

Seating Arrangements

→ Line

→ Circular.

Lesson no.
30
Workbooks

- ① There are five different houses A to E in a row. A is to the right of B. E is to the left of C and right of A. B is to the right of D. Which of the houses is in the middle?

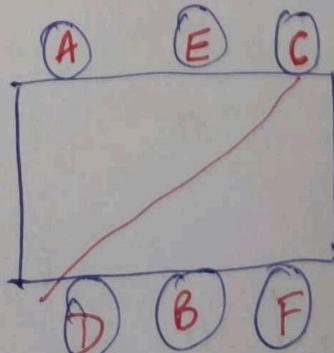
D B A E C

A is in the middle.

- (Q.7-8) 6 persons A, B, C, D, E, F are sitting in two rows, three in each row facing each other. E is not at the end of any row. D is the second to the left of F. C, who is the neighbour of E is sitting diagonally opposite to D. B is the neighbour of F.

- ⑧ Who is facing B.

- (a) A
- (b) C
- (c) D
- (d) E



- ⑦ Which of the following is in one of two rows?

- (a) FBC
- (b) CEB
- (c) DBF
- (d) AEF

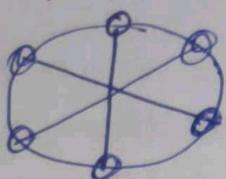
Circular Arrangements

①

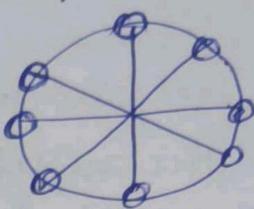
- ① Divide circle into equal parts.

Ex:

6 people



8 people



- ② B is sitting between A and C

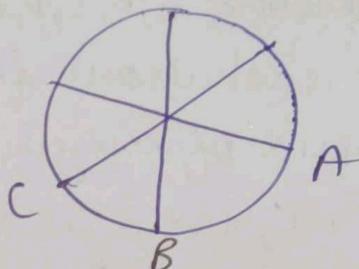
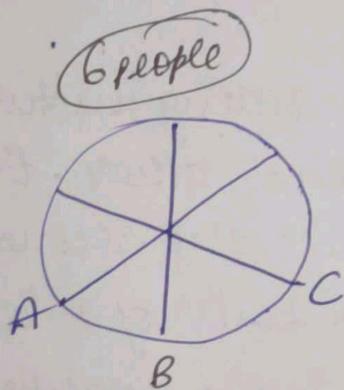


between (A) and (C)

Always evaluate both cases.

A (B) C

C (B) A

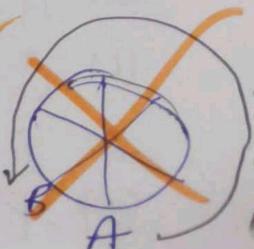
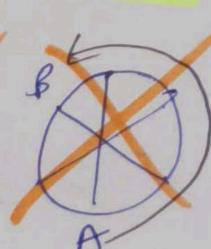
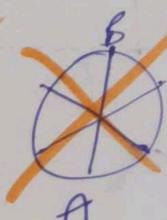
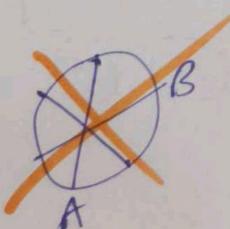
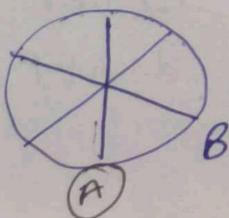


- ③ B is sitting to the right of A

→ right → immediate right (IR)

left → immediate left (IL)

6 people

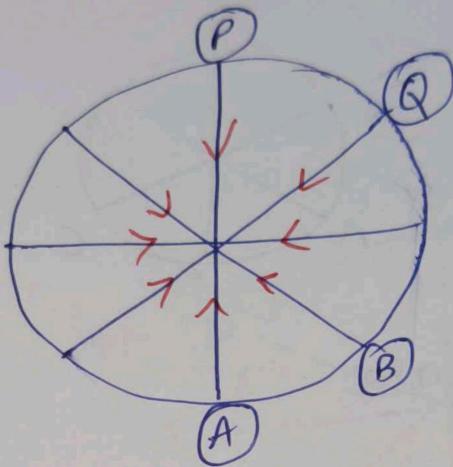


- ④ Always assume that all occupants are facing centre.

e.g. 8 people

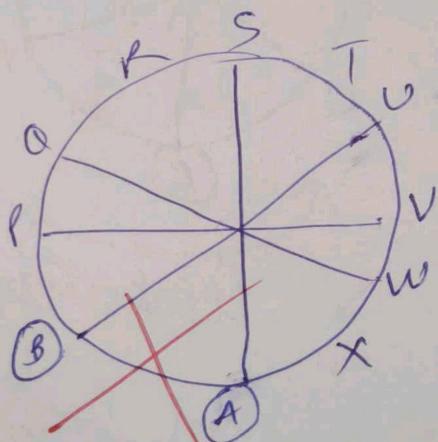
(B) is sitting right of A

(P) " " " " Q



- ⑤ A and B are not sitting together.

→ Cannot sit adjacent.



⑥

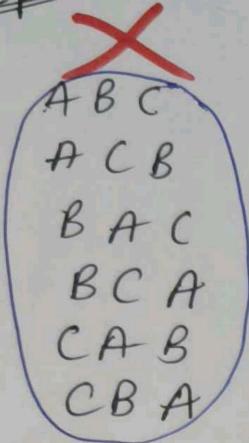
A, B, C

are sitting together

Evaluate 2 cases only

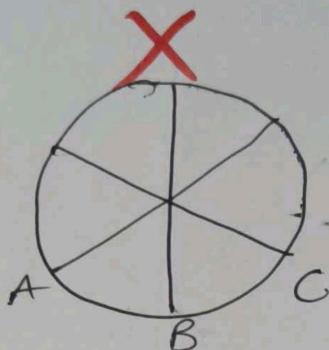
Ex,

6 people

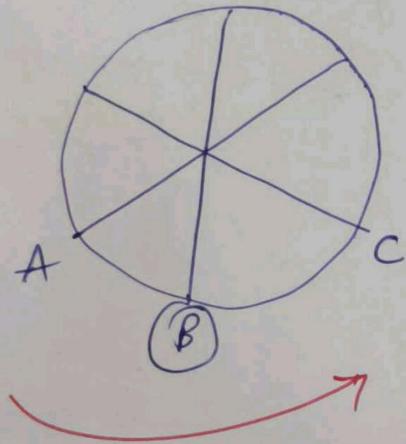


clockwise

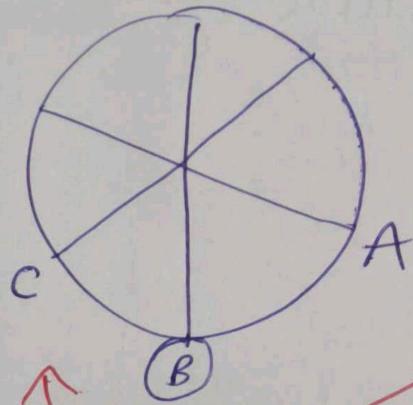
anticlockwise



only 2 cases are



anticlockwise



clockwise

Hexagon

ARRANGEMENTS

Page No.:

BEST
SPIRAL

Q8

Six people $\rightarrow A, B, C, D, E$ and F are sitting on the ground in a hexagonal shape. All the sides of the hexagon so formed are of same length.

A is not adjacent to B or C

D is not adjacent to C or E .

B and C are adjacent

F is in the middle of D and C .

B/C A B/C (X)

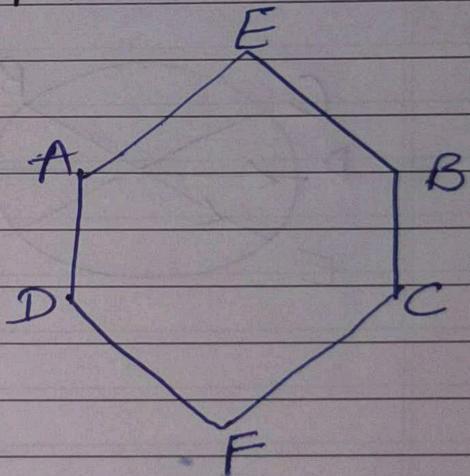
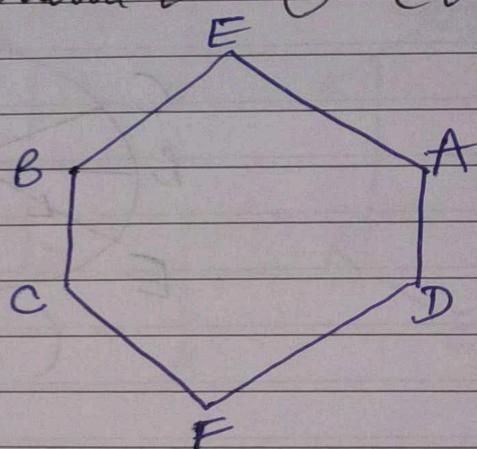
C/E D C/E (X)

B/C E/B

D/C E/C/D

Which of the following is not the correct neighbour pair.

- (A) A and F (B) D and F
 (C) B and F (D) C and F .



circular

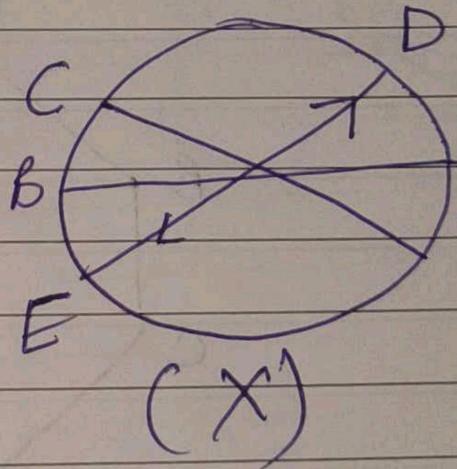
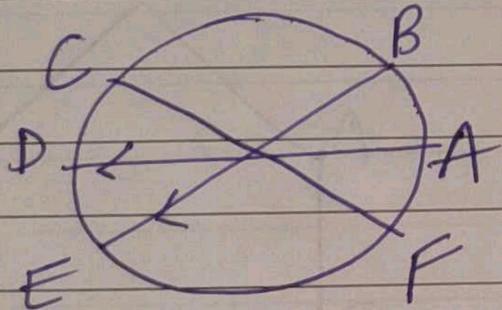
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Q. ②

Among six persons A, B, C, D, E and F standing around a circle, some of them are facing the centre while others are facing outside (i.e., opposite to the centre).

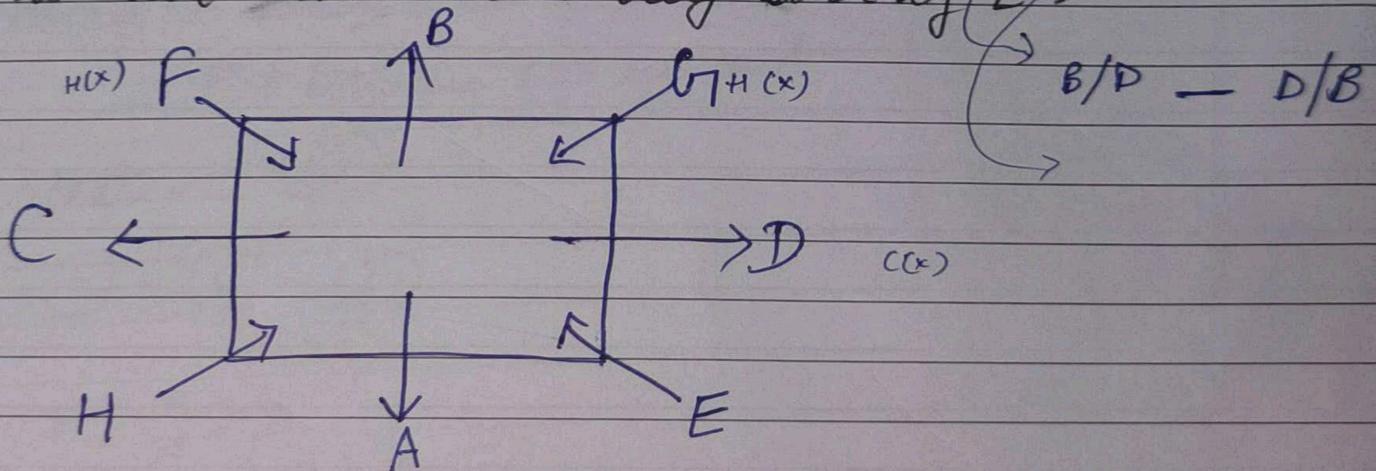
C stands second to the right of E. E faces outside. C is an immediate neighbour of both D and B. F stands second to the left of D. D faces the same direction as E.

What is the position of A with respect of E?



8 boys A, B, C, D, E, F, G, H are seating around a square table, they seating in such a way that four sit in middle of each four sides and facing outside and another four boys sits at the four corners facing center.

- E who faces the center sits 3rd to the right of B.
- H faces center who is not immediate neighbour of B.
- One boy sits b/w B and D.
- C faces center, F sits second to the right of C.
- C is not immediate neighbour of E.



Type 1: Comparison (Height, Weight)

P, Q, R, S

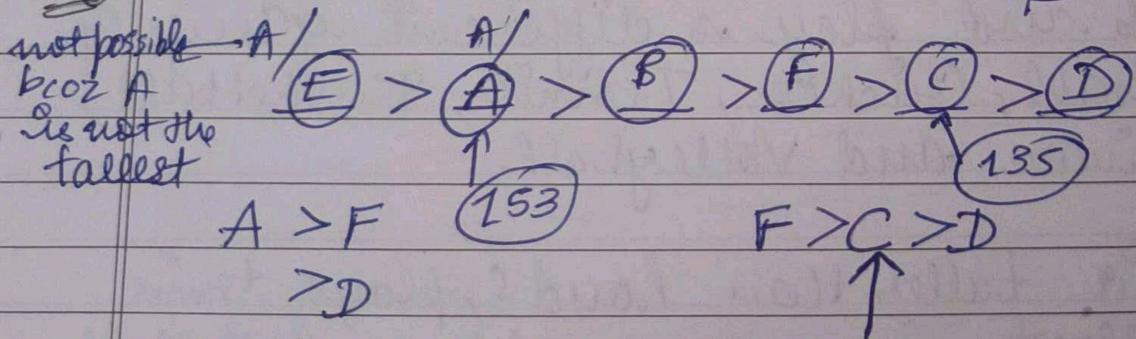
$\frac{\text{To highest}}{> > >} \uparrow \text{Lowest}$ {Arrange in descending order}

Q1 There are 6 people A, B, C, D, E and F. All of them have different heights.

A is taller than F & D. B is shorter than only two people including A. A is not the tallest. C is taller than D but shorter than F.

The height of 2nd tallest person and the 2nd shortest person is 153 cm and 135 cm respectively.

Q1 possible height of F? \rightarrow lies between 153 cm and 135 cm
Q2 who is 3rd shortest \rightarrow B



(Q2)

7 friends - A, B, C, D, E, F and G. All have different heights. B is taller than F but shorter than E. (E is not the tallest). A is taller than both F and C. C is taller than G. (A is taller than only 3 friends) (D)

(1)

Who is tallest of all friends.

(2)

C can be placed in how many possible positions in the arrangement obtained (E)

$$(D) > (E) > (B) > (A) > \xrightarrow{F} \xrightarrow{C} \xrightarrow{G} \xrightarrow{A} \xrightarrow{F} \xrightarrow{G}$$

$$E > B > F$$

$$\begin{matrix} A & > & F \\ & > & C & > & G \end{matrix}$$

$$C > G$$

(Q3)

(i) Six friends P, Q, R, S, T and U members of club and play a different game of Football, Cricket, Tennis, Basketball, Badminton and Volleyball.

T, who is taller than R and S, plays tennis. The tallest among them plays Basketball. — shortest — Volleyball

Q and S neither play Volleyball nor Basketball. R plays Volleyball.

T is exactly b/w Q who plays Football and P in order of height.

Q10 Who will be at 3rd place if they are arranged in descending order of their height.
(i) R ~~(ii) T~~ (iii) Q (iv) Not

- (ii) R ~~T~~ T (iii) Q (iv) Not
Who among them plays Basketball.
(i) Q (ii) T (iii) P ~~(iv) U~~

Basketball > Golf > Ice HPolo > Soccer > Rugby > Volleyball

$$\rho(x)$$

P
Q
R
S
T
U

Football
Volleyball

Tennis
Basketball

$$\begin{matrix} T > P \\ > S \end{matrix}$$

$$Q \geq P > P_0 (\checkmark)$$
$$P + Q (x)$$