

# LOGICAL REASONING

Ch-9

Number Series, Coding and Decoding and Odd Man Out

Series  $\longrightarrow$  Pattern

~~22~~

Forward + Backward = 27  
Position Position

- \* Number Series
- Alphabet Series
- Letter Series

## Number Series

1. Perfect Square Series

ex:  $1^2, 2^2, 3^2, 4^2, \dots$

2. Perfect Cube Series

ex:  $1^3, 2^3, 3^3, 4^3, \dots$

3. Difference Series

ex: 3, 5, 7, 9, 11, ...

4. Ratio Series

ex: 2, 4, 8, 16, 32, ...

## 5. Prime Number Series

Ex: 2, 3, 5, 7, 11, 13, 17, 19, 23, 29

## 6. Mixed Series

Ex: 2, 3, 4, 9, 8, 27, ...

## 7. Two Tier Series

Ex: 2, 5, 11, 23, 47, ...

$\underbrace{\quad\quad}_3$     $\underbrace{\quad\quad}_6$     $\underbrace{\quad\quad}_{12}$     $\underbrace{\quad\quad}_{24}$

Alphabet Series

4 8 12      16 20      24  
DHL      PT      X

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17  
A B C D E F G H I J K L M N O P Q

18 19 20 21 22 23 24 25 26  
R S T U V W X Y Z

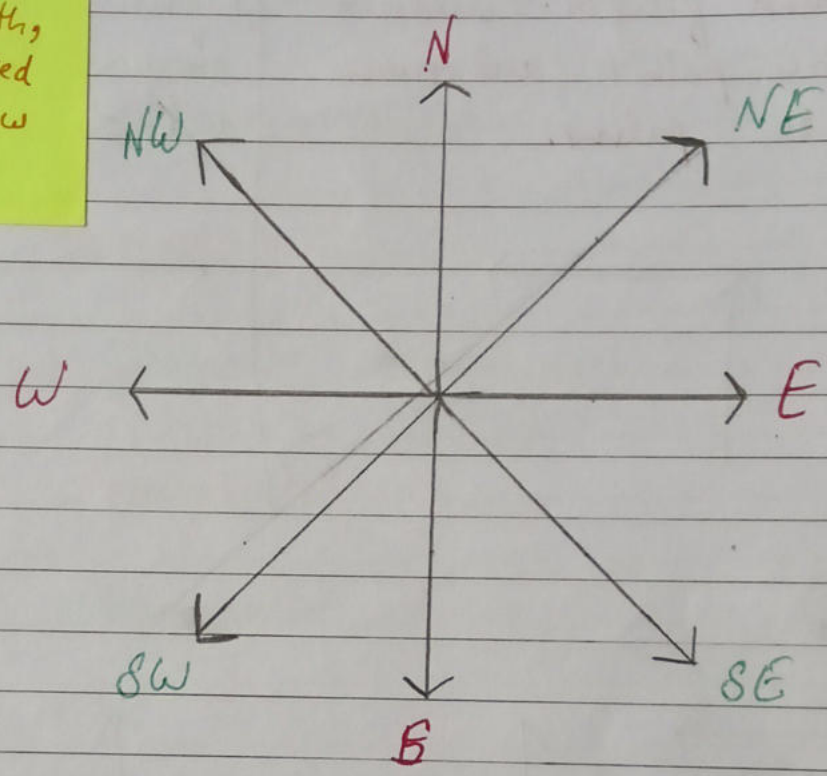
Letter Series

Sunrise → East  
Shadow point west  
(Man facing north,  
West is situated to  
left. Shadow in left)

Sunset → West  
Shadow points east  
(Man facing North,  
East is situated  
to right. Shadow  
in right)

Unit -10

Direction Sense Test



□ Some Points

Direction mentioned (given)	Direction indicated
Left + Left	Down
Left + Right	Up
Right + Left	Up
Right + Right	Down
Up + Left	Left
Up + Right	Right
Down + Left	Right
Down + Right	Left

↗ Clockwise

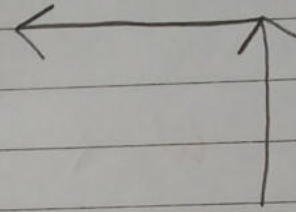
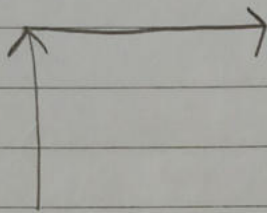
Right hand turn

↖ Anticlockwise

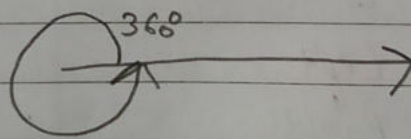
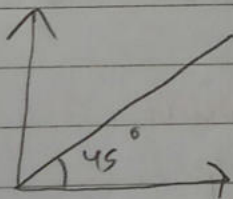
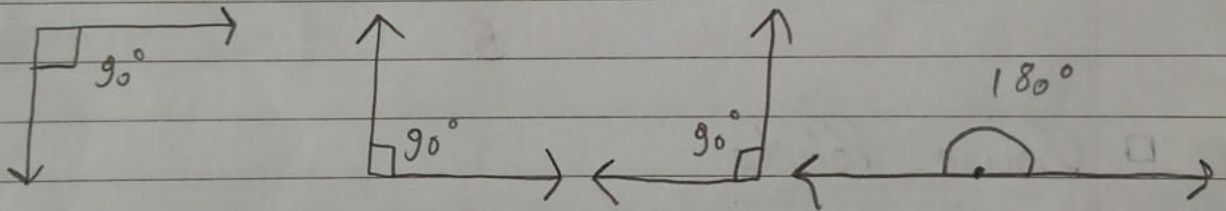
Left Hand Turn

→ Left hand finger → current direction point and turn towards palm.

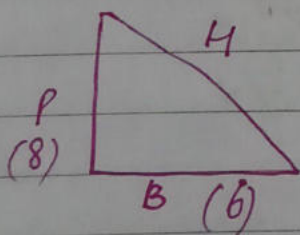
Right hand finger → current direction point and towards palm.



□ Turns



Pythagoras Theorem



$$= H^2 = P^2 + B^2$$

$$H = \sqrt{8^2 + 6^2}$$

$$= \sqrt{64 + 36}$$

$$= \sqrt{100}$$

$$= 10 \text{ m}$$

## CH-11 Seating Arrangements

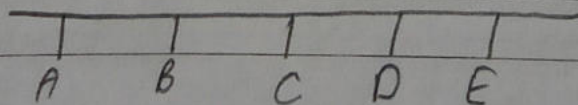
→ Types of Arrangements:

1. Linear Arrangement
2. Two Row Sequence Arrangement
3. Circular Arrangement
4. Polygon Arrangement

→ There will be two types of question of linear arrangement:

- a) When you don't know the direction of facing.  
Left — — — — — RIGHT
- b) When you know the direction of facing.  
(for example - Upward, downward, east, north, south, west)

When direction of facing is not clear, then we take our self as below:-



Now, there are few conclusions which we have to make from above.

1. Immediate left or immediate right
2. To the left or to the right
3. In Between
4. Extremes

### □ Some Short Tricks of Words

1. Next to → साथ में
2. Not sitting → साथ नहीं है
3. last end → किसी की आखरी तरफ
4. If in line two person represented with and but then it relates to the first one.  
Ex: A is on the right of B and E.  
Who → Second Person

Note: there are 3 types of information provided

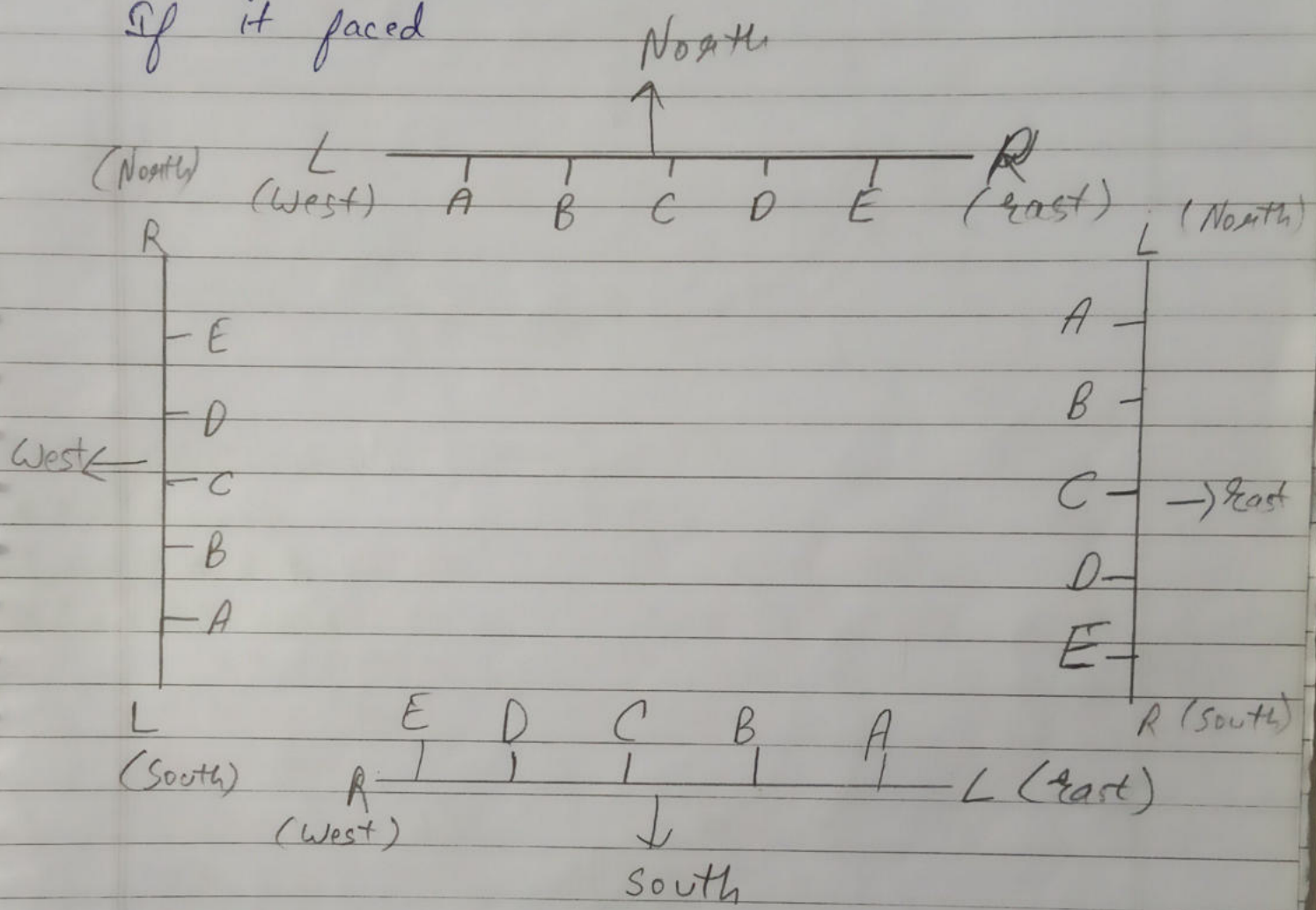
Direct ,

Comparative

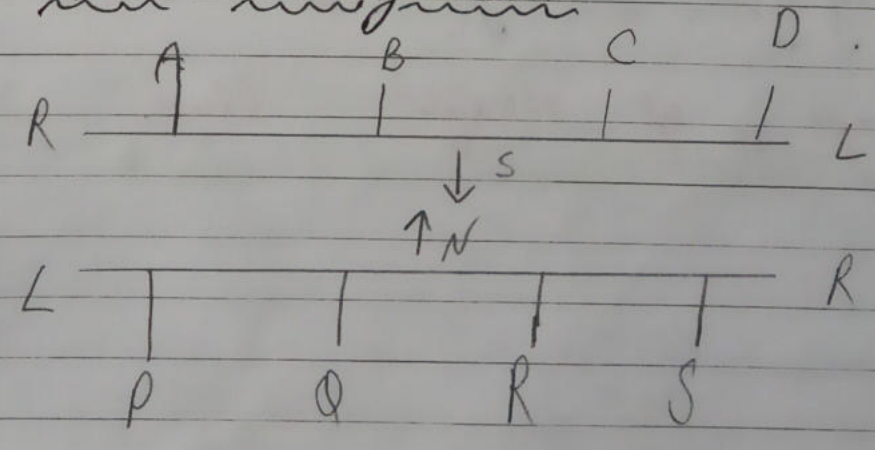
Negative

(b) When you know the direction of facing.  
 (for example - upward, downward, east, north, south, west etc...)

If it faced

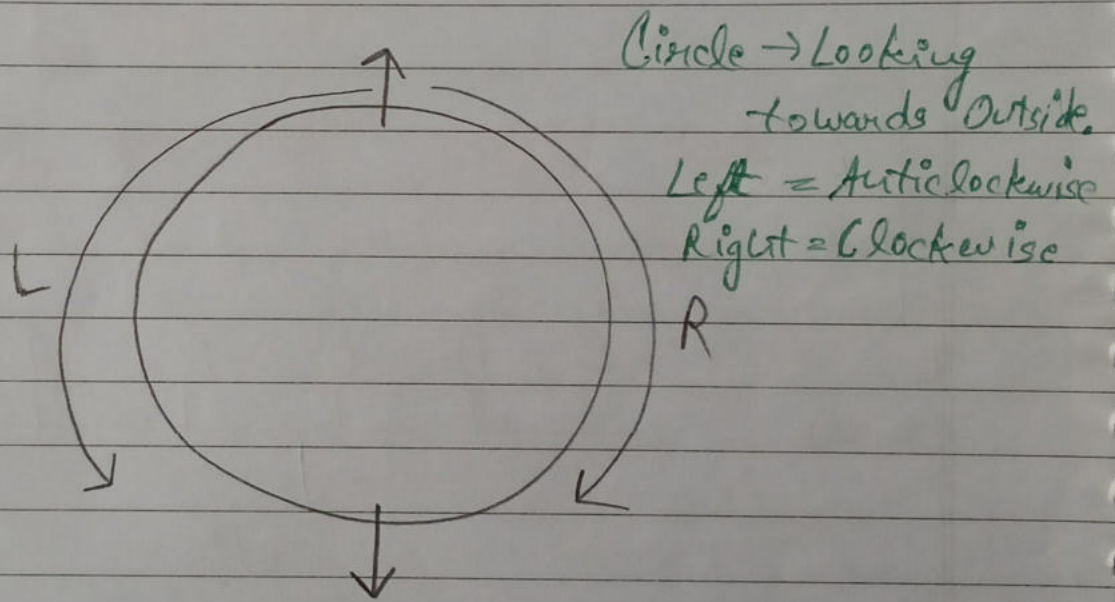
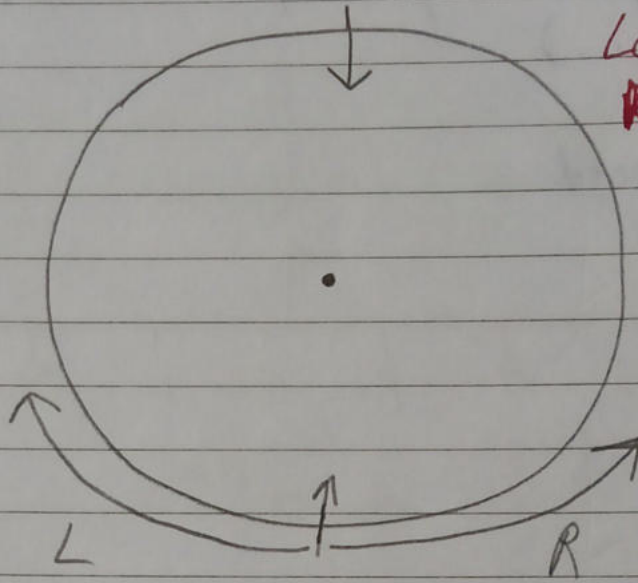


□ Double Row Arrangement



□ Circular Arrangement

Circle → Looking towards centre,  
Left = Clockwise  
Right = Anticlockwise



□ Polygon Arrangement

- Shape of straight lines.
- Rule are same as circle

Ch. - 12Blood Relations

□ Notations to show the relation.

Male	+
Female	-
One generation gap	
Same Generation	—
Husband / Wife	=

(i) Relations of Paternal Side:

Father's father	→	Grandfather
Father's Mother	→	Grandmother
Father's Brother	→	Uncle
Father's Sister	→	Aunt

~~Father's~~

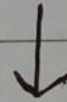
Children of uncle	→	Cousin
Wife of uncle	→	Aunt
Children of aunt	→	Cousin
Husband of aunt	→	Uncle

(ii) Relations of Maternal Side:

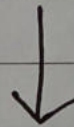
Mother's father	→	Grandfather
Mother's Mother	→	Grandmother
Mother's Brother	→	Uncle
Mother's Sister	→	Aunt
Children of maternal uncle	→	Cousin
Wife of maternal uncle	→	Aunt

□ Different Generations Chart

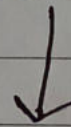
Generation 1 Grandmother, Grandfather,  
Maternal " , Maternal "



Generation 2 Mother, Father, Uncle, Aunt  
(Both Sides)



Generation 3 Self, Sister, Sister-in-Law,  
Brother, Brother-in-Law



Generation 4 Son, Daughter, Nephew, Niece  
↓ Boys Girls  
वामश  
मारीज

□ Family Tree

