



# Logical Reasoning

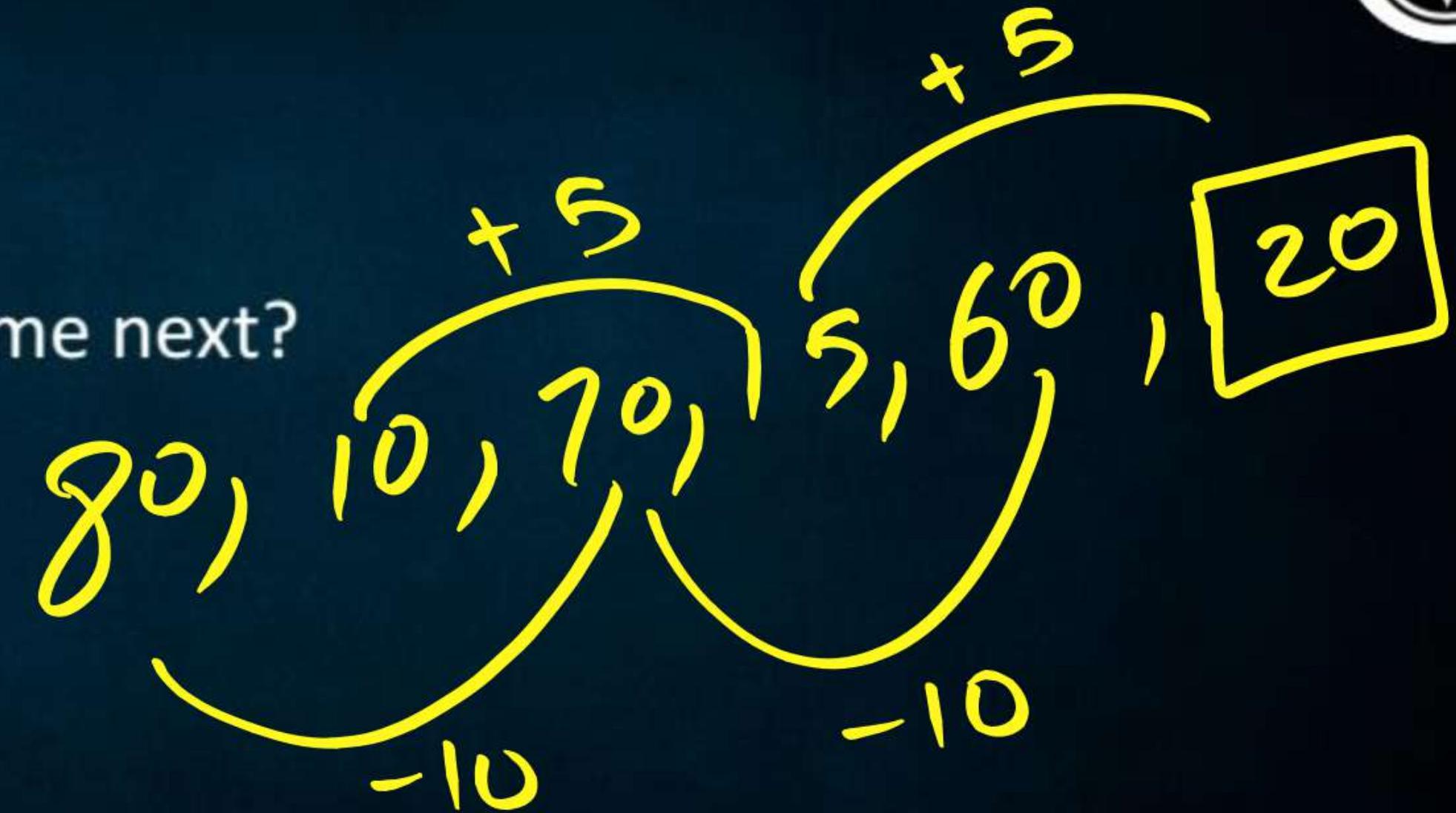
Questions -

In the sequence:

80, 10, 70, 15, 60, \_\_\_

What number should come next?

- (a) 20
- (b) 30
- (c) 40
- (d) 50



Questions -

120, 99, ?, 63, 48, 35

(a) 80

(b) 36

(c) 45

(d) 40

120, 99, 80, 63, 48, 35  
↓      ↓      ↓      ↓      ↓      ↓  
11^2 - 1    10^2 - 1    9^2 - 1    8^2 - 1    7^2 - 1    6^2 - 1

What is the missing term?

RST, WXY, BCD, \_\_\_, KLM

(a) CDE      (b) DEF      (c) GIH

(d) GHI

$$\begin{array}{r} 18 & 19 & 26 \\ -15 & & \\ \hline 3 & 4 & 1 \\ 15 & R & S & T \\ +5 & & & \\ \hline 23 & W & X & Y \\ +5 & & & \\ \hline 28 & B & C & D \\ +5 & & & \\ \hline 33 & H & I & \\ \hline \end{array}$$

$$\begin{array}{r} 11 & 12 & 13 \\ K & L & M \end{array}$$

The missing letters in

c d c d c d c d c d c d

- (a) c d c c d
- (b) c d d c d ~~✓~~
- (c) c c d c d
- (d) d d d c d

In certain code 'BILLION' is written as 'IBLLOIN'.

How is 'HILTON' written in that code?

(a) IHTLON

**(b) IHTLNO**

(c) OHTLIN

(d) HITLNO

HELTON  
IHTLNO

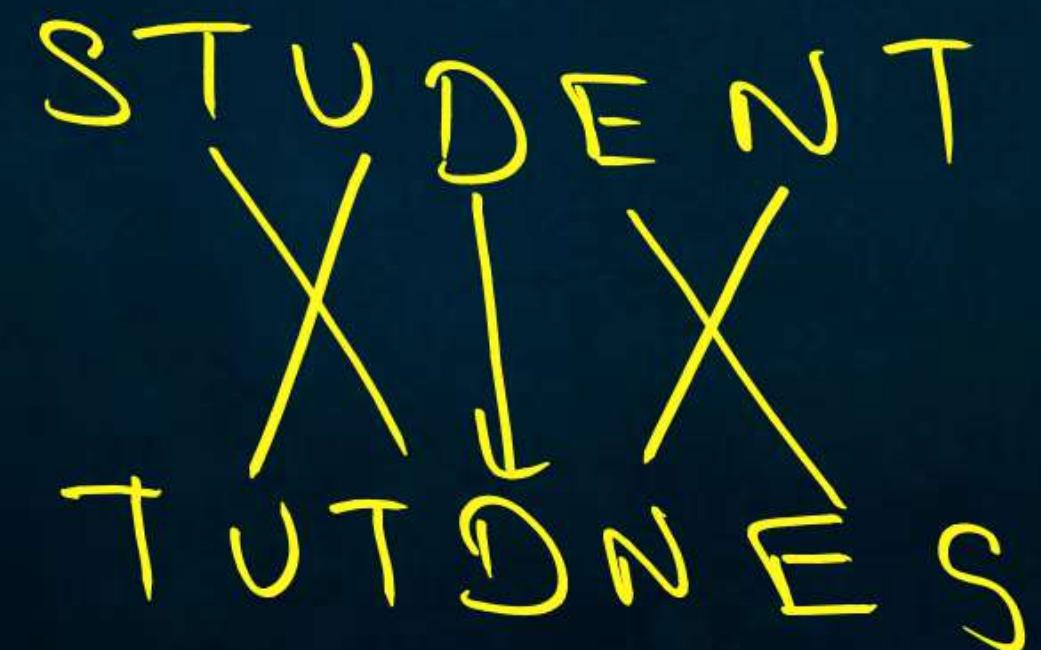
In a certain code **STUDENT** is written as **TUTDNES**.

How will **SOURCES** be written in that code?

- (a) SOURECS
- (b) SOCRSEU
- (c) SUORECS**
- (d) SORCESU

STUDENT

TUTDNES



SOURCES

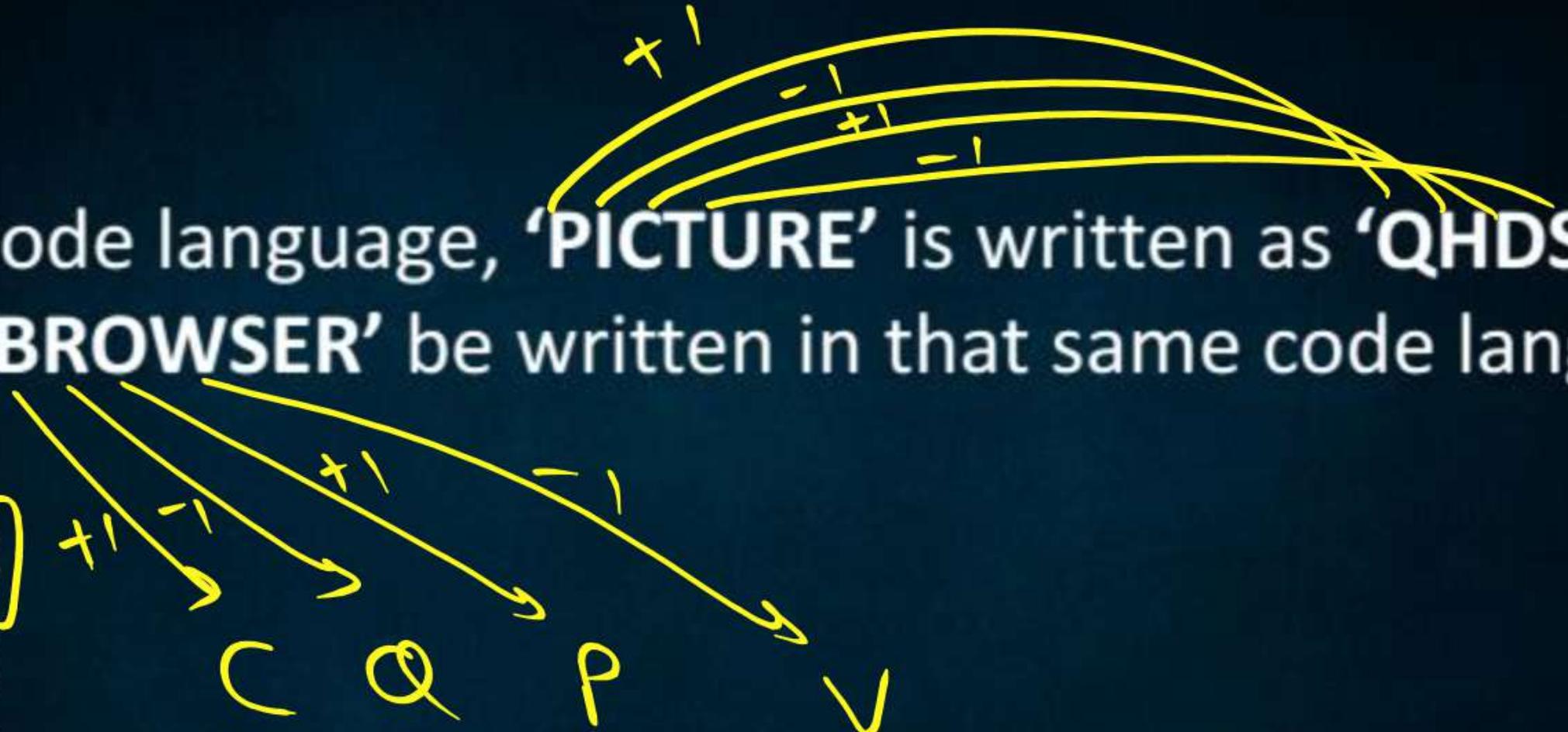
SUORECS



Questions -

In a certain code language, 'PICTURE' is written as 'QHDSVQF'.  
How would 'BROWSER' be written in that same code language?

- (X) CQVVDS
- (B) CQPVTDS
- (c) CQPUTDS
- (X) CQVPPDS



In a certain code **ATE** is written as **145** and **CHAIR** is written as **09173**, then how **TEACHER** can be written in the code?

- (a) 4501953
- (b) 4510953**
- (c) 4510934
- (d) 4530943

ATE = 145

CHAIR = 09173

TEACHER

4510953

## Questions -

If 'RAJU' is coded as **11-12-13-14**  
and 'JUNK' is coded as **13-14-10-9**,  
then how will you code 'RANK'?

- (a) 9-10-11-12
- (b) 10-11-12-9
- (c) 11-12-10-9**
- (d) 12-11-10-9

11 - 12 - 10 > 9

Questions -



Find odd man out of the following: 6, 9, 15, 21, 24, 28, 30

(a) 28 (b) 21 (c) 24 (d) 30

9

28  
Not Divisible  
by 3

Select the odd man out:

- (a) Cricket ≈
- (b) Volleyball ≈
- (c) **Fencing**
- (d) Baseball ≈

Find odd one out of the following:

41, 43, 47, 53, 61, 71, 75, 83  
 $\begin{matrix} +2 & +4 & +6 & +8 & +10 & +12 \end{matrix}$

- (a) 75
- (b) 73
- (c) 71
- (d) 53

Questions -



There are four groups of letters in each. Three of these groups are alike in some way while one is different. Find the one which is different.

**TRP, YWU, SQO, TVX**

- (a) TRP
- (b) YWU
- (c) SQO
- (d) TVX**

20 18 16      25 23 21      19 17 15      26 22 24  
T R P      Y W J      S Q O      T V X

In a certain language, MADRAS is coded NBESBT,  
how DELHI is coded in that code?

- (a) EMMJI
- (b) EFMIJ**
- (c) EMFIJ
- (d) JIFEM

E F M I J

## Questions -

A certain code “564” means “all the best”, “736” means “best of luck” and “423” means “all is luck”. Which of the following is the code for “luck” ?

- (A) 4
- (B) 6
- (C) 3
- (D) 7

5 6 4 = All The Best = 6

7 3 6 = Best of Luck = 6

4 2 3 = All is Luck = P = 3

## Questions -



If the code for "MATHS" is "NBUIT", then what is the word whose code is "MILK" ?

- (A) LHKJ
- (B) NJML
- (C) MIKL
- (D) NJML

$\overset{13}{M} \overset{1}{A} \overset{20}{T} \overset{8}{H} \overset{19}{S} \xrightarrow{+} \overset{17}{N} \overset{2}{B} \overset{21}{U} \overset{9}{I} \overset{20}{T}$

?

$\xrightarrow{-T} \overset{13}{M} \overset{9}{I} \overset{12}{L} \overset{11}{K}$

12 8 11 10  
L H k J

## Questions -

$$\frac{1}{2}, \frac{3}{4}, \frac{5}{8}, \frac{7}{16}, ?$$

(a)  $\frac{9}{32}$

(b)  $\frac{10}{17}$

(c)  $\frac{11}{34}$

(d)  $\frac{12}{35}$

$\frac{1}{2}, \frac{3}{4}, \frac{5}{8}, \frac{7}{16}, ?$

$\downarrow$

$\frac{9}{32}$

Diagram showing the sequence  $\frac{1}{2}, \frac{3}{4}, \frac{5}{8}, \frac{7}{16}, ?$  with a circled question mark. Each fraction is multiplied by 2 to get the next:  $\frac{1}{2} \times 2 = \frac{2}{4}$ ,  $\frac{2}{4} \times 2 = \frac{4}{8}$ ,  $\frac{4}{8} \times 2 = \frac{8}{16}$ . The next step is  $\frac{8}{16} \times 2 = \frac{16}{32}$ , which is circled in orange.

## Questions -

Find the missing term;

P 3 C; R 5 F; T 8 I; V 12 L; \_\_\_\_ ?

(a) Y170

(b) X17M

(c) X170

(d) X160

16 P 3 C, 18 R 5 F, 20 T 8 I, 22 V 12 L, 24 X 15 O

3, 5, 8, 12, 17  
 +2 +3 +4 +5

## Questions -

Find the next number in the series: Q1F, S2E, U6D, W21C, .....?

(a) Y66B

(b) Y44B

~~(c) Y88B~~

(d) Z66B

Q 1 F

S 2 E

U 6 D

W 21 C  
+2 |  
4  
↓ -1  
B

1 2 1 6 1 2 1  
x1+1 x2+2 x3+3 x4+4

$$84 + 4 = 88$$

## Questions -



AZ, GT, MN, ..., YB, EV. The value at blank space (...) will be

A) SH  
 $19 + 8$

B) JH  
 $10 + 8$

A  $^{26}$ , B  $^{20}$ , C  $^{14}$ , D  $^{12}$ , E  $^{22}$



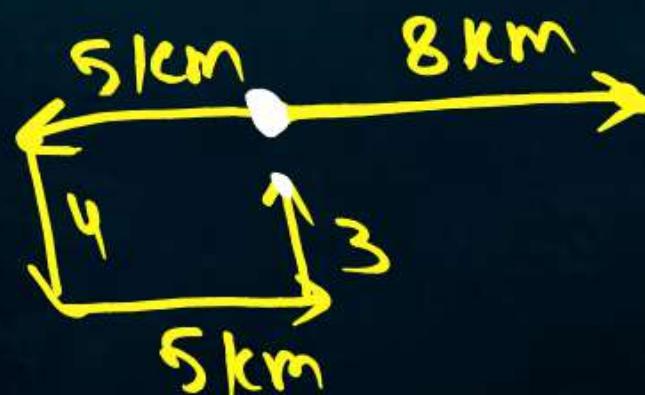
Rohit drove towards the North for 20 km. Then he turned left and drove another 30 km. After a while, he again turned left and drove 20 km and took some rest. Once more he turned left and drove 30 km to reach his town. In which direction is he driving now?

- (a) West
- (b) **East**
- (c) North
- (d) South



Rohan walked **8 km** towards the **East**. Then he **turned back** and walked **13 km**. Again, he **turned to his left** and **walked 4 km**. Now, he **walked 5 km after turning left**. At last, he **turned to his left** and **walked 3 km**. How far and in which direction is **he from the starting point**?

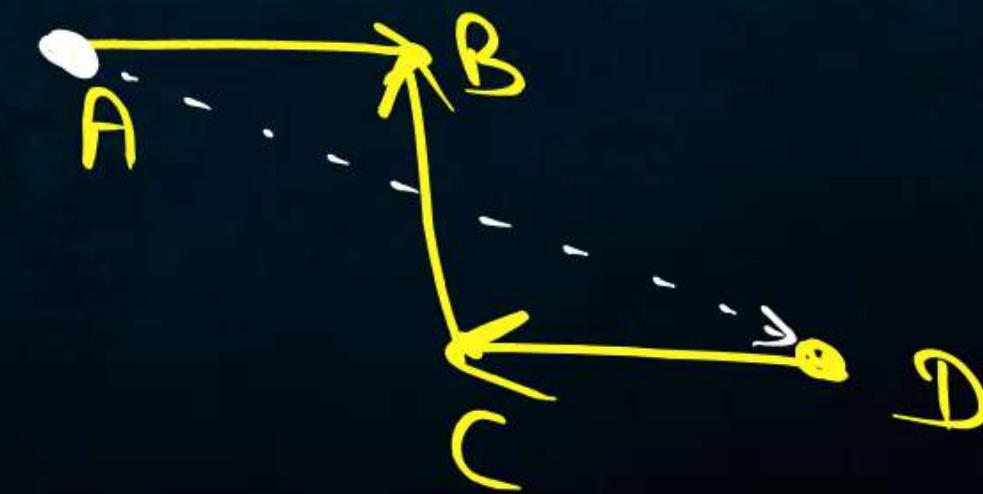
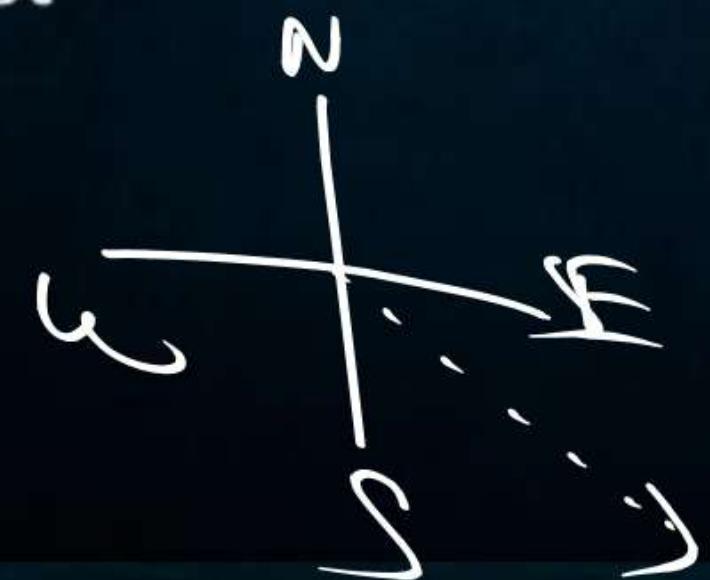
- (a) 3 km West
- (b) 1 km North
- (c) 1 km South
- (d) 4 km South



Five friends A, B, C, D and E are staying in the same locality. B's house is to the east of A's house and to the north of C's house. C's house is to the west of D's house.

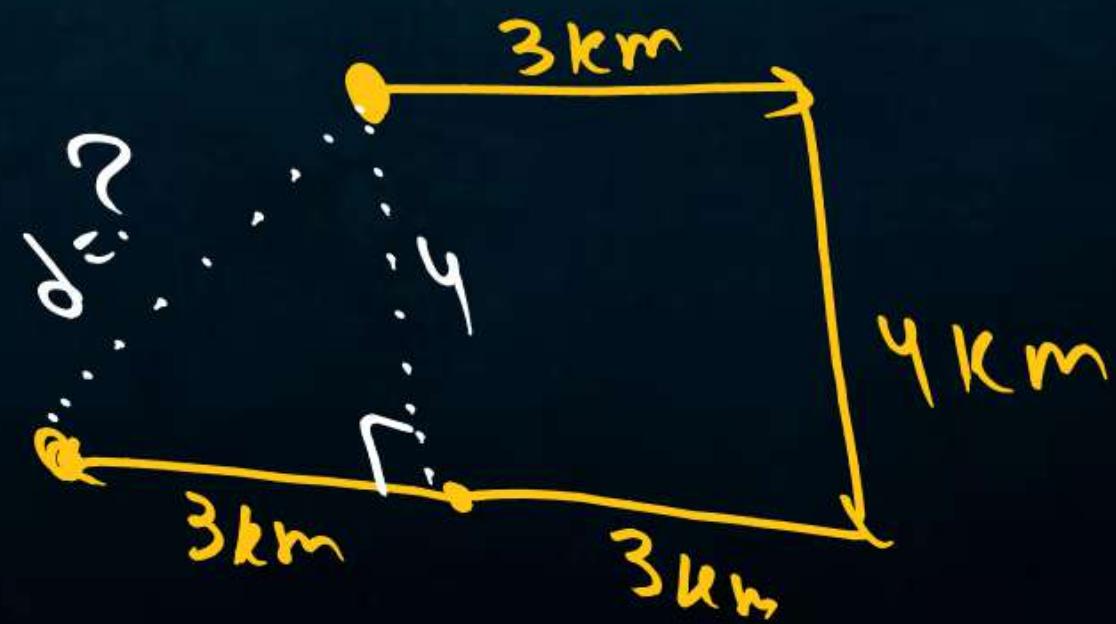
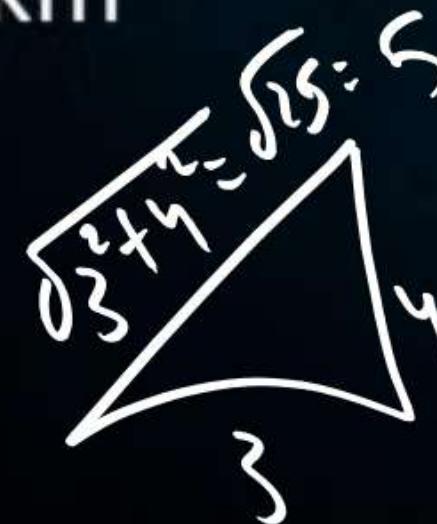
D's house is in which direction with respect to A's house?

- (a) North-East
- (b) South-East**
- (c) North-West
- (d) South-West



Kailash walks 3 km to the East and turns South and walks 4 km. After a while, he turns West and walks 6 km. How far is he from the starting point?

- (a) 7 km
- (b) 5 km
- (c) 6 km
- (d) 3 km



## Questions -

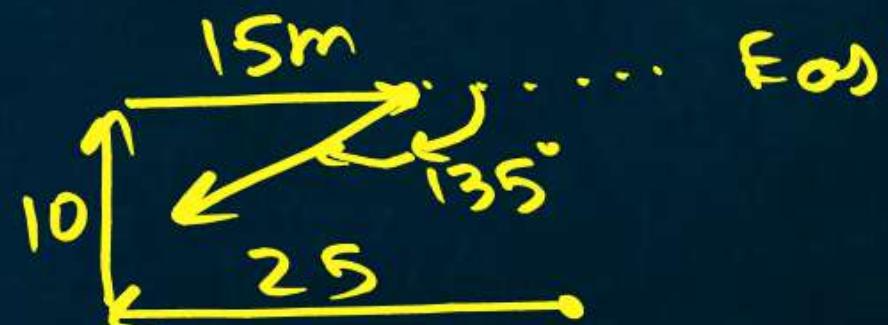
One morning, after sunrise, Vikram and Shailesh were standing in a lawn with their backs towards each other. Vikram's shadow fell exactly towards left hand side. Which direction was Shailesh facing?

- (a) South-West
- (b) West
- (c) South
- (d) South-East



Mohit walked 25 m towards the west direction. After a while, he turned to the right and walked 10 m. Again, he then turned to the right and walked 15 m. Now, he turned  $135^\circ$  and walked 30 m. In which direction is he moving now?

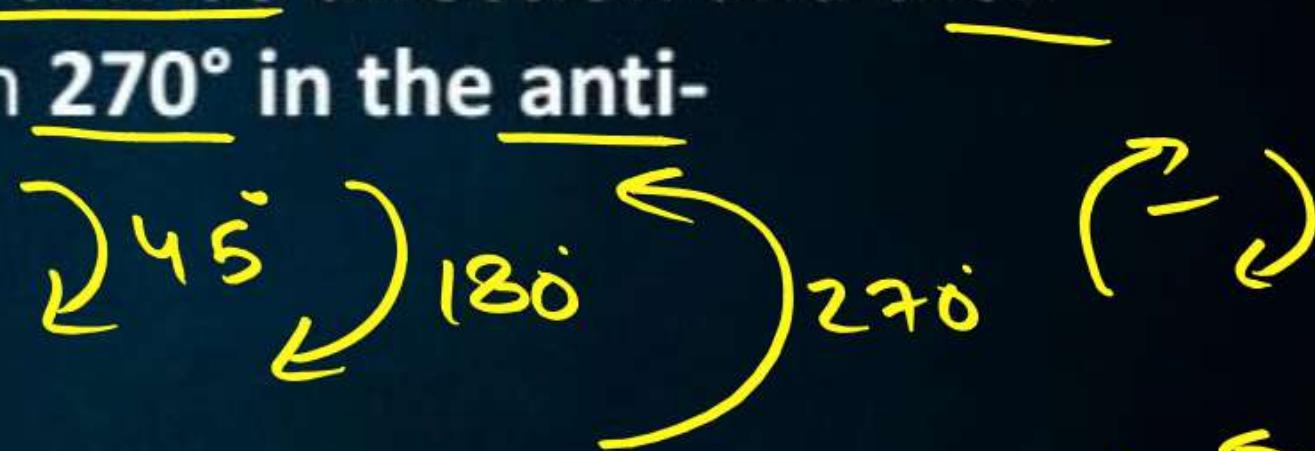
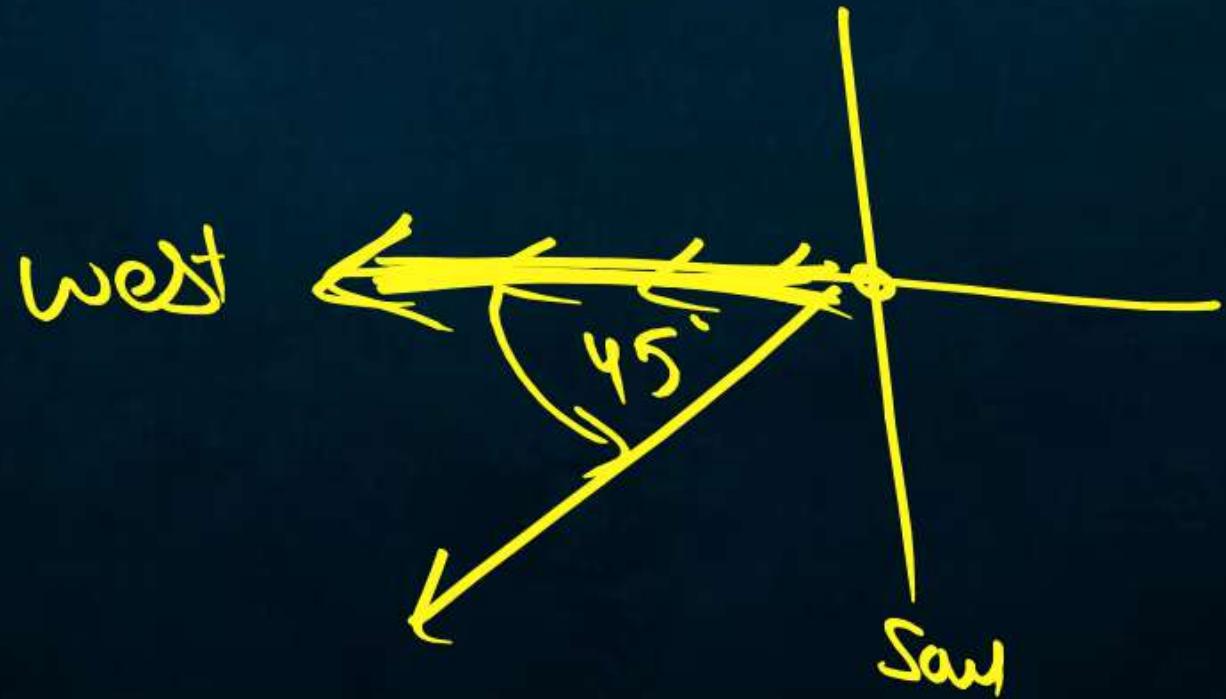
- (a) South
- (b) North-East
- (c) South-West**
- (D) West



A man is facing West. He turns  $45^\circ$  in the clockwise direction and then another  $180^\circ$  in the same direction and then  $270^\circ$  in the anti-clockwise direction.

Which direction is he facing now?

- (a) South
- (b) North-West
- (c) West
- (d) South-West



$$\begin{aligned} & -45^\circ - 180^\circ + 270^\circ \\ & = +45^\circ \end{aligned}$$

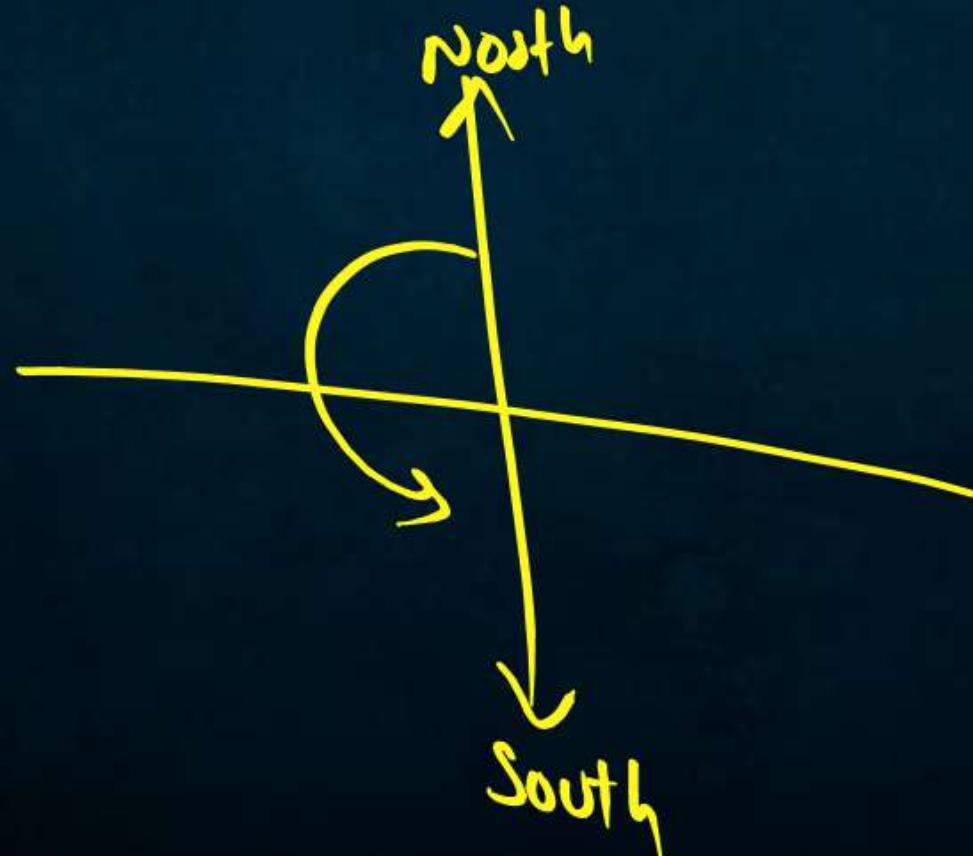
Anticlockwise  
 $45^\circ$

## Questions -

$$-90^\circ + 180^\circ + 90^\circ = +120^\circ \text{ anticlockwise}$$

Ana is facing the **North** direction. She turns **90° in the clockwise direction**. Again, after a while, she turns **180° in the anticlockwise direction** and then another **90° in the same direction**. Which **direction is she facing now?**

- (a) East
- (b) West
- (c) North
- (d) South



Questions -

$$-120^\circ + 180^\circ = +60^\circ$$

Anti-clockwise

Shrikant is facing East and turns  $120^\circ$  in the clockwise direction and then turns  $180^\circ$  in the anti-clockwise direction. Which direction is Shrikant facing now?

- (a) East
- (b) North-East
- (c) North
- (d) South-West

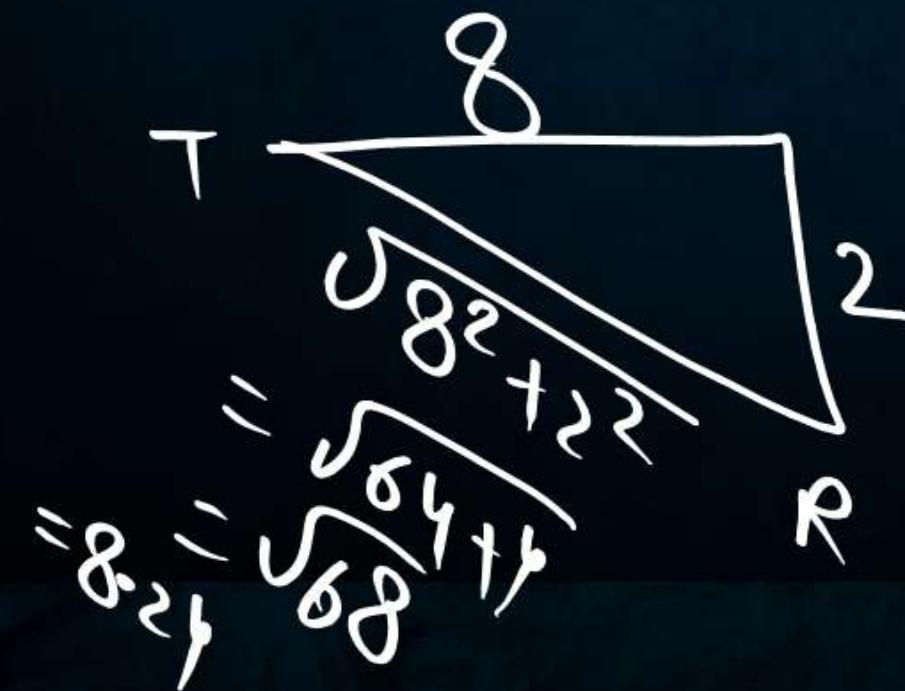
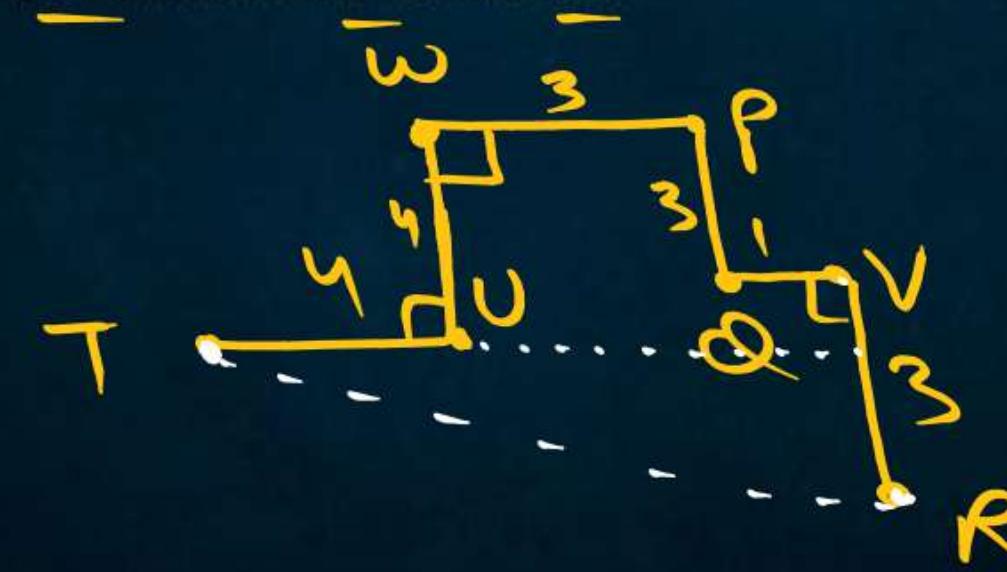


## Questions -

Maya starts at point **T** and walks straight to point **U**, which is **4 feet away**. She turns **left at  $90^\circ$**  and walks to **W**, which is **4 feet away**, turns  **$90^\circ$  right and goes **3 feet to P****, turns  **$90^\circ$  right and walks **3 feet to Q****, turns **left at  $90^\circ$**  and goes to **V**, which is **1 feet away**, and once again turns  **$90^\circ$  right and goes to R, 3 feet away**.

What is the distance between **T** and **R**?

- (a) 4 feet
- (b) 5 feet
- (c) 7 feet
- (d) 8 feet



## Questions -

If  $P \times Q$  means **P is to the south of Q**;

$P + Q$  means **P is to the north of Q**;

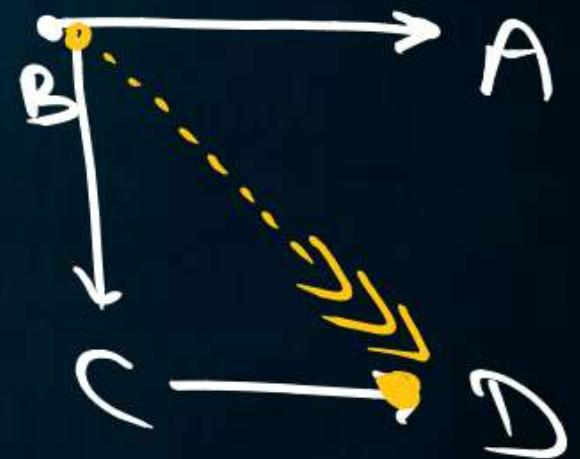
$P \% Q$  means **P is to the east of Q**;

$P - Q$  means **P is to the west of Q**;

then in case of **A \% B + C - D**,

**D** is in which direction with respect to **B**?

- (a) North-West
- (b) **South-East**
- (c) North-East
- (d) South-west



$$A \% B + C - D$$

A is in east of B      B is north of C      C is in west of D

F 10 15 20 Y  
5 15 20 25

A-1

B-2

C-3

D-4

E-5

f = f(x) = 5x - 6

G = G = 7

H = H = 8

I = I know = 9

J = 10

K = 11

L = 12

M = 13

N = N = 14

O = 15

P = 16

Q = 17

R = 18

S = 19

T = 20

U = 21

V = 22

W = 23

X = 24

Y = 25

Z = 26





## Questions -



In a park, there are five trees labeled A, B, C, D, and E. Tree A is to the right of Tree B. Tree C is to the left of Tree D. Tree A is left of C. Also, Tree D is to the right of Tree E. Which tree is in the middle?

- (a) Tree B
- (b) Tree A
- (c) Tree D
- (d) Tree C

$$B \rightarrow A$$

$$C \leftarrow D$$

$$A \rightarrow C$$

$$E \rightarrow D$$

$$B \rightarrow A$$

$$C \rightarrow D$$

$$E$$

B A C E D

X B A E C D

There are five houses P, Q, R, S, T. P is the immediate right of Q and T is the immediate left of R and immediate right of P. Q is on the right of S. Which house is located at the **extreme left end**?

- (a) P
- (b) R
- (c) S**
- (d) T

$Q \rightarrow P$   
P T R

S Q P T R

Five students P, Q, R, S, and T, are positioned in a row facing North. Among them, S is seated between T and Q, and Q is immediately to the left of R. P is immediately to the left of T. Who is positioned at the second right?

- (a) S
- (b) T
- (c) R
- (d) Q**

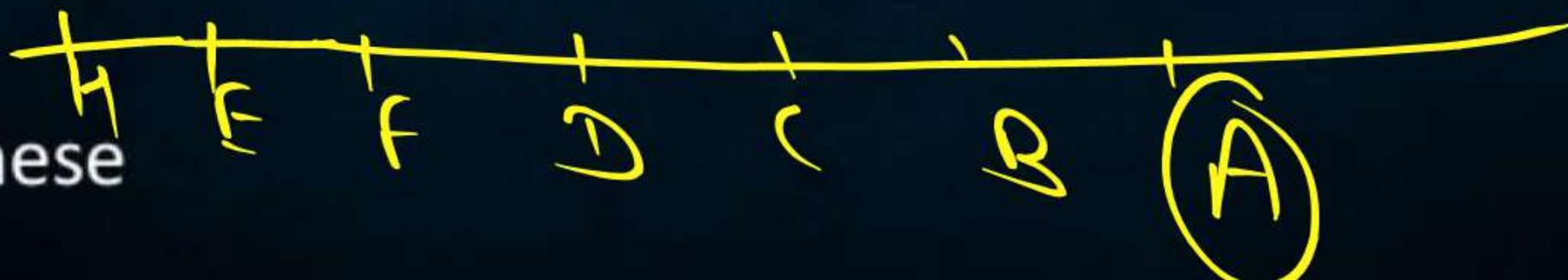


In a conference, seven participants labeled **A, B, C, D, E, F, and G** are seated in a row. The following statements are given:

- (i) **C** is seated to the **left of B**, but on the **right of D**.
- (ii) **A** is seated to the **right of B**.
- (iii) **F** is seated to the **right of E**, but to the **left of D**.
- (iv) **H** is seated to the **left of E**.

Which person is seated at the extreme right end?

- (a) H
- (b) D
- (c) A**
- (d) None of these



Questions -



Five boys  $A_1, A_2, A_3, A_4, A_5$  are sitting on a stair in the following way:

- (i)  $A_5$  is above  $A_1$
- (ii)  $A_4$  is under  $A_2$
- (iii)  $A_2$  is under  $A_1$
- (iv)  $A_4$  is between  $A_2$  and  $A_3$

Who is in the lowest position of the stair?

- (a)  $A_1$
- (b)  $A_3$**
- (c)  $A_5$
- (d)  $A_2$

$A_5$   
 $A_1$   
 $A_2$   
 $A_4$   
 $A_3$

Six persons A, B, C, D, E and F are sitting in two rows. Three in each row.

1. E is not at the end of any row
2. D is second to the left of F
3. C, the neighbor of E, is sitting diagonally opposite to D
4. B is the neighbour of F.

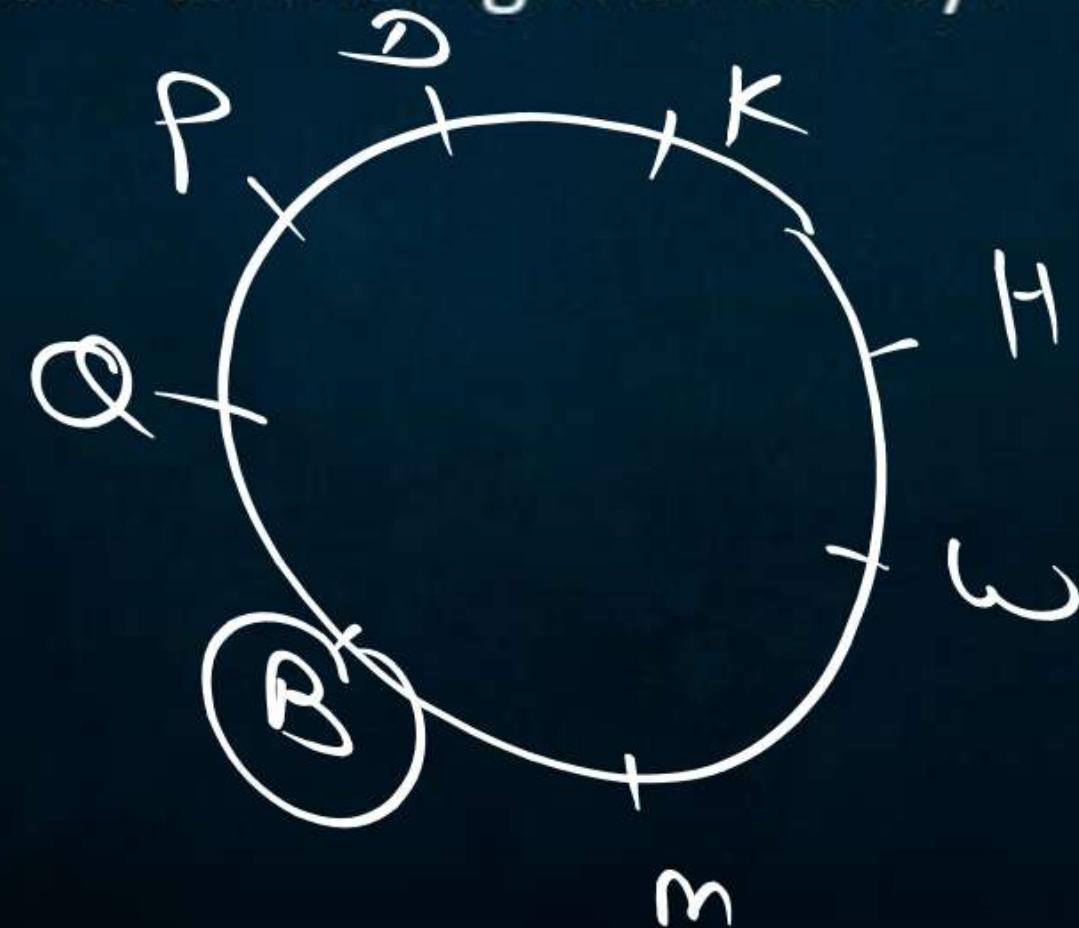
Which of the following are in one of the two rows?

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



Bunty, Dev, Manav, Kavya, Payal, Qasturba, Wasir and Himmat are sitting around a circle facing at the center. Manav is to the immediate right of Bunty who is 4th to the right of Kavya. Payal is 2nd to the left of Bunty and is 4th to the right of Wasir. Qasturba is 2nd to the right of Dev who is 2nd to the right of Himmat. Who is 3rd to the right of Bunty?

- (a) Wasir
- (b) Manav
- (c) Himmat**
- (d) None of these

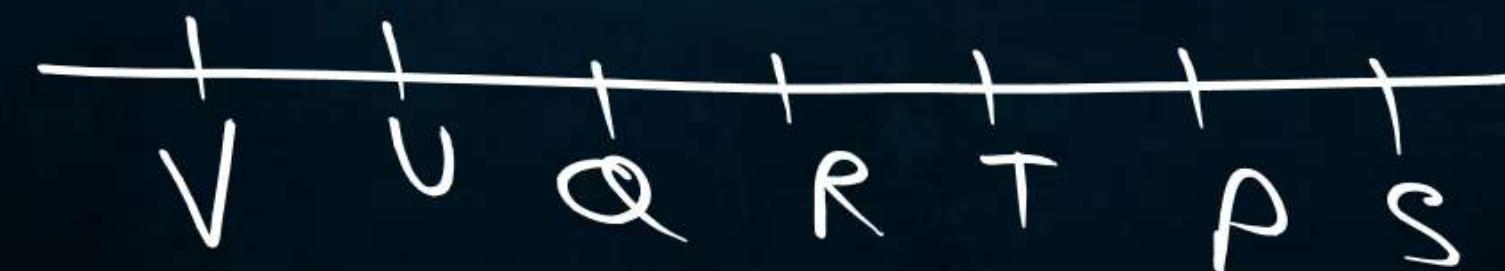


Seven friends P, Q, R, S, T, U and V are standing in a straight line facing north but not necessarily in the same order.

- U stands second from the left end of the line.
- Only **two people** stand between U and T.
- Only **one person** stands between P and R.
- V stands third to the left of R.
- Neither R nor U is an immediate neighbor of S.

Which of the following pairs stand at the **extreme ends** of the line?

- (a) Q, S
- (b) Q, P
- (c) Q, T
- (d) V, S



## Questions -

Six persons A, B, C, D, E and F are sitting in a circle facing the centre. A is facing D. C is left of A and right of E. D is between B and E. F is right of A.

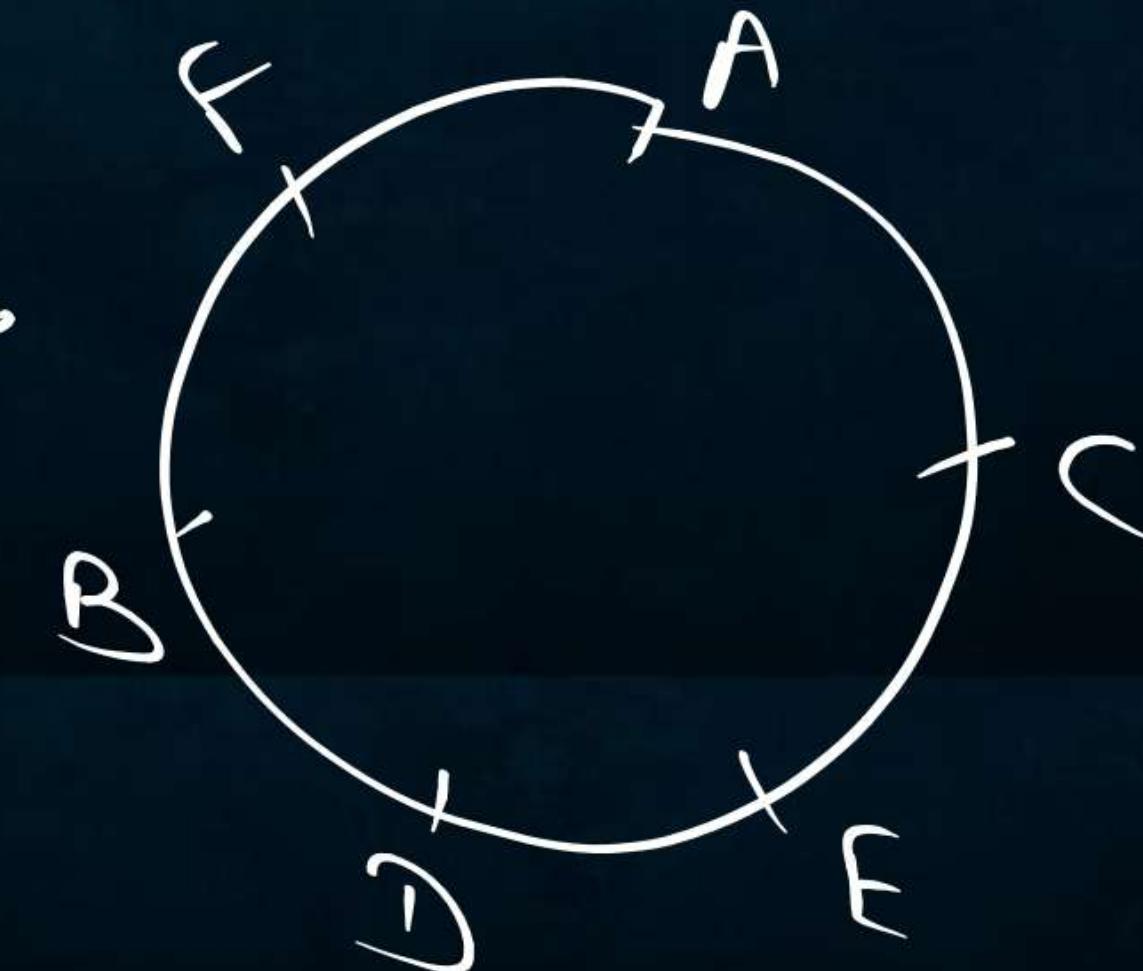
Which one of the following statements is incorrect?

(A) F and C are neighbours. *True*

(B) F is between A and B. *True*

(C) F and A are neighbours. *True*

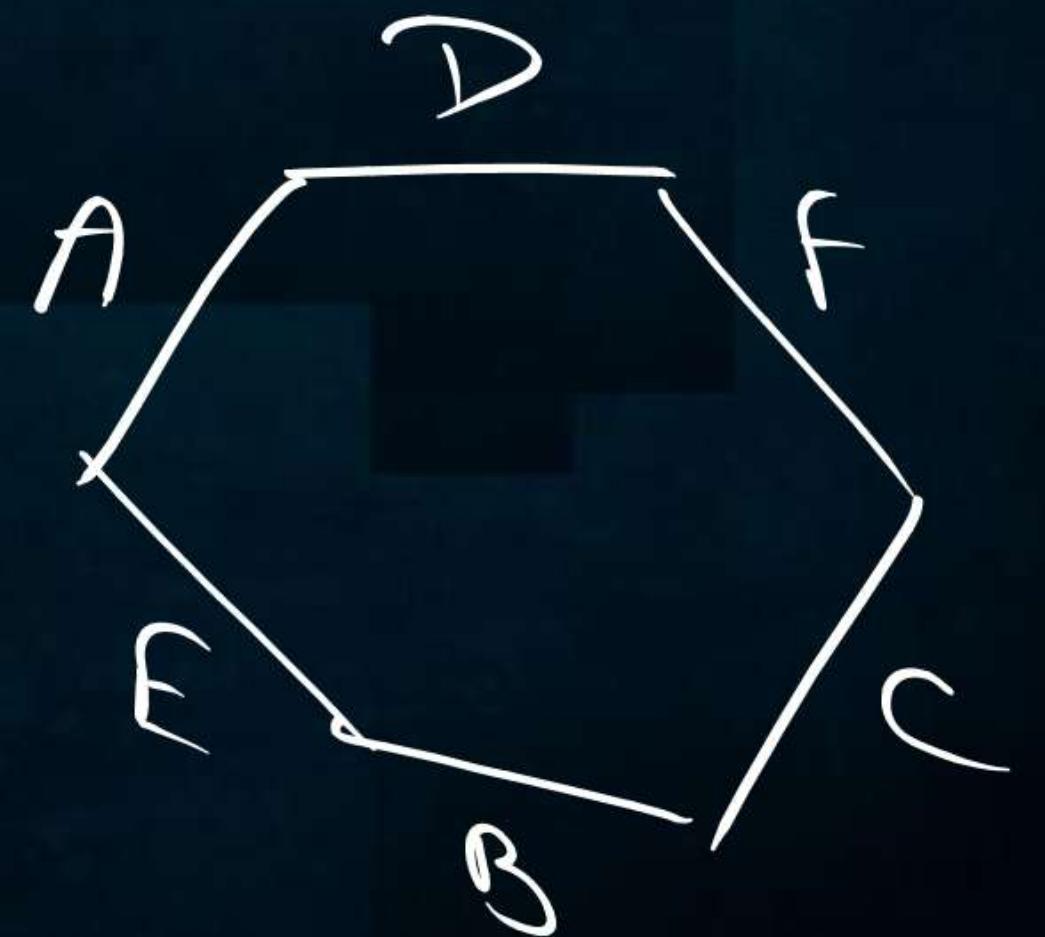
(D) B is left of D. *True*



Six people, A, B, C, D, E and F are sitting 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.

Which of the following is not a correct neighbour pair?

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

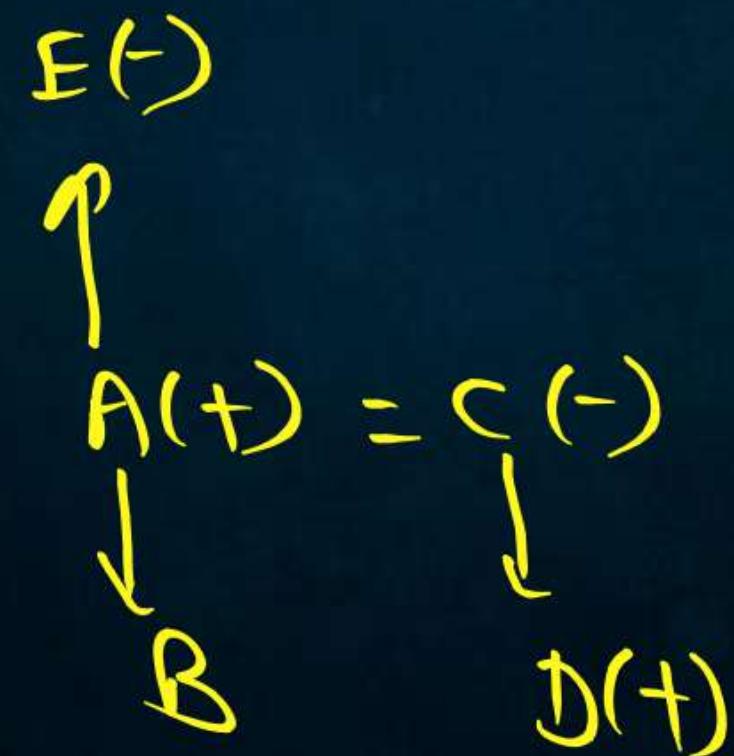
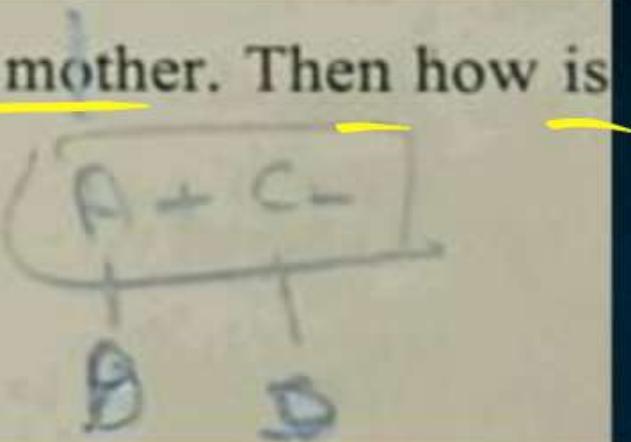




## Questions -

A is B's Father. C is B's mother. D is C's Son. E is A's mother. Then how is A related to D?

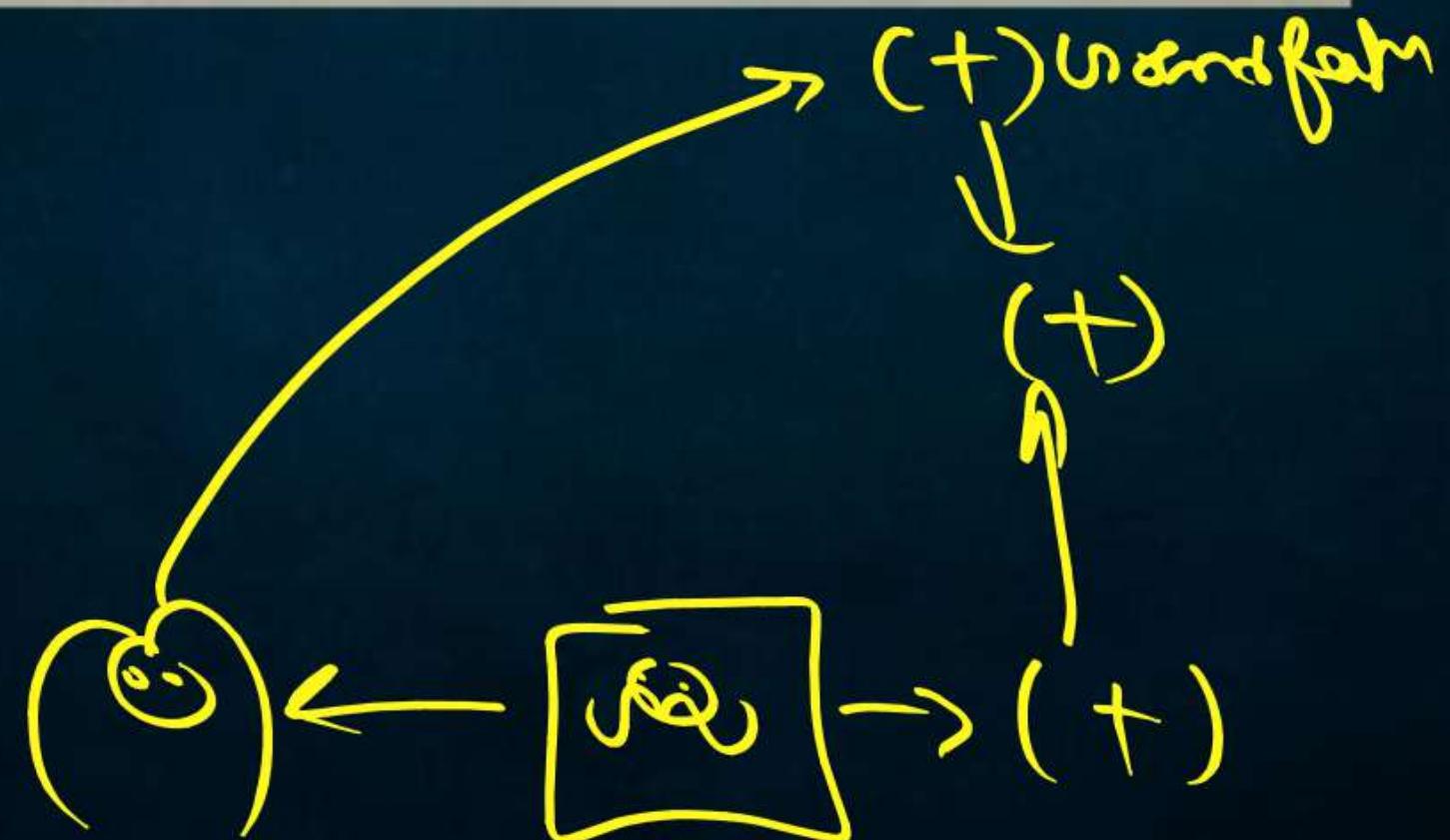
- (A) Grandson
- (B) Uncle
- (C) Granddaughter
- (D) Father



## Questions -

Pointing to a man in photograph, a woman said “The father of his brother is only son of my grandfather”, then how is that woman related to the man in photograph ?

- (A) Sister
- (B) Daughter
- (C) Mother
- (D) Aunty



A family consists of six members P, Q, R, S, T & U. There are two married couples. Q is a doctor and father of T; U is grandfather of R and is a contractor; S is grandmother of T and is a house-wife. There is one doctor, one contractor, one Professor, one house-wife and two students in the family. Find who is the husband of P

- (A) S
- (B) T
- (C) R
- (D) Q

Sol:

$U(+)$  = S(-)  
Contractor      Housewife

$Q(+)$  = P (-)  
Doctor      Professor

T      R  
Student      Housewife

## Questions -



Sandhya is the daughter-in-law of Shailesh and sister-in-law of Rajan. Manak is son of Shailesh and only brother of Rajan. Then, how Sandhya is related to Manak ?

- (A) Aunty
- (B) Sister-in-law
- (C) Cousin
- (D) Wife

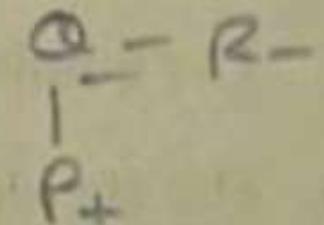
Sol :



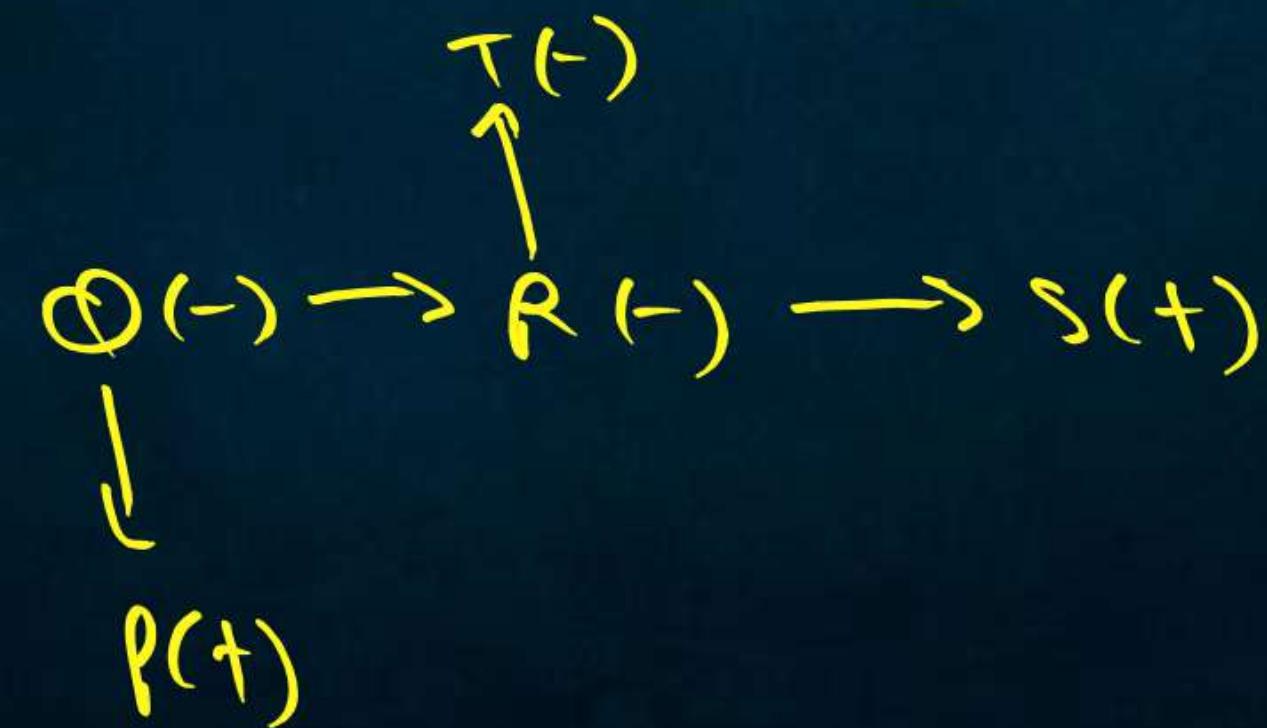
## Questions -

P is the son of Q while Q & R are sisters to one another. T is the mother of R. If S is son of T, how S is related to P ?

(A) Cousin (B) Brother  
(C) Maternal uncle (D) Nephew



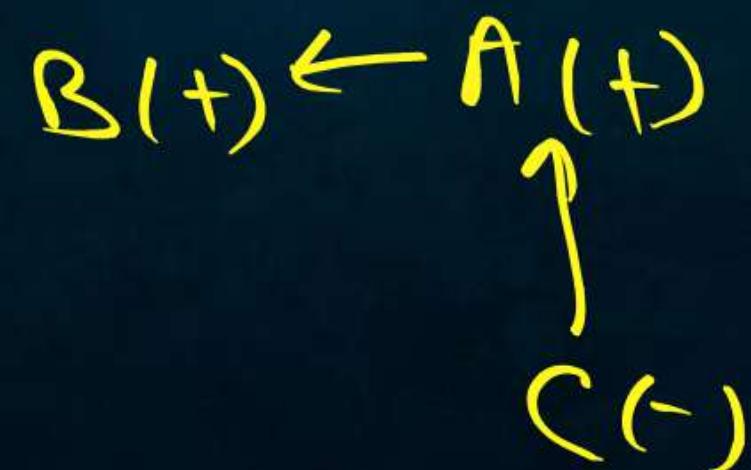
sol



A reads a book and find the name of the author familiar. The author 'B' is the paternal uncle of C. C is the daughter of A. How is B related to A?

- (a) **Brother**
- (b) Sister
- (c) Father
- (d) Uncle

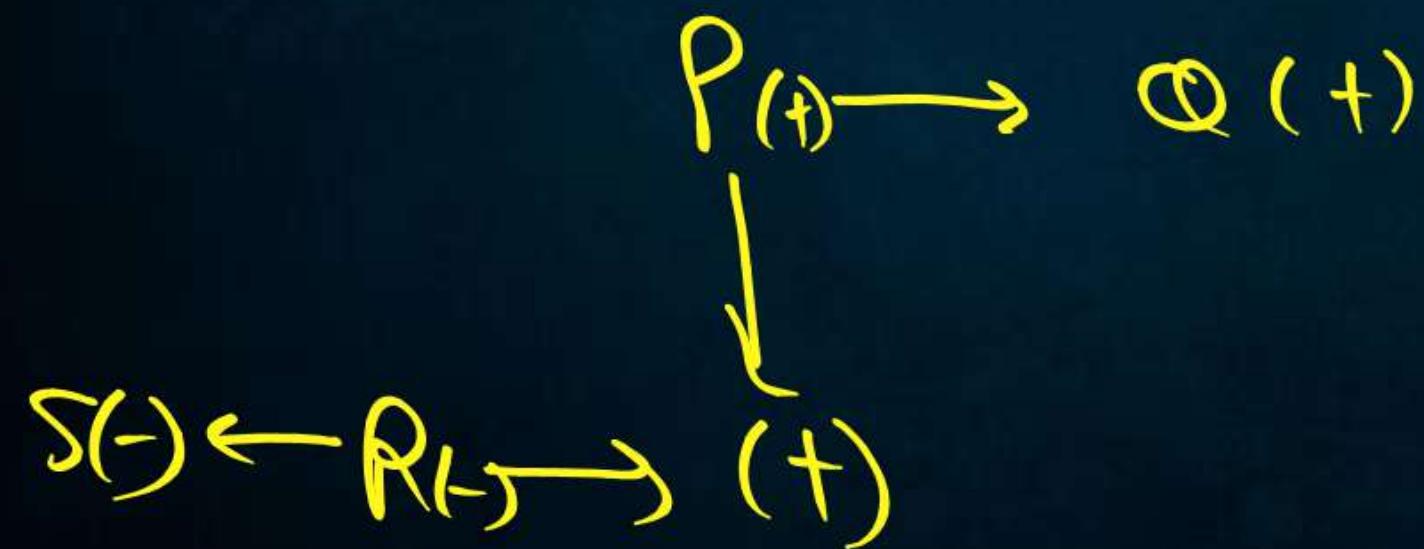
(1 mark)



## Questions -

P and Q are brothers R and S are sisters. P's son is R's brother. How is Q related to R?

- (a) Uncle
- (b) Brother
- (c) Father
- (d) Grandfather



## Questions -

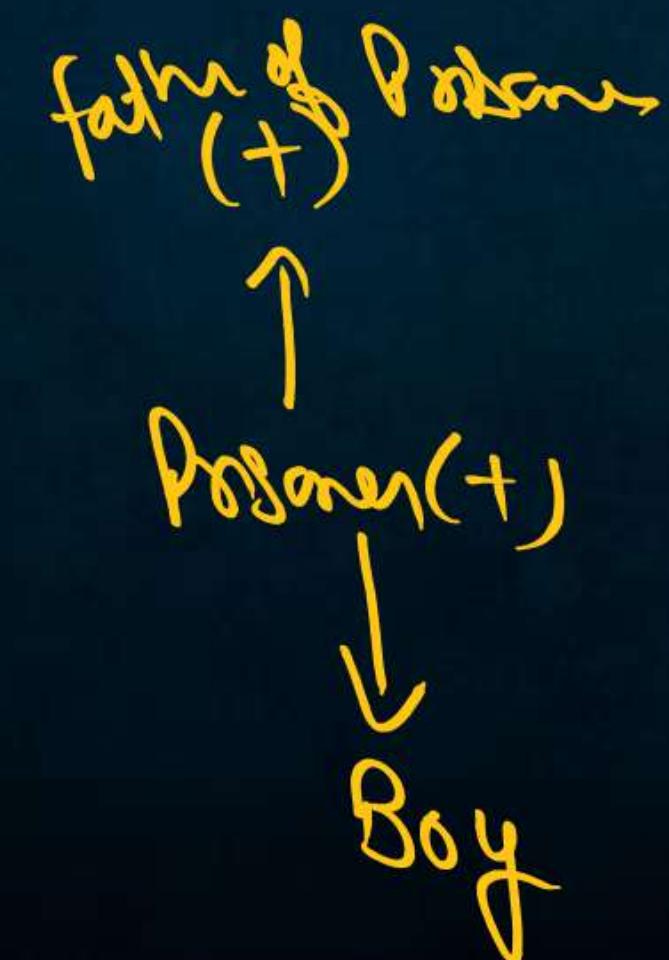


A prisoner introduced a boy who came to visit him to the jailor as "Brothers and sisters I have none, he is my father's son's son". Who is the boy?

- (a) Nephew
- (b) Son
- (c) Cousin

- (d) Uncle

Sq.



Six persons are seen together in a group. They are A, B, C, D, E and F. B is the brother of D, but D is not brother of B. F is the brother of B, C and A are married together. F is son of C, but C is not the mother of F. E is the brother of A. The number of female members in the group is:

(a) 1  
(c) 3

~~(b) 2~~  
(d) 4

so:

$$\begin{array}{c} C(+)= A(-) \rightarrow E(+) \\ \downarrow \\ F(+) \leftarrow B(+) \rightarrow D(-) \end{array}$$

A girl Introduced, a boy as the son of the daughter of father of her uncle. The boy is girl's

- (a) Son
- (b) Brother
- (c) Son-in-Law
- (d) Uncle

Sol:

