Seating and Complex Arrangements

Arrangement problems are quite common in all entrance examinations. If you follow the instructions given below, you can easily solve any problem given. First we learn different types of arrangements and tips to crack.

There are three types of arrangements:

1. Linear Arrangements : There are people sit in a row

2. Circular Arrangements : People sit in a row facing center. In most of the cases, problems with 6, 8 people given.

3. Complex Arrangements : In these questions, There are some persons or things which eat different foods, wear different colored shirts, use different bikes, have some first and last names etc. We have to match these persons and their interests according to the conditions given.

Tips in solving linear and circular arrangement problems:

1. Always start filling in the details with Specific Statements.

There are two types of statements given: 1. Specific 2. Non specific

Specific statements always give only one type of arrangement. For example: D sits immediate left of F. So we have to put the combination DF in the diagram.

C sits opposite to A. This also a specific arrangement in a circular diagram as there is no other way to represent this.

Example for non-specific statements is B and E sits next to each other. This gives two types of arrangement. BE and EB.

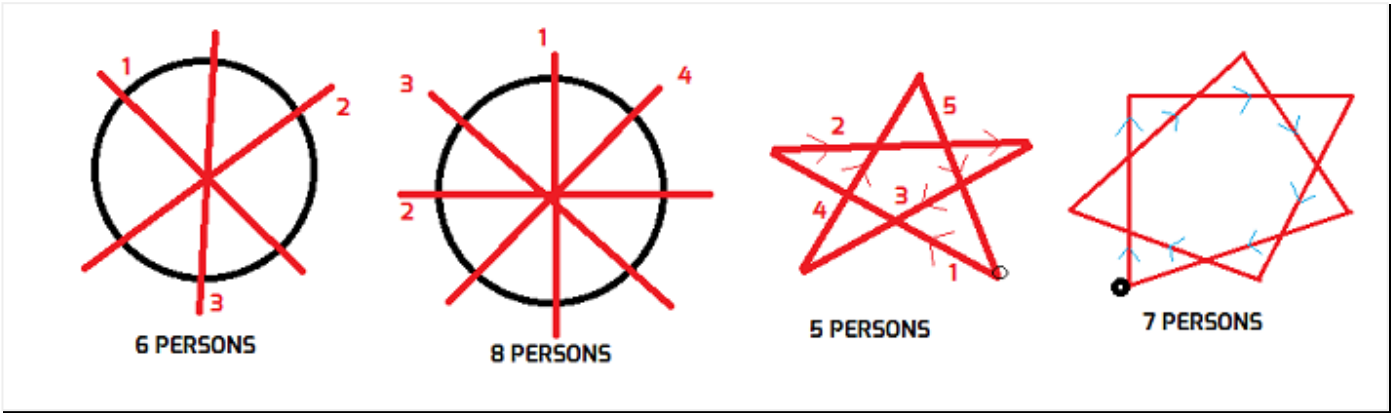
A sits in between C and D. This gives CAD and DAC.

So never solving question with statements like this.

2. Search for some continuation statement:

If the first statement starts with D and F, search for another statement which has either D or F in that. So that it will give you some continuation.

3. Draw the diagrams in the circular arrangement according to the shown below



Remember: Left side in a circular arrangement is always clock wise and right side means anti - clock wise.

Set 1:

Six persons A, B, C, D, E and F are sitting around a circular table facing the center.

I. C is sitting in-between A and F.

II. B is sitting two places to the left of E.

III. D is sitting two places to the right of F.

1. Between which two persons does D is sitting?

a. F-B

b. E-b

c. C-B

d. A-B

2. Who is sitting diagonally opposite to A ?

a. F

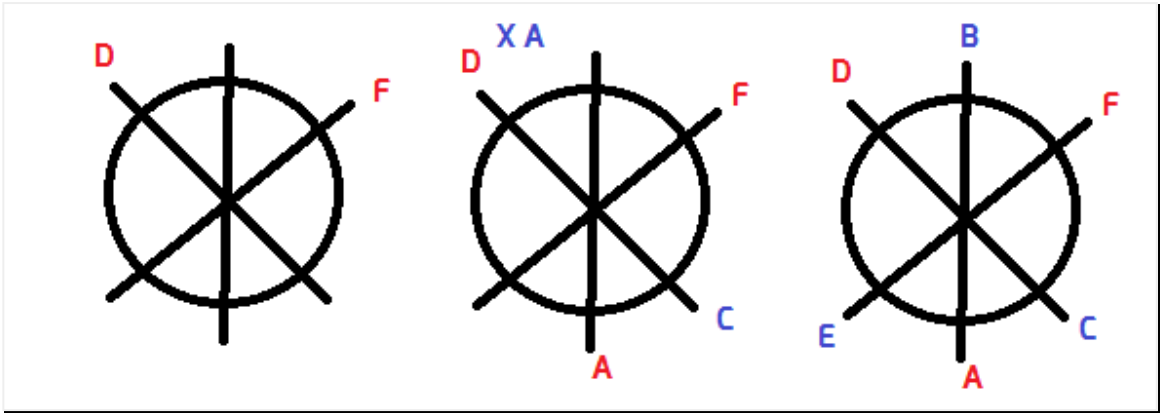
b. C

c. E

d. None of these

From statement 3, F _ DFrom statement 2, B _ ESol: From statement 1, ACF / FCA

We can start with either statement 2 or 3, but starting with statement 3 gives us continuation with statement 1.



D sits to the right of F so When we fix F, we have to write D two places after *Anti clock* wise direction. Now ACF or FCA possible. ACF is not possible as D occupied so FCA possible. B sits to the left of E. So Fix E and after D fix B.

So Option B and Option B are correct.

Set 2:

Eleven students A, B, C, D, E, F, G, H, I, J and K are sitting in a row of the class facing the teacher. D, who is to the immediate left of F, is second to the right of C. A is second to the right of E, who is at one of the ends. J is the immediate neighbor of A and B and third to the left of G. H is to the immediate left of D and third to the right of I.

3. Who is sitting in the middle of the row?

a. C

b. I

c. B

d. G

e. None

4. Which of the following groups of friends is sitting to the right of G?

a. IBJA

b. ICHDF

c. CHDF

d. CHDE

Sol: _ _ _ _ _ _ _ _ _ _ _ _

Let us code all the given statements into some notation format so that it saves lot of time in going back and forth to the question.

1. D, who is to the immediate left of F, is second to the right of C.

This implies, D is sitting immediate left of F and D is setting second to the right of C.

DF, C _ D

2. A is second to the right of E, who is at one of the ends.

If E sits at one of the end he must sits at left end. Then only the following arrangement possible.

E _ A

3. J is the immediate neighbor of A and B and third to the left of G.

AJB / BJA possible and **J _ _ G**

Therefore, **A J B _ G** / **B J A _ G**

4. H is to the immediate left of D and third to the right of I.

HD and **I _ _ H**

From 1, **C _ D F**

From 4, **I _ _ H D**

From 1 and 4, **I _ C H D F ----(1)**

From 3, **A J B _ G** or **B J A _ G** possible

If we consider 2 also, above statement becomes, **E _ A J B _ G** - - - - - (2)

Now from 1 and 2, we have three possibilities. 1. F sits to the left of E 2. I sits to the right of F.

These two are not possible as total places are becoming more than 11. Now I should occupy the position between B and G.

So **E _ A J B I G C H D F** is the right arrangement.

The remaining person K occupy the position between E and A.

Now answers for the above questions are Option B and C.

Solving Complex Arrangement Questions:

1. Amit, Bharati, Cheryl, Deepak and Eric are five friends sitting in a restaurant. They are wearing caps of five different colours — yellow, blue, green, white and red. Also they are eating five different snacks — burgers, sandwiches, ice cream, pastries and pizza.

I. The person wearing a red cap is eating pastries.

II. Amit does not eat ice cream and Cheryl is eating sandwiches.

III. Bharati is wearing a yellow cap and Amit wearing a blue cap.

IV. Eric is eating pizza and is not wearing a green cap.

8. What is Amit eating?

a. Burgers

b. Sandwiches

c. Ice cream

d. Pastries

9. Who among the following friends is wearing the green cap?

a. Amit

b. Bharati

c. Cheryl

d. Deepak

10. Who among the following friends is having ice cream?

a. Amit

b. Bharati

c. Cheryl

d. Deepak

Sol: In this question, there are 3 variables. Name of the person, Color of the caps, and Snacks they take.

Never try to write all the names and try to match them. This is a bad habit. Try this method.

1. Identify one variable and write all the names belong to it below it. Only write the variable names on both sides of this column

Food	Name	Color
	A	
	B	
	C	
	D	
	E	

Now try to fill in the details in the table according the conditions given.

x Ice Cream

Food	Name	Color
	A	Blue
	B	yellow
Sandwiches	C	
	D	
Pizza	E	

X Green

pasties → Red

After Filling in all the available details, table looks like above. Now we have to fit Pastries and Red some where.

Only one place left. It must be at D. Once you fit that one, C's color becomes Green and E's become white.

Similarly B takes Ice cream and A takes Burger. So final table looks like this

x Ice Cream

Food	Name	Color
Burger	A	Blue
Ice Cream	B	yellow
Sandwiches	C	Green
pasties	D	Red
Pizza	E	White

X Green

pasties → Red

So answers for the above questions are A, C and B respectively.

Complex arrangement problems are not this much straight forward. But the procedure to solve any question is like this.

If there are more variables, the complexity increases. But with adequate practice you can solve the questions easily.