

Reasoning Aptitude

Seating Arrangement

Just like other questions of reasoning, there is no hard and fast rule on how solve these questions. Practice is the only key to master these questions.

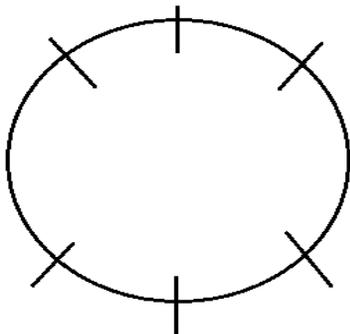
Firstly, how to deal with questions on seating arrangement. First thing first, if a question says that a person is sitting on the right hand side corner, then it means your right hand which is different from the right hand of the sitters. But if question says that A is sitting on the right of B, then it means that right of the person or the seating arrangement. Another common mistake which students tend to commit is that if a question says that A is sitting on the left of B, then it does not mean immediate left rather it means somewhere in the left of B and thus we cannot conclude that A and B are sitting together with B on the left of A. Rather in most of questions, when data refers that A is left of B, then generally is not immediate left and it is used as a good trap and generally student fall in the trap.

Generally the questions on seating arrangement appear in the papers as a set of three to four questions and it does make a sense to spend some time on the complete set before actually jumping on the questions. While solving the questions, student should start with making a diagram depicting the positions of all the possible arrangement as per the requirement of the data and then he should start satisfying all the conditions by putting up the right persons on the right places as per the requirement of the question. Let us understand this with the help of given question.

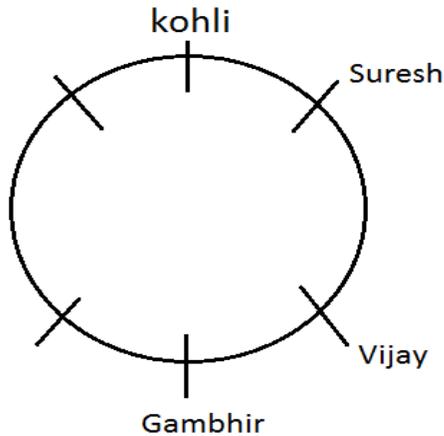
Example

- 6 Boys are sitting in a circle and facing towards the centre of the circle.
- Sehwag is sitting to the right of Sachin but he is not just at the left of Vijay.
- Suresh is between Kohli and Vijay.
- Gambhir is sitting to the left of Vijay.

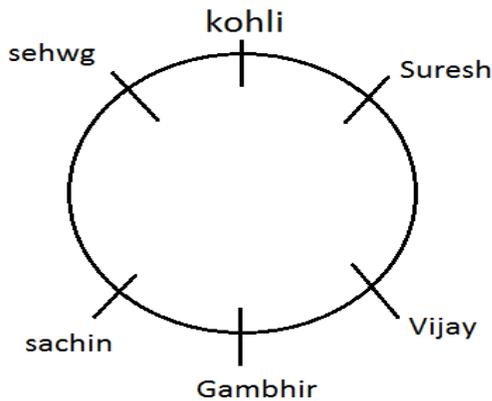
In this question, first we will realize that there need to be circular table with six seats around this. So initially, we have to make a table with six chairs around it as



In the next step, Suresh is in between Kohli and Vijay, which means it can be either Kohli Suresh Vijay or Vijay Suresh Kohli but as soon as we realize that Gambhir is sitting to the left of Vijay, second possibility is removed and we get their arrangement as Kohli Suresh Vijay Gambhir. Let us put these players in the figure as follows



Now, coming to the second condition, Sachin is sitting to the right of Sehwag. An then the final seating arrangement can be obtained as follows



Now, once we have got this figure, we have got the seating arrangement of each and every man. Now irrespective of how many questions are being asked in the question, we shall be able to answer all the questions in no time.

Now let us look into another question on seating arrangement wherein some students are sitting in a straight line.

Example:

Eleven students A, B, C, D, E, F, G, H, I, J and K are sitting in first line facing to the teacher.

D, who is just to the left of F, is to the right of C at second place.

A is second to the right of E who is at one end.

J is the nearest neighbor of A and B and is to the left of G at third place.

H is next to D and is at the third place to the right of I

In this question all the students are sitting in a straight line. So let us start with assuming eleven chairs in a straight line. D is just left of F means that these two should make D F. Now, realizing D is second to the right of C, we get their arrangement as C _ D F.

Now coming to third statement, we realize that E is at one of the ends and A is second to the right of E. thus we get left end as E _ A. from the next statement, we realize that J is sitting in between A and B which extend left end as E _ A J B. Now, realizing that J is to the left of G at the third position, we get left end as E _ A J B _ G.

Now, coming to the last statement, H is next to D, our initial arrangement get filled in form of C H D F. now realizing that H is third to right of I, our combination becomes I _ C H D F.

Now, combining both the arrangements, we get total seating arrangement as E _ A J B I G C H D F. now, only person left to be arranged is K and there is only one place to be filled. Thus overall arrangement of these eleven students comes out to be as E K A J B I G C H D F.

Again once, we have got the complete seating arrangement, any question on this arrangement can easily be solved without consuming much of a time. Thus in all these seating arrangement questions, it does make a sense to devote some time in solving the questions and then finally answering the question, does not take much of a time.

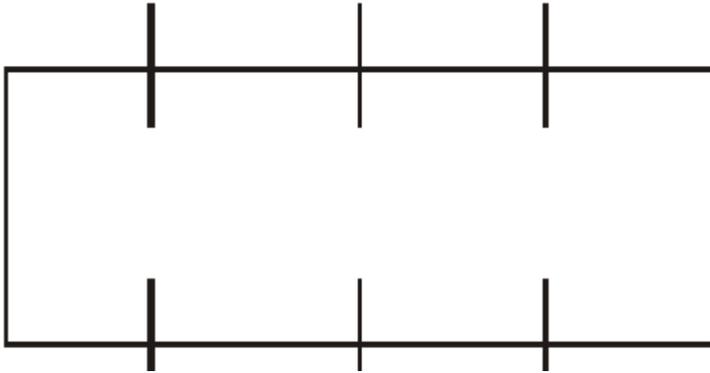
Now coming to another typical type of seating arrangement, wherein certain number of persons is sitting against certain number of persons on a rectangular table facing each other.

Example:

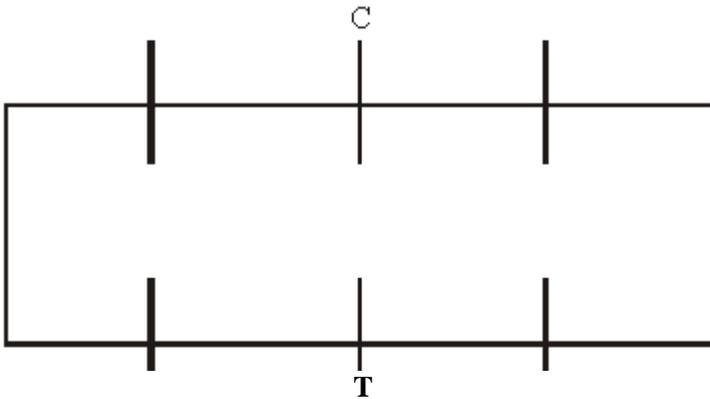
- A, B and C are three boys while R, S and T are three girls. They are sitting such that the boys are facing the girls.
- A and R are diagonally opposite to each other.
- C is not sitting at any of the ends.
- T is left to R but opposite to C.

Reasoning Aptitude

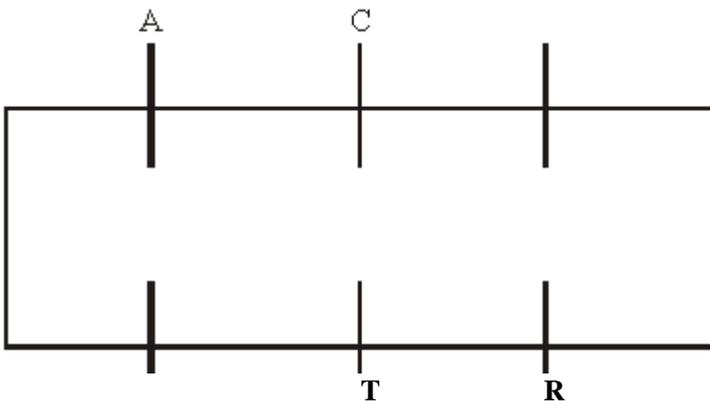
In this question, firstly we need to assume and draw a rectangular table with three chairs on each side something like this



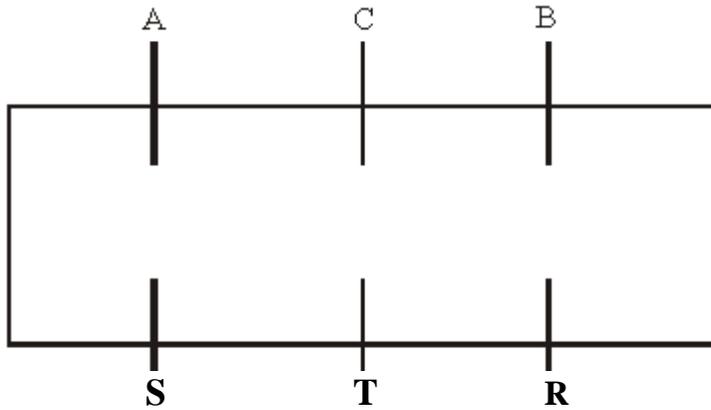
Now, if we look at the third statement, we will realize that C is sitting at center of one of the sides of the table and according to the fourth statement, T is sitting opposite to C. These points can be plotted on the rectangular table something like this



Now, combining second and fourth statement together we will realize that T is on the left of R and A is diagonally opposite to R. these points can also be placed on the figure to improve the figure to the next level like this



Finally, all the unplotted members can be plotted in the figure as there is only one boy and one girl left to be put in the diagram and there is only one position for both of them. And final seating arrangement will come out to be something like this



Now, practice the following questions to gauge your level of understanding of the complete topic.

Directions for questions 1 & 2: Five friends Amitabh, Dharmendra, Sashi, Amjad and Sanjeev are carrying apples from their home to the market. Everyone works till the task is completed. Also their speeds are the same. Sashi can carry 5 kgs more than Sanjeev. Sanjeev cannot carry more than Amitabh. Dharmendra can carry twice the weight than Amjad can, who can carry 4 kgs less than Sashi. Weights carried by them do not take fractional values.

- Who carries the least weight?
 - Sanjeev
 - Sashi
 - Amjad
 - Data Insufficient
- If Sashi and Dharmendra can carry equal weight, how much can both of them carry together in a single trip?
 - 4 kgs
 - 8 kgs
 - 16 kgs
 - 32 kgs

Directions for questions 3 to 8: Akhil invites some of his friends along with their wives for a party at his house. There are 2 tables, rectangular and circular in his house. Prateek, Quadir, Roshan, Santosh, Tarun and Utpal comes with their wives Arshy, Bindu, Chaya, Deepika, Elena and Falguni. They are to be seated at the two tables and six persons can be seated on each of the tables. One person sits at the shorter length of the rectangular table and 2 persons sit at the larger length of the table. The following conditions apply:

- Prateek, Quadir and Arshy, Bindu sit at the rectangular table.
- Tarun, Elena and Utpal always sit together.
- Chaya and Deepika sit opposite each other; Elena and Falguni sit opposite each other.
- Deepika and Elena sit at the same table.

3. Which of the following does not sit at the rectangular table?
(a) Roshan (b) Prateek
(c) Santosh (d) Utpal

4. Who is sitting to the right of Tarun?
(a) Chaya (b) Deepika
(c) Elena (d) Cannot be determined

5. If Chaya is sitting to the right of Tarun and Falguni to his left, who is sitting to the left of Falguni?
(a) Roshan (b) Deepika
(c) Utpal (d) Cannot be determined

6. If Prateek sits opposite Quadir who sits to the left of Bindu who sits to the left of Arshy. Who sits opposite Bindu?
(a) Tarun (b) Santosh
(c) Roshan (d) Cannot be determined

7. If Santosh sits opposite to Bindu, who sits to the left of Quadir? (refers to the data in the previous question)
(a) Arshy (b) Santosh
(c) Prateek (d) Roshan

8. Six girls are seated in row on chairs. Manyata has two girls seated to one of her sides. Chaya is seated between Sarika and Katrina. Priyanka sits to the extreme right. If Neelam is the sixth girl, which chair she sit on, if chairs are numbered '1' to '6' starting from the left.
(a) 4 (b) 5
(c) None (d) Cannot be determined

Directions for questions 9 to 11: The lectures of a class are to be scheduled. Eight teachers are to take a lecture each.

- I. Falguni and Neha deliver their lectures after Chaya. Only one person delivers a lecture between Chaya's and Falguni's lectures.
 - II. Falguni does not deliver the fifth from the last lecture.
 - III. Suhani delivers the first lecture.
 - IV. Elena delivers a lecture immediately before or after Neha's lecture.
 - V. Ishita delivers a lecture immediately before or after Falguni's lecture.
 - VI. Deepika can only take lecture after 2 lectures of Chaya. Mandakini can deliver any of the lectures.
-
9. If Elena delivers the seventh lecture, who delivers the last lecture?
(a) Elena (b) Chaya
(c) Neha (d) Cannot be determined

 10. Who delivers the fifth from last lecture?
(a) Neha (b) Ishita
(c) Elena (d) Deepika

11. The third lecture is delivered by.....
- (a) Chaya (b) Mandakini
(c) Neha (d) Ishita

Directions for questions 12 to 16: Four boys Amitabh, Bobby, Chetan and Dharmendra; and four girls Mandakini, Nargis, Ojasvi and Priyanka are sitting such that between every two boys there is one girl. Mandakini sits at one end and Dharmendra at the other. Bobby sits next to Priyanka and to her right.

12. If Dharmendra sits next to Priyanka and to her left, and Mandakini and Ojasvi are one seat away from each other, who is sitting between Ojasvi and Nancy?
- (a) Chetan (b) Amitabh
(c) Bobby (d) Amitabh or Chetan
13. If Dharmendra sits next to Priyanka to her left and Nargis and Ojasvi are one seat away from each other, who is sitting between Amitabh and Chetan?
- (a) Ojasvi (b) Nargis
(c) Priyanka (d) Ojasvi or Nargis
14. If Dharmendra and Bobby sit one seat away from each other, then which of the following must be true?
- (a) Mandakini and Priyanka are sitting on alternate seats.
(b) Priyanka sits between Dharmendra and Bobby.
(c) Mandakini and Priyanka cannot sit on alternate seats.
(d) Priyanka cannot sit between Dharmendra and Bobby.
15. If Priyanka and Mandakini are sitting on alternate seats then:
- (a) 3 people are sitting between Dharmendra and Bobby.
(b) 3 or more people are sitting between Dharmendra and Bobby.
(c) Bobby is to the left of Dharmendra, although they are not sitting on alternate seats.
(d) 5 people are sitting between Dharmendra and Mandakini.
16. If Bobby sits one seat away from Amitabh on one side and Chetan on the other side, then
- (a) Priyanka and Marry are on alternate seats.
(b) Priyanka sits between Chetan and Bobby.
(c) Bobby sits between Priyanka and Nargis.
(d) None of the above.

Directions for questions 17 to 20: Six boys - A, B, C, D, E and F and 2 girls - P and Q occupy seats on a rectangular dining table with four on one side and four on other. The chairs are numbered from 1 to 8 in a clockwise direction.

Below are some additional information given about their seating arrangement.

- I. The two girls are on opposite sides of the table but they are not sitting exactly opposite to each other. Also neither of them is sitting on a corner seat.
- II. B and D are sitting on diagonally opposite corner seats.
- III. F is on seat no. 4.
- IV. A and C are on the same side but not adjacent to each other.

Based on this information answers the following questions:

17. Which seat does E occupy?
(a) 2 (b) 8
(c) 7 (d) 3
18. If C and P are on opposite sides, which seat does Q occupy?
(a) 2 (b) 3
(c) 7 (d) Cannot be determined
19. Who occupies seat no. 8?
(a) C (b) A
(c) E (d) Cannot be determined
20. Which of the following pairs can never sit adjacent to each other?
(a) E and Q (b) A and P
(c) D and Q (d) F and P

Directions for questions 21 to 24: 8 friends A, B, C, D, E, F, G and H are sitting around a circular table facing centre. A and B never sit together. D and F always sit together. E sits third to the right of D and second to the left of B. G is diametrically opposite to A. One person sits between G and H.

21. Who sits second to the left of D?
(a) D (b) G
(c) E (d) A
22. Who sits between E and B?
(a) A (b) G
(c) H (d) C
23. If all the persons are arranged in ascending order of their names, with A sitting on its own place and in clockwise direction, then, how many people will not have to change their places?
(a) 0 (b) 1
(c) 2 (d) 3
24. Who is sitting diametrically opposite to H?
(a) A (b) F
(c) D (d) C

Directions for questions 25 and 26: There are 6 chairs kept around a circular chair. 2 boys and 2 girls are to be seated there. No girl want to sit beside a boy.

- C doesn't want to sit beside A.
 - D is a girl and sits in front of A.
25. Who is sitting third to the left of the one sitting to the right of D?
(a) C (b) B
(c) A (d) Empty Chair

26. Who is the second girl?

- (a) C (b) A
(c) B (d) Either C or A.

Directions for questions 27 and 28: In a hexagon if 6 people (A, B, C, D, E, F) are made to sit on its five edges such that

- A is immediate left to C who is opposite to B.
- E sits third to the left of A.
- D sits between A and B.

27. Where does F sit?

- (a) Between B and E
(b) Second to the left of A
(c) Next to the right of C
(d) Opposite to E

28. Which of the following statements are correct?

- A. 3 people are sitting in between B and A.
B. D and E are adjacent to each other.
C. The person who is third to the left of C is sitting opposite to the one who is second to the right of
D. If all the persons are made to sit alphabetically in order starting from A keeping

Directions for questions 29 to 33 : Read the following information carefully and answer the questions given below:

There are Six friends U, V, W, X, Y and Z are sitting around a circular table facing towards the centre of table in the college canteen. All of them have ordered different items (Pakoda, Samosa, Dosa, Dhokla, Kachori and Paratha) to eat. All of them wearing Caps of different colours, i.e. orange, pink, black, white, green and blue. Not in the same order

- I. The persons who are in black and green Caps have neither ordered for Pakoda nor for Dosa.
II. The persons who have ordered for Pakoda, Dosa and Kachori are neither in orange Cap nor in pink.
III. The only person who is between Y and Z eats Samosa. The person who is on the left side of the person in orange Cap does not eat Paratha.
IV. U is neither in orange Cap nor on the immediate left of the person who has ordered for Dhokla.
V. One who has ordered for Pakoda is seated opposite to the person wearing blue Cap, while the person whose Cap is of black colour is on the left of the person who has ordered for Kachori.
VI. X has ordered for Dhokla and the colour of his Cap is black. He is facing the person who has ordered for Samosa.
VII. W has not ordered for Dosa while Z has not ordered for Pakoda.
VIII. One who has ordered for Paratha is on the immediate right of the person in orange Cap but on the immediate left of the person who has ordered for Dosa.

29. Who among the following is in orange Cap?
(a) U (b) Z
(c) W (d) V
30. The only person, who is between Y and X, is wearing Cap of the colour
(a) white (b) blue
(c) pink (d) green
31. Who among the following has ordered for Kachori?
(a) U (b) V
(c) Z (d) W
32. Which of the following is correctly matched?
(a) X- green-Dhokla (b) W-white-Dosa
(c) Y-white-Pakoda (d) A-pink-Kachori
33. The person who has ordered for prantha is wearing cap of which colour ?
(a) green (b) white
(c) orange (d) pink

Directions for questions 34 to 36 : Seven sprinters Amit, Boman, Chetan, Deep, Ehsan, Furkan and Gopal are standing in a line. Gopal is to the left of Boman and to the right of Deep. Amit is on the right of Chetan. Amit and Deep have one sprinter between them. Ehsan and Boman have two sprinters between them. There are two sprinters between Deep and Furkan.

34. Who is on the extreme right?
(a) Gopal (b) Anmit
(c) Furkan (d) Ehsan
35. Who is exactly in the middle?
(a) Ehsan (b) Furkan
(c) Deep (d) Gopal
36. Who is on the extreme left?
(a) Ehsan (b) Deep
(c) Chetan (d) Boman

Directions for questions 37 to 40 : Six students U, V, W, X, Y and Z are standing in a line having back towards south. W is standing between U and Y. X is not standing at the end. Y is standing immediate left to V. Z is not standing at the right end.

37. How many persons are standing to the right of X?
(a) One (b) Two
(c) Three (d) Four
38. Which of the following pairs is standing to one side of X?
(a) YZ (b) UV
(c) UZ (d) None of these

39. Who is immediate left of W?
(a) V (b) U
(c) Either Z or V (d) Cannot be determined
40. Who is standing at the right end?
(a) W (b) V
(c) X (d) Cannot be determined

Directions for questions 41 to 36 : Study the given information carefully and answer the questions that follow

- I. Alok, Baljeet, Chandu, Damodar, Eshwar, Fardeen and Ganpat are sitting and all of them are facing east.
II. Damodar is on the immediate left of Chandu.
III. Ehsan is having Baljeet as neighbour who is sitting at an extreme end.
IV. Ganpat is sitting between Ehsan and Fardeen.
V. The person who is sitting third from the south end is Damodar.
41. Ehsan is sitting to left of whom ?
(a) Damodar (b) Baljeet
(c) Alok (d) None of these
42. Which of the following pairs of people are sitting at the extreme ends?
(a) Alok and Baljeet (b) Alok and Chandu
(c) Damodar and Baljeet (d) Ehsan and Damodar
43. Name the person who should change place with Chandu such that he gets the third place from the north end.
(a) Alok (b) Damodar
(c) Ganpat (d) Fardeen
44. Immediately between which of the following pairs of people is Damodar sitting?
(a) Alok and Chandu (b) Alok and Fardeen
(c) Ehsan and Fardeen (d) Chandu and Fardeen
45. Which of the conditions (i) to (v) given above is not required to find out the place in which Alok is sitting?
(a) (i) (b) (ii)
(c) (iii) (d) All the required

Directions for questions 46 to 47 : Read the following information carefully and answer these questions:

- I. There are six rooms on a floor of a hostel in two rows in North and South directions which are allotted to Praveen, Qureshi, Ravi, Sandeep, Tanush and Upendra.
II. Qureshi is in a room in North direction and is not next to room of Sandeep.
III. Sandeep and Upendra are in diagonally opposite rooms.
IV. Tanush gets a room in North direction and Ravi, next to Upendra, gets a room in south direction.

46. The rooms of which of the other pairs than Sandeep and Upendra, are diagonally opposite to each other?
- (a) Qureshi and Praveen (b) Praveen and Ravi
(c) Qureshi and Ravi (d) Tanush and Ravi
47. Which of the following combinations gets South facing rooms?
- (a) Tanush, Ravi and Upendra
(b) Upendra, Ravi and Praveen
(c) Sandeep, Ravi and Tanush
(d) Data inadequate

Directions for questions 48 to 50 : Read the following information carefully and answer the questions given below :

- Six friends Amar, Ballu, Champak, Dheeraj, Ehsan and Fukku are sitting in two lines, three in each line
 - Ehsan is not at the end of any line.
 - Fukku is second to the right of Dheeraj.
 - Champak, the neighbour of Ehsan, is sitting diagonally opposite to Dheeraj.
 - Fukku is the neighbour of Ballu.
48. Which of the following are sitting diagonally opposite to each other?
- (a) Fukku and Ballu (b) Amar and Dheeraj
(c) Champak and Fukku (d) Amar and Fukku
49. Which of the following belongs to the same line?
- (a) Amar and Ehsan (b) Amar and ballu
(c) Amar and Fukku (d) Fukku and Champak
50. Which of the following are in one of the two lines?
- (a) Fukku, Damodar and Champak
(b) Champak, Amar and Ballu
(c) Damodar, Ballu and Fukku
(d) Amar, Ballu and Fukku

ANSWER KEYS

- | | | | | |
|--------------|--------------|--------------|--------------|--------------|
| 1. c | 2. c | 3. a | 4. b | 5. d |
| 6. b | 7. d | 8. c | 9. d | 10. d |
| 11. c | 12. b | 13. a | 14. b | 15. d |
| 16. c | 17. a | 18. c | 19. c | 20. c |
| 21. b | 22. b | 23. b | 24. b | 25. c |
| 26. b | 27. b | 28. b | 29. b | 30. a |
| 31. b | 32. c | 33. b | 34. b | 35. d |
| 36. c | 37. d | 38. c | 39. d | 40. b |
| 41. c | 42. c | 43. b | 44. b | 45. c |
| 46. c | 47. b | 48. c | 49. d | 50. b |