethan, Kofi and Tess, sit in a row of 4 seats, one in each seat. The seats are numbered 1 to 4 from the left. Ethan sits in seat 3, counting from the left. Ethan sits next to Nadia. Tess sits somewhere to the left of Kofi. Which seat does Tess sit in?

- ☐ A) Seat 3
- ☐ B) Seat 2
- ☐ C) Cannot tell
- ☐ D) Seat 1
- ☐ E) Seat 4

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20 Four cousins, Chloe, Ali, Keira and Noah, sit in a row of 4 seats, one in each seat. The seats are numbered 1 to 4 from the left. Ali sits somewhere between Chloe and Keira. Ali sits immediately to the right of Chloe. Ali sits somewhere between Keira and Noah. Who sits at the far left of the row?

- ☐ A) Keira
- ☐ B) Cannot tell
- ☐ C) Ali
- ☐ D) Chloe
- ☐ E) Noah

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21 Five children, Zara, Priya, Grace, Max and Raj, all have different amounts of money. Priya is richer than Zara. Grace is richer than Priya. Raj is poorer than Max. Zara is richer than Max. Who is the second poorest?

- ☐ A) Raj
- ☐ B) Zara
- ☐ C) Max
- ☐ D) Cannot tell
- ☐ E) Priya

---

22 Three cousins, Anya, Rhys and Una, are all different in how clever they are. Anya is less clever than Rhys. Anya is cleverer than Una. Who is the cleverest?

- ☐ A) Cannot tell
- ☐ B) Rhys
- ☐ C) Una
- ☐ D) Una and Anya are the same
- ☐ E) Anya

---

23 Five children, Imran, Ali, Mia, Olive and Rosa, are all different in strength. Olive is stronger than Ali. Rosa is weaker than Mia. Rosa is stronger than Olive. Olive is weaker than Imran. Who is the second weakest?

- ☐ A) Olive
- ☐ B) Imran
- ☐ C) Cannot tell
- ☐ D) Rosa
- ☐ E) Mia

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24 Four cousins, Holly, Ella, Freya and Una, are all different in how clever they are. Freya is less clever than Una. Ella is less clever than Una. Holly is less clever than Una. Who is the cleverest?

- [ ] A) Freya
- [ ] B) Holly
- [ ] C) Ella
- [ ] D) Cannot tell
- [ ] E) Una

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25 Four friends, Amir, Dev, Neil and Ben, all run at different speeds. Amir is slower than Dev. Ben is slower than Neil. Dev is slower than Neil. Who is the fastest?

- [ ] A) Amir
- [ ] B) Neil
- [ ] C) Cannot tell
- [ ] D) Dev
- [ ] E) Ben

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26 Four neighbours, Alex, Theo, Chloe and Tom, sit in a row of 4 seats, one in each seat. The seats are numbered 1 to 4 from the left. Tom sits in seat 1, counting from the left. Chloe sits in seat 3, counting from the left. Theo sits somewhere to the left of Chloe. Who sits in seat 4, counting from the left?

- [ ] A) Tom
- [ ] B) Cannot tell
- [ ] C) Alex
- [ ] D) Chloe
- [ ] E) Theo

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27 The choir, art, football and drama clubs each meet on a different day, Monday to Thursday. Each club meets once a week. The football club meets on the day after the art club. The art club meets on Tuesday. The art club meets on the day before or the day after the drama club. Which club meets on Monday?

- [ ] A) The drama club
- [ ] B) The choir club
- [ ] C) The football club
- [ ] D) The art club
- [ ] E) Cannot tell

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28 Three children, Luke, Alex and Yusuf, are all different in strength. Alex is stronger than Yusuf. Alex is stronger than Luke. Who is the strongest?

- [ ] A) Luke
- [ ] B) Yusuf
- [ ] C) Luke and Yusuf are the same
- [ ] D) Alex
- [ ] E) Cannot tell

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29 Four neighbours, Zara, Alex, Jack and Maya, sit in a row of 4 seats, one in each seat. The seats are numbered 1 to 4 from the left. Alex sits somewhere between Jack and Zara. Maya sits immediately to the right of Alex. Which seat does Alex sit in?

- [ ] A) Seat 2
- [ ] B) Cannot tell
- [ ] C) Seat 3
- [ ] D) Seat 4
- [ ] E) Seat 1

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30 Four friends, Callum, Imran, Liam and Lena, sit in a row of 4 seats, one in each seat. The seats are numbered 1 to 4 from the left. Lena sits in seat 3, counting from the left. Callum sits next to Imran. Imran sits somewhere between Callum and Liam. Which seat does Callum sit in?

- [ ] A) Cannot tell
- [ ] B) Seat 4
- [ ] C) Seat 2
- [ ] D) Seat 1
- [ ] E) Seat 3

---

31 Four pupils, Alex, Ali, Aisha and Daisy, are all different in strength. Alex is weaker than Aisha. Aisha is stronger than Ali. Aisha is stronger than Daisy. Who is the strongest?

- [ ] A) Ali
- [ ] B) Daisy
- [ ] C) Aisha
- [ ] D) Alex
- [ ] E) Cannot tell

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32 Four pupils, Quinn, Aisha, Grace and Tara, sit in a row of 4 seats, one in each seat. The seats are numbered 1 to 4 from the left. Grace does not sit in seat 1, counting from the left. Tara sits immediately to the right of Aisha. Aisha sits somewhere to the left of Quinn. Which seat does Tara sit in?

- ☐ A) Seat 3
- ☐ B) Seat 1
- ☐ C) Seat 4
- ☐ D) Cannot tell
- ☐ E) Seat 2

---

33 Three friends, Olive, Sam and Kofi, are all different in how clever they are. Olive is less clever than Sam. Olive is less clever than Kofi. Who is the least clever?

- ☐ A) Kofi
- ☐ B) Kofi and Sam are the same
- ☐ C) Olive
- ☐ D) Sam
- ☐ E) Cannot tell

---

34 Four pupils, Ravi, Faye, Olive and Kofi, sit in a row of 4 seats, one in each seat. The seats are numbered 1 to 4 from the left. Kofi sits somewhere between Olive and Ravi. Kofi sits immediately to the right of Olive. Faye sits next to Olive. Which seat does Olive sit in?

- ☐ A) Seat 2
- ☐ B) Seat 4
- ☐ C) Seat 1
- ☐ D) Seat 3
- ☐ E) Cannot tell

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35 The science, chess, cooking and choir clubs each meet on a different day, Monday to Thursday. Each club meets once a week. The choir club meets on the day before or the day after the science club. The science club meets on the day after the cooking club. The cooking club meets on the day after the chess club. On which day does the cooking club meet?

- ☐ A) Monday
- ☐ B) Thursday
- ☐ C) Wednesday
- ☐ D) Tuesday
- ☐ E) Cannot tell

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36 Three children, Amir, Will and Luke, all run at different speeds. Will is faster than Luke. Luke is faster than Amir. Who is the slowest?

- ☐ A) Cannot tell
- ☐ B) Luke
- ☐ C) Amir
- ☐ D) Will
- ☐ E) Will and Luke are the same

---

37 Four neighbours, Dev, Freya, Raj and Will, sit in a row of 4 seats, one in each seat. The seats are numbered 1 to 4 from the left. Dev sits in seat 2, counting from the left. Freya sits in seat 4, counting from the left. Raj sits immediately to the right of Dev. Who sits at the far left of the row?

- ☐ A) Raj
- ☐ B) Freya
- ☐ C) Cannot tell
- ☐ D) Dev
- ☐ E) Will

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38 Five children, Callum, Joe, Priya, Aisha and Anya, all have different amounts of money. Callum is poorer than Anya. Aisha is richer than Priya. Anya is richer than Aisha. Callum is richer than Priya. Which one of these statements must be true?

- ☐ A) Priya is richer than Callum.
- ☐ B) Joe is poorer than Priya.
- ☐ C) Priya is richer than Anya.
- ☐ D) Anya is richer than Priya.
- ☐ E) Anya is poorer than Joe.

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39 Three friends, Kim, Kofi and Tara, are all different in strength. Kim is weaker than Kofi. Kofi is stronger than Tara. Who is the strongest?

- ☐ A) Kofi
- ☐ B) Tara and Kim are the same
- ☐ C) Cannot tell
- ☐ D) Tara
- ☐ E) Kim

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40 The coding, art, swimming and drama clubs each meet on a different day, Monday to Thursday. Each club meets once a week. The drama club meets on a day between those of the art club and the coding club. The art club meets on the day before or the day after the drama club. The art club meets on the day after the swimming club. Which club meets on Wednesday?

- ☐ A) The swimming club
- ☐ B) The drama club
- ☐ C) Cannot tell
- ☐ D) The art club
- ☐ E) The coding club

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41 Four neighbours, Theo, Beth, Sue and Joe, sit in a row of 4 seats, one in each seat. The seats are numbered 1 to 4 from the left. Beth sits somewhere to the left of Theo. Theo sits somewhere between Beth and Joe. Beth does not sit in seat 1, counting from the left. Which seat does Joe sit in?

- ☐ A) Seat 4
- ☐ B) Seat 3
- ☐ C) Cannot tell
- ☐ D) Seat 1
- ☐ E) Seat 2

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42 The science, swimming, art, drama and chess clubs each meet on a different day, Monday to Friday. Each club meets once a week. The chess club meets on Monday. The science club meets on the day before or the day after the swimming club. Which club meets on Wednesday?

- ☐ A) The art club
- ☐ B) The drama club
- ☐ C) The swimming club
- ☐ D) The science club
- ☐ E) Cannot tell

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43 Four children, Lucy, Ethan, Zara and Cara, sit in a row of 4 seats, one in each seat. The seats are numbered 1 to 4 from the left. Zara sits immediately to the right of Lucy. Lucy does not sit at either end of the row. Cara sits somewhere between Ethan and Lucy. Who sits in seat 4, counting from the left?

- ☐ A) Ethan
- ☐ B) Cannot tell
- ☐ C) Zara
- ☐ D) Cara
- ☐ E) Lucy

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44 The drama, art, cooking and science clubs each meet on a different day, Monday to Thursday. Each club meets once a week. The cooking club meets on Thursday. The science club meets on the day after the art club. The science club does not meet on Tuesday. Which club meets on Tuesday?

- ☐ A) The drama club
- ☐ B) Cannot tell
- ☐ C) The art club
- ☐ D) The cooking club
- ☐ E) The science club

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45 Four children, Lena, Josh, Chloe and Daisy, are all different in how clever they are. Lena is less clever than Daisy. Chloe is cleverer than Daisy. Josh is cleverer than Lena. Which one of these statements must be true?

- ☐ A) Josh is less clever than Daisy.
- ☐ B) Lena is cleverer than Josh.
- ☐ C) Josh is cleverer than Daisy.
- ☐ D) Josh is less clever than Chloe.
- ☐ E) Chloe is cleverer than Lena.

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46 Four neighbours, Kim, Ali, Leo and Sam, are all different heights. Sam is taller than Ali. Sam is taller than Leo. Kim is shorter than Ali. Which one of these statements must be true?

- ☐ A) Leo is taller than Sam.
- ☐ B) Sam is taller than Kim.
- ☐ C) Leo is taller than Ali.
- ☐ D) Leo is taller than Kim.
- ☐ E) Ali is taller than Leo.

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47 Aaliyah is taller than Jack. Jack is taller than Callum. Callum is not the shortest. Rhys is shorter than Callum. Rhys is taller than Zara. Who is the shortest?

- [ ] A) Zara
- [ ] B) Aaliyah
- [ ] C) Jack
- [ ] D) Callum
- [ ] E) Rhys

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48 Five friends, Ella, Molly, Jack, Leo and Omar, are all different heights. Omar is shorter than Jack. Leo is shorter than Omar. Ella is taller than Molly. Jack is shorter than Molly. Who is the tallest?

- [ ] A) Jack
- [ ] B) Leo
- [ ] C) Omar
- [ ] D) Ella
- [ ] E) Molly

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49 Four cousins, Daisy, Tom, Theo and Alex, each play a different one of these: the drums, the piano, the violin and the guitar. Theo does not play the guitar. Theo does not play the drums. Theo does not play the piano. Which one does Theo play?

- [ ] A) the guitar
- [ ] B) the piano
- [ ] C) Cannot tell
- [ ] D) the drums
- [ ] E) the violin

---

50 Three neighbours, Omar, Alex and Lucy, all run at different speeds. Alex is slower than Lucy. Omar is faster than Alex. Who is the slowest?

- [ ] A) Cannot tell
- [ ] B) Omar
- [ ] C) Lucy
- [ ] D) Alex
- [ ] E) Omar and Lucy are the same

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51 Four cousins, Grace, Sam, Zara and Tom, are all different in how clever they are. Tom is cleverer than Grace. Tom is less clever than Zara. Who is the second least clever?

- [ ] A) Cannot tell
- [ ] B) Tom
- [ ] C) Grace
- [ ] D) Zara
- [ ] E) Sam

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52 Four neighbours, Nathan, Kim, Daisy and Zara, each enjoy a different one of these: tennis, football, drawing and swimming. They each also eat a different one of these: pizza, rice, soup and pasta. The neighbour who enjoys swimming eats pasta. Kim eats pasta. Who enjoys swimming?

- [ ] A) Zara
- [ ] B) Kim
- [ ] C) Nathan
- [ ] D) Cannot tell
- [ ] E) Daisy

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53 The art, drama, dance and choir clubs each meet on a different day, Monday to Thursday. Each club meets once a week. The dance club meets on Monday. The drama club meets earlier in the week than the choir club. The choir club meets on the day after the art club. On which day does the drama club meet?

- [ ] A) Cannot tell
- [ ] B) Monday
- [ ] C) Tuesday
- [ ] D) Thursday
- [ ] E) Wednesday

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54 Four neighbours, Chloe, Tara, Pam and Rosa, sit in a row of 4 seats, one in each seat. The seats are numbered 1 to 4 from the left. Rosa sits somewhere between Chloe and Tara. Rosa sits somewhere to the left of Chloe. Pam sits somewhere to the left of Chloe. Which seat does Tara sit in?

- ☐ A) Seat 1
- ☐ B) Seat 2
- ☐ C) Cannot tell
- ☐ D) Seat 4
- ☐ E) Seat 3

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55 Four pupils, Sana, Ravi, Raj and Beth, each drink a different one of these: cocoa, milk, water and juice. They each also like a different one of these: purple, green, yellow and red. Beth drinks milk. Sana drinks juice. Ravi drinks cocoa. Which one does Raj drink?

- ☐ A) milk
- ☐ B) Cannot tell
- ☐ C) juice
- ☐ D) cocoa
- ☐ E) water

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56 Four neighbours, Anya, Amir, Una and Ella, are all different in how clever they are. Anya is less clever than Ella. Una is less clever than Amir. Anya is cleverer than Una. Who is the least clever?

- ☐ A) Una
- ☐ B) Anya
- ☐ C) Amir
- ☐ D) Cannot tell
- ☐ E) Ella

---

57 Four children, Nina, Joe, Tara and Ali, sit in a row of 4 seats, one in each seat. The seats are numbered 1 to 4 from the left. Nina sits immediately to the right of Ali. Tara does not sit at either end of the row. Ali sits somewhere to the left of Tara. Which seat does Tara sit in?

- ☐ A) Seat 4
- ☐ B) Cannot tell
- ☐ C) Seat 1
- ☐ D) Seat 3
- ☐ E) Seat 2

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58 Four neighbours, Rhys, Amir, Will and Alex, each have a different one of these: a cat, a rabbit, a dog and a parrot. Alex does not have a cat. Rhys does not have a dog. Amir has a rabbit. Which one does Alex have?

- [ ] A) a cat
- [ ] B) Cannot tell
- [ ] C) a rabbit
- [ ] D) a dog
- [ ] E) a parrot

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59 Four cousins, Hana, Lena, Freya and Max, are all different heights. Max is taller than Hana. Lena is taller than Max. Max is taller than Freya. Which one of these statements must be true?

- [ ] A) Hana is shorter than Lena.
- [ ] B) Freya is shorter than Hana.
- [ ] C) Max is shorter than Freya.
- [ ] D) Freya is taller than Hana.
- [ ] E) Lena is shorter than Freya.

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60 Four cousins, Una, Rhys, Noah and Anya, all run at different speeds. Anya is faster than Rhys. Una is faster than Noah. Noah is faster than Rhys. Which one of these statements must be true?

- [ ] A) Una is faster than Anya.
- [ ] B) Rhys is faster than Una.
- [ ] C) Rhys is slower than Una.
- [ ] D) Anya is faster than Noah.
- [ ] E) Noah is faster than Anya.

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61 Three cousins, Ravi, Alex and Rhys, all run at different speeds. Ravi is faster than Rhys. Alex is faster than Rhys. Who is the slowest?

- [ ] A) Alex
- [ ] B) Cannot tell
- [ ] C) Ravi
- [ ] D) Rhys
- [ ] E) Rhys and Alex are the same

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62 Four friends, Omar, Rosa, Neil and Imran, sit in a row of 4 seats, one in each seat. The seats are numbered 1 to 4 from the left. Neil sits somewhere to the left of Omar. Imran does not sit in seat 4, counting from the left. Rosa sits immediately to the right of Omar. Which seat does Omar sit in?

- ☐ A) Seat 3
- ☐ B) Cannot tell
- ☐ C) Seat 1
- ☐ D) Seat 4
- ☐ E) Seat 2

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63 Four cousins, Freya, Amir, Luke and Kim, all have different weights. Freya is heavier than Kim. Luke is lighter than Kim. Freya is lighter than Amir. Who is the second lightest?

- ☐ A) Luke
- ☐ B) Amir
- ☐ C) Freya
- ☐ D) Cannot tell
- ☐ E) Kim

---

64 Four cousins, Ben, Liam, Eli and Nadia, are all different in how clever they are. Eli is cleverer than Nadia. Ben is less clever than Nadia. Liam is cleverer than Eli. Who is the second least clever?

- ☐ A) Eli
- ☐ B) Liam
- ☐ C) Nadia
- ☐ D) Cannot tell
- ☐ E) Ben

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65 The chess, swimming, coding, art and dance clubs each meet on a different day, Monday to Friday. Each club meets once a week. The art club meets on the day before or the day after the dance club. The dance club meets earlier in the week than the art club. The coding club meets earlier in the week than the dance club. The chess club meets on a day between those of the art club and the swimming club. The coding club meets on a day between those of the dance club and the swimming club. Which club meets on Thursday?

- ☐ A) The swimming club
- ☐ B) The art club
- ☐ C) The chess club
- ☐ D) The dance club
- ☐ E) The coding club

---

66 Three cousins, Eli, Nina and Faye, all have different amounts of money. Eli is richer than Nina. Eli is poorer than Faye. Who is the poorest?

- ☐ A) Cannot tell
- ☐ B) Eli
- ☐ C) Faye
- ☐ D) Nina and Faye are the same
- ☐ E) Nina

---

67 Four pupils, Nadia, Ben, Yusuf and Nina, sit in a row of 4 seats, one in each seat. The seats are numbered 1 to 4 from the left. Nina sits in seat 2, counting from the left. Nadia sits in seat 3, counting from the left. Who sits in seat 4, counting from the left?

- ☐ A) Cannot tell
- ☐ B) Yusuf
- ☐ C) Ben
- ☐ D) Nina
- ☐ E) Nadia

---

68 Four children, Jade, Will, Faye and Kofi, are all different heights. Will is shorter than Jade. Kofi is shorter than Will. Faye is taller than Kofi. Which one of these statements must be true?

- ☐ A) Jade is shorter than Will.
- ☐ B) Jade is taller than Faye.
- ☐ C) Kofi is taller than Will.
- ☐ D) Jade is taller than Kofi.
- ☐ E) Will is taller than Faye.

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69 Four children, Sana, Nadia, Theo and Jack, are all different in strength. Nadia is weaker than Sana. Theo is stronger than Sana. Theo is weaker than Jack. Who is the strongest?

- ☐ A) Sana
- ☐ B) Jack
- ☐ C) Theo
- ☐ D) Cannot tell
- ☐ E) Nadia

---

70 Four neighbours, Anya, Yusuf, Alex and Leo, all run at different speeds. Alex is slower than Leo. Leo is faster than Yusuf. Anya is faster than Leo. Who is the fastest?

- ☐ A) Yusuf
- ☐ B) Cannot tell
- ☐ C) Leo
- ☐ D) Alex
- ☐ E) Anya

---

71 Four pupils, Molly, Hana, Neil and Leo, sit in a row of 4 seats, one in each seat. The seats are numbered 1 to 4 from the left. Molly sits somewhere to the left of Hana. Neil sits in seat 2, counting from the left. Hana sits somewhere to the left of Leo. Who sits in seat 3, counting from the left?

- ☐ A) Hana
- ☐ B) Neil
- ☐ C) Cannot tell
- ☐ D) Leo
- ☐ E) Molly

---

72 Four friends, Maya, Hana, Faye and Zara, sit in a row of 4 seats, one in each seat. The seats are numbered 1 to 4 from the left. Maya sits immediately to the right of Faye. Maya sits somewhere between Faye and Zara. Zara sits immediately to the right of Hana. Who sits in seat 4, counting from the left?

- ☐ A) Hana
- ☐ B) Maya
- ☐ C) Zara
- ☐ D) Faye
- ☐ E) Cannot tell

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73 Four neighbours, Imran, Ruby, Una and Luke, all have different amounts of money. Imran is richer than Luke. Imran is poorer than Una. Luke is poorer than Ruby. Imran is poorer than Ruby. Which one of these statements must be true?

- ☐ A) Ruby is poorer than Luke.
- ☐ B) Imran is richer than Ruby.
- ☐ C) Una is poorer than Ruby.
- ☐ D) Una is richer than Luke.
- ☐ E) Ruby is poorer than Una.

---

74 Four pupils, Amir, Tom, Ali and Ravi, sit in a row of 4 seats, one in each seat. The seats are numbered 1 to 4 from the left. Amir sits next to Ravi. Amir sits somewhere to the left of Ali. Ravi sits in seat 3, counting from the left. Who sits in seat 2, counting from the left?

- ☐ A) Ravi
- ☐ B) Amir
- ☐ C) Tom
- ☐ D) Ali
- ☐ E) Cannot tell

---

75 Statement 1: All the sunflowers in the garden are tall.
Statement 2: Every tall plant in the garden has a stake.
Which conclusion must be true?

- ☐ A) Some of the sunflowers in the garden do not have a stake.
- ☐ B) All the plants with a stake in the garden are sunflowers.
- ☐ C) Cannot tell
- ☐ D) No tall plant in the garden is a sunflower.
- ☐ E) All the sunflowers in the garden have a stake.

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76 Statement 1: Either Kit or Lena took the last biscuit, but not both of them.
Statement 2: Kit did not take the last biscuit.
Which conclusion must be true?

- ☐ A) Kit took the last biscuit.
- ☐ B) Cannot tell
- ☐ C) Neither of them took the last biscuit.
- ☐ D) Both of them took the last biscuit.
- ☐ E) Lena took the last biscuit.

---

77 Ravi goes to chess club on Thursday. He plays football on the day before chess club. He goes swimming two days after he plays football. On which day does Ravi go swimming?

- ☐ A) Friday
- ☐ B) Wednesday
- ☐ C) Cannot tell
- ☐ D) Saturday
- ☐ E) Thursday

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Mark scheme · 3.21 Logic Deduction: 1-hour Pack

Question 1

E) Keira - putting the clues together, only Keira fits **B1**

Answer: E) Keira

Question 2

B) Omar - putting the clues together, only Omar fits **B1**

Answer: B) Omar

Question 3

A) Tuesday - putting the clues together, only Tuesday fits **B1**

Answer: A) Tuesday

Question 4

D) Liam - putting the clues together, only Liam fits **B1**

Answer: D) Liam

Question 5

C) Sam - putting the clues together, only Sam fits **B1**

Answer: C) Sam

Question 6

D) Olive - putting the clues together, only Olive fits **B1**

Answer: D) Olive

Question 7

B) Callum - putting the clues together, only Callum fits **B1**

Answer: B) Callum

Question 8

E) Cannot tell - the clues leave more than one answer possible, so it cannot be decided **B1**

Answer: E) Cannot tell

Question 9

A) Amir - putting the clues together, only Amir fits **B1**

Answer: A) Amir

Question 10

B) Tess - putting the clues together, only Tess fits **B1**

Answer: B) Tess

Question 11

D) Lena is heavier than Cara. - this is the only statement that is true however the clues are arranged **B1**

Answer: D) Lena is heavier than Cara.

Question 12

C) Freya is slower than Tara. - this is the only statement that is true however the clues are arranged **B1**

Answer: C) Freya is slower than Tara.

Question 13

A) Tuesday - putting the clues together, only Tuesday fits **B1**

Answer: A) Tuesday

Question 14

E) The dance club - putting the clues together, only The dance club fits **B1**

Answer: E) The dance club

Question 15

B) The cooking club - putting the clues together, only The cooking club fits **B1**

Answer: B) The cooking club

Question 16

A) Faye - putting the clues together, only Faye fits **B1**

Answer: A) Faye

Question 17

E) Ravi is cleverer than Sam. - this is the only statement that is true however the clues are arranged **B1**

Answer: E) Ravi is cleverer than Sam.

Question 18

B) Cannot tell - the clues leave more than one answer possible, so it cannot be decided **B1**

Answer: B) Cannot tell

Question 19

D) Seat 1 - putting the clues together, only Seat 1 fits **B1**

Answer: D) Seat 1

Question 20

E) Noah - putting the clues together, only Noah fits **B1**

Answer: E) Noah

Question 21

C) Max - putting the clues together, only Max fits **B1**

Answer: C) Max

Question 22

B) Rhys - putting the clues together, only Rhys fits **B1**

Answer: B) Rhys

Question 23

A) Olive - putting the clues together, only Olive fits **B1**

Answer: A) Olive

Question 24

E) Una - putting the clues together, only Una fits **B1**

Answer: E) Una

Question 25

B) Neil - putting the clues together, only Neil fits **B1**

Answer: B) Neil

Question 26

C) Alex - putting the clues together, only Alex fits **B1**

Answer: C) Alex

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Question 27

A) The drama club - putting the clues together, only The drama club fits **B1**

Answer: A) The drama club

Question 28

D) Alex - putting the clues together, only Alex fits **B1**

Answer: D) Alex

Question 29

A) Seat 2 - putting the clues together, only Seat 2 fits **B1**

Answer: A) Seat 2

Question 30

D) Seat 1 - putting the clues together, only Seat 1 fits **B1**

Answer: D) Seat 1

Question 31

C) Aisha - putting the clues together, only Aisha fits **B1**

Answer: C) Aisha

Question 32

E) Seat 2 - putting the clues together, only Seat 2 fits **B1**

Answer: E) Seat 2

Question 33

C) Olive - putting the clues together, only Olive fits **B1**

Answer: C) Olive

Question 34

A) Seat 2 - putting the clues together, only Seat 2 fits **B1**

Answer: A) Seat 2

Question 35

D) Tuesday - putting the clues together, only Tuesday fits **B1**

Answer: D) Tuesday

Question 36

C) Amir - putting the clues together, only Amir fits **B1**

Answer: C) Amir

Question 37

E) Will - putting the clues together, only Will fits **B1**

Answer: E) Will

Question 38

D) Anya is richer than Priya. - this is the only statement that is true however the clues are arranged **B1**

Answer: D) Anya is richer than Priya.

Question 39

A) Kofi - putting the clues together, only Kofi fits **B1**

Answer: A) Kofi

Question 40

B) The drama club - putting the clues together, only The drama club fits **B1**

Answer: B) The drama club

Question 41

A) Seat 4 - putting the clues together, only Seat 4 fits **B1**

Answer: A) Seat 4

Question 42

E) Cannot tell - the clues leave more than one answer possible, so it cannot be decided **B1**

Answer: E) Cannot tell

Question 43

C) Zara - putting the clues together, only Zara fits **B1**

Answer: C) Zara

Question 44

C) The art club - putting the clues together, only The art club fits **B1**

Answer: C) The art club

Question 45

E) Chloe is cleverer than Lena. - this is the only statement that is true however the clues are arranged **B1**

Answer: E) Chloe is cleverer than Lena.

Question 46

B) Sam is taller than Kim. - this is the only statement that is true however the clues are arranged **B1**

Answer: B) Sam is taller than Kim.

Question 47

A) Zara - the order Aaliyah > Jack > Callum > Rhys > Zara places Zara last **B1**

Answer: A) Zara

Question 48

D) Ella - putting the clues together, only Ella fits **B1**

Answer: D) Ella

Question 49

E) the violin - putting the clues together, only the violin fits **B1**

Answer: E) the violin

Question 50

D) Alex - putting the clues together, only Alex fits **B1**

Answer: D) Alex

Question 51

A) Cannot tell - the clues leave more than one answer possible, so it cannot be decided **B1**

Answer: A) Cannot tell

Question 52

B) Kim - putting the clues together, only Kim fits **B1**

Answer: B) Kim

Question 53

C) Tuesday - putting the clues together, only Tuesday fits **B1**

Answer: C) Tuesday

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Question 54

C) Cannot tell - the clues leave more than one answer possible, so it cannot be decided **B1**

Answer: C) Cannot tell

Question 55

E) water - putting the clues together, only water fits **B1**

Answer: E) water

Question 56

A) Una - putting the clues together, only Una fits **B1**

Answer: A) Una

Question 57

D) Seat 3 - putting the clues together, only Seat 3 fits **B1**

Answer: D) Seat 3

Question 58

B) Cannot tell - the clues leave more than one answer possible, so it cannot be decided **B1**

Answer: B) Cannot tell

Question 59

A) Hana is shorter than Lena. - this is the only statement that is true however the clues are arranged **B1**

Answer: A) Hana is shorter than Lena.

Question 60

C) Rhys is slower than Una. - this is the only statement that is true however the clues are arranged **B1**

Answer: C) Rhys is slower than Una.

Question 61

D) Rhys - putting the clues together, only Rhys fits **B1**

Answer: D) Rhys

Question 62

A) Seat 3 - putting the clues together, only Seat 3 fits **B1**

Answer: A) Seat 3

Question 63

E) Kim - putting the clues together, only Kim fits **B1**

Answer: E) Kim

Question 64

C) Nadia - putting the clues together, only Nadia fits **B1**

Answer: C) Nadia

Question 65

D) The dance club - putting the clues together, only The dance club fits **B1**

Answer: D) The dance club

Question 66

E) Nina - putting the clues together, only Nina fits **B1**

Answer: E) Nina

Question 67

A) Cannot tell - the clues leave more than one answer possible, so it cannot be decided **B1**

Answer: A) Cannot tell

Question 68

D) Jade is taller than Kofi. - this is the only statement that is true however the clues are arranged **B1**

Answer: D) Jade is taller than Kofi.

Question 69

B) Jack - putting the clues together, only Jack fits **B1**

Answer: B) Jack

Question 70

E) Anya - putting the clues together, only Anya fits **B1**

Answer: E) Anya

Question 71

A) Hana - putting the clues together, only Hana fits **B1**

Answer: A) Hana

Question 72

C) Zara - putting the clues together, only Zara fits **B1**

Answer: C) Zara

Question 73

D) Una is richer than Luke. - this is the only statement that is true however the clues are arranged **B1**

Answer: D) Una is richer than Luke.

Question 74

B) Amir - putting the clues together, only Amir fits **B1**

Answer: B) Amir

Question 75

E) All the sunflowers in the garden have a stake. - Every sunflower is tall and every tall plant has a stake, so every sunflower has a stake. **B1**

Answer: E) All the sunflowers in the garden have a stake.

Question 76

E) Lena took the last biscuit. - One of them took the biscuit and it was not Kit, so Lena took it. **B1**

Answer: E) Lena took the last biscuit.

Question 77

A) Friday - Chess club is on Thursday, so football is on Wednesday. Swimming is two days after Wednesday, which is Friday. **B1**

Answer: A) Friday

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