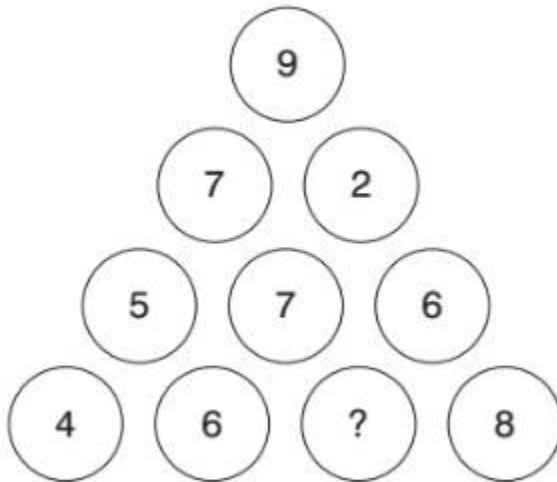


NUMBER PUZZLES

DEFINITION:

Number puzzles have specific set of rules, you first has to figure out the pattern being followed and then answer the puzzle according to the pattern.

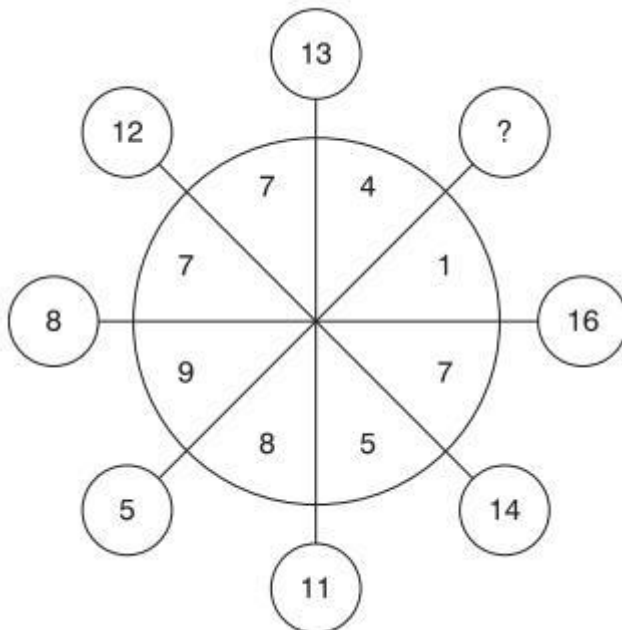
Example 1: What number should replace the question mark?



Answer: 0

Explanation: Looking at lines of numbers from the top, $9 \times 8 = 72$; $72 \times 8 = 576$; $576 \times 8 = 4608$

Example 2: What number should replace the question mark?



Answer: 17

Explanation: It is the sum of the two digits (9+8) in the quadrant opposite.

Example 3: What number should replace the question mark?

			14	
	22			
			34	
41				
		53		?

Answer: 55

Explanation: Each number indicates its position in the grid. 55 indicates row 5 and column 5.

Example 4: What number should replace the question mark?

5		4		?
8	5	7	6	9
1	7	1	9	3

Answer: 7

Explanation: $91 / 13 = 7$

Explanation 5: What number should replace the question mark?

47	55	63
85	92	99
73	?	25

Answer: 49

Explanation: $(73+25)/2 = 49$.

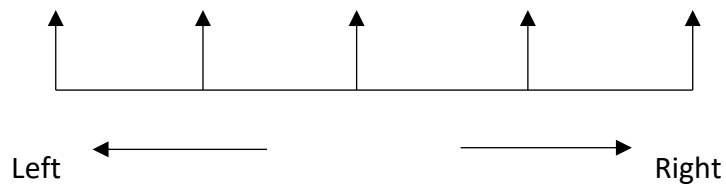
SEATING ARRANGEMENT – LINEAR

DEFINITION:

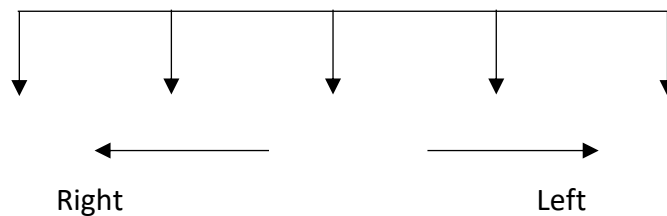
Any logical arrangement of objects or people either horizontally or vertically or diagonally is known as linear arrangement.

Ex: The row of the travellers in a train, students in a prayer hall, etc.,

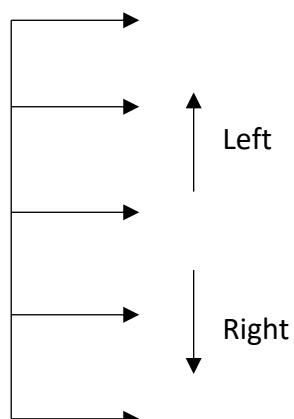
In the below arrangement, some persons are sitting in a row facing North direction. The diagram highlights the left and right of the people for this case.



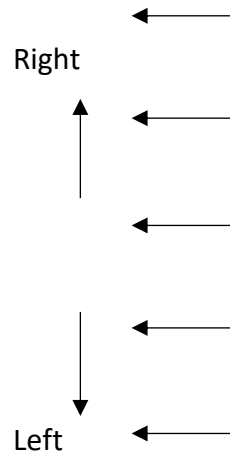
In the below arrangement, some persons are sitting in a row facing South direction. The diagram highlights the left and right of the people for this case.



In the below arrangement, some persons are sitting in a row facing East direction. The diagram highlights the left and right of the people for this case.



In the below arrangement, some persons are sitting in a row facing West direction. The diagram highlights the left and right of the people for this case.



EXAMPLE 1: Study the information and answer the following questions. A, B, C, D, E, F and G are sitting in a row facing North:

1. F is to the immediate right of E
2. E is 4th to the right of G.
3. C is the neighbour of B and D.
4. Person who is 3rd to the left of D is at one of the ends.

1. What is the position of A?

(a) Between E and D	(c) Centre
(b) Extreme Left	(d) Extreme right
2. Who are the neighbours of B?

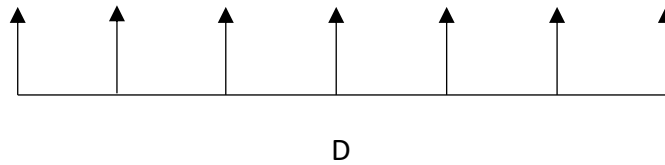
(a) C and D	(b) C and G	(c) G and F	(d) C and E
-------------	-------------	-------------	-------------
3. Which of the following statement is not true?

(a) E is to the immediate left of D	(c) A is at one of the ends
(b) G is to the immediate left of B	(d) F is 2 nd to the right of D
4. Who are to the left of C?

(a) Only B	(b) G, B and D	(c) G and B	(d) D, E, F and A
------------	----------------	-------------	-------------------

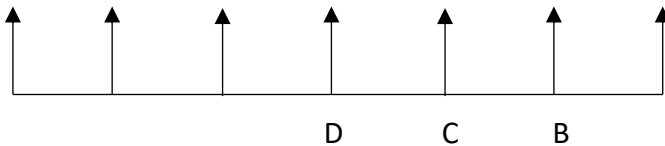
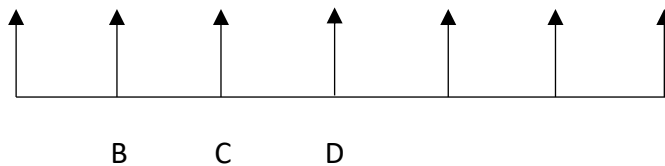
SOLUTION:

STEP 1: From statement 4, Person who is 3rd to the left of D is at one of the ends.

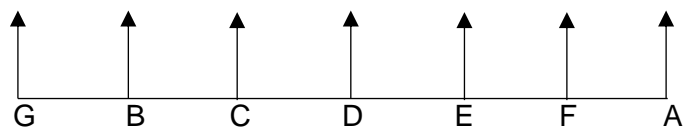


Note: Always start with the statement providing conditions like persons who are sitting at extreme ends or persons who are sitting in the middle.

STEP 2: From the statement 3, C is the neighbour of B and D.



STEP 3: From the 1st and 2nd Statements, F is to the immediate right of E. E is 4th to the right of G.



ANSWERS:

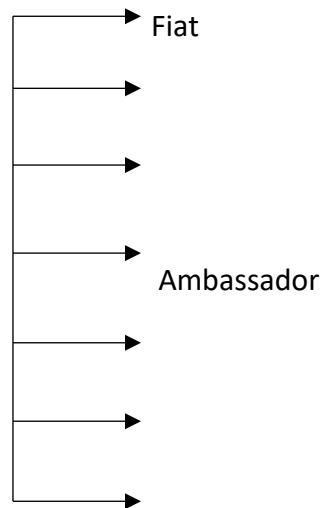
1. OPTION (d): Extreme Right
2. OPTION (b): G and C
3. OPTION (a): E is to the immediate left of D
4. OPTION (c): G and B

EXAMPLE 2: In an exhibition seven cars of different companies – Cadillac, Ambassador, Fiat, Maruti, Mercedes, Bedford and Fargo are standing and facing to east in the following order:

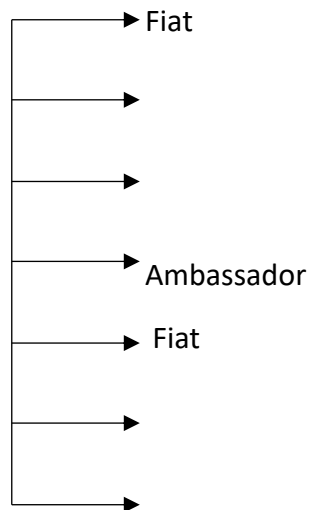
- A. Cadillac is next to the right of Fargo.
 - B. Fargo is 4th to the right of Fiat.
 - C. Maruti car is between Ambassador and Bedford.
 - D. Fiat which is 3rd to the left of Ambassador, is at one end.
-
1. Which one of the following is the correct position of Mercedes?
(a) Next to the Cadillac (c) Between Bedford and Fargo
(b) Next to the left of Bedford (d) 4th to the right of Maruti
 2. Which of the following group of cars is to the right of Ambassador?
(a) Cadillac, Fargo and Maruti (c) Mercedes, Cadillac and Fargo
(b) Maruti, Bedford and Fiat (d) Bedford, Cadillac and Fargo
 3. Which one of the following statements is correct?
(a) Fargo car is between Ambassador and Fiat
(b) Cadillac is immediate left to Mercedes car
(c) Fargo is immediate right of Cadillac
(d) Maruti is 4th to the right of Mercedes
 4. Which of the cars are on both the sides of Cadillac?
(a) Ambassador and Maruti (c) Fargo and Mercedes
(b) Maruti and Fiat (d) Ambassador and Fargo

SOLUTION:

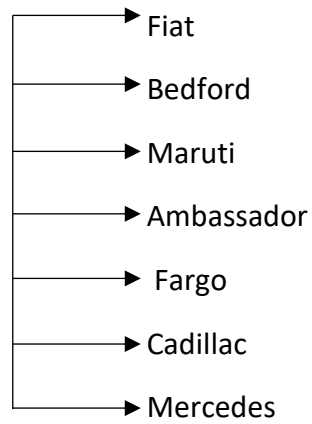
STEP 1: From statement D, Fiat which is 3rd to the left of Ambassador, is at one end.



STEP 2: From statement B, Fargo is 4th to the right of Fiat.



STEP 3: From statement A and C, Cadillac is next to the right of Fargo. Maruti car is between Ambassador and Bedford.



ANSWERS:

1. OPTION (d): 4th to the right of Maruti
2. OPTION (c): Mercedes, Cadillac and Fargo
3. OPTION (b): Cadillac is immediate left to Mercedes Car
4. OPTION (c): Fargo and Mercedes

LOGICAL PUZZLE

DEFINITION:

Logic puzzle, puzzle requiring the use of the process of logical deduction to solve.

Example 1:

SUNDAY
MONDAY
TUESDAY
WEDNESDAY
THURSDAY
FRIDAY
SATURDAY

What day comes three days after the day which comes two days after the day which comes immediately after the day which comes two days after Monday?

- a) Monday b) Tuesday c) Wednesday d) Thursday

ANSWER: Option (b)

Example 2: A man has 53 socks in his drawer: 21 identical blue, 15 identical black and 17 identical red. The lights are fused and he is completely in the dark. How many socks must he take out to make 100 per cent certain he has a pair of black socks?

- a) 40 b) 50 c) 60 d) 70

ANSWER: Option (a)

Explanation: If he takes out 38 socks, although it is very unlikely, it is possible they could all be blue and red. To make 100 percent certain that he also has a pair of black socks he must take out a further two socks.

Example 3: A bag of potatoes weighs 50 lbs divided by half of its weight. How much does the bag of potatoes weigh?

- a) 5 b) 12 c) 15 d) 10

ANSWER: Option (d)

Explanation: $50/5 = 10$