

CA FOUNDATION

QUANTITATIVE APTITUDE

**COMPLETE LOGICAL
REASONING IN
ONE SHOT**



॥ संकट मोचन SERIES ॥



Number Series

Coding Decoding

Odd Man Out

odd no. = 1, 3, 5, ...

even no. = 2, 4, 6, ...

Prime no = 2, 3, 5, 7, 11, 13, 17, ...

1 to 20
⇓
Square

1 to 10
⇓
Cube.

A = 1

B = 2

C = 3

D = 4

E = 5

F = 6

G = 7

H = 8

I = 9

J = 10

K = 11

L = 12

M = 13

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

$$27 - 17 = 10$$

$$27 - 20 = 7$$

$$27 - 7 = 20$$

G

H

I know

10, 18, 28, 40, 54, ?, 88

(a) 70

(b) 86

(c) 87

(d) 98



4832, 5840, 6848, 7856 ?

(a) 8864

(b) 8815

(c) 8846

(d) 8887

4 8 3 2

5 8 4 0

6 8 4 8

7 8 5 6

8 8 6 4

48, 24, 96, ? 192

(a) 48

(b) 47

(c) 44

(d) 54

48, 24, 96, 48, 192
÷ 2 × 4 ÷ 2 × 4

2, 3, 3, 5, 10, 13, 39, ?, 172, 177

(a) 42

(b) 44

(c) 43

(d) 40

2, 3, 3, 5, 10, 13, 39, 43, 172, 177
+1, $\times 1$, +2, $\times 2$, +3, $\times 3$, +4, $\times 4$, +5

2, 7, 27, 107, 427, ?

(a) 1707

(b) 4027

(c) 4207

(d) 1207

2, 7, 27, 107, 427, 1707

$\times 4 - 1$ $\times 4 - 1$ $\times 4 - 1$ $\times 4 - 1$ $\times 4 - 1$

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

(a) EMMJI

(b) EFMIJ

(c) EMFIJ

(d) JIFEM

M A D R A S → N B E S B T

+1

D E L H I →

E F M I J

If DELHI is coded 73541 and CALCUTTA as 82589662, How can CALICUT be coded?

(a) 5279431

(b) 5978213

(c) 8251896

(d) 8543962

DELHI \rightarrow 73541

CALCUTTA = 82589662

CAL I CUT
825 1896

If in a certain code language NAME is written as 4258 then what is coded as MEAN ?

(a) 2458

(b) 5842

(c) 8524

(d) 5824

NAME = 4 2 5 8

MEAN
↓ ↓ ↓ ↓
5 8 2 4

If PALAM could be given the code number 43, what code number can be given to SANTACRUZ?

(a) 123

(b) 85

(c) 120

(d) 125

P A L A M = 4 3
↓ ↓ ↓ ↓ ↓
16 1 12 1 13

S A N T A C R U Z = 121
↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
19 1 14 20 1 3 18 21 26

In a certain code '256' means 'you are good', '637' means 'we are bad' and '358' means 'good and bad'. Which of the following represents 'and' in that code?

(a) 2

(b) 5

(c) 8

(d) 3

→ 2 5 6 = You Are Good = 5
→ 6 3 7 = we Are Bad = 3
3 5 8 = Good {And} Bad = 3

If ROSE is coded as 6821, CHAIR is coded as 73456 and PREACH is coded as 961473, what will be the code for SEARCH?

(a) 246173

(b) 214673

(c) 216473

(d) 214763

Sol.

ROSE = 6821

CHAIR = 73456

PREACH = 961473

SEARCH = 214873

Find the missing number in the following series ?

3, 5, 5, 19, 7, 41, 9, ?, 11, 109

(a) 71

(b) 61

(b) 69

(d) 79

Handwritten solution showing the series: 3, 5, 5, 19, 7, 41, 9, 71, 11, 109. The differences between terms are marked above the series: 14 (between 3 and 5), 22 (between 5 and 19), 30 (between 19 and 7), and 38 (between 7 and 41). The missing number 71 is boxed.

Find the odd man out:

34, 105, 424, 2123, 12756.

(a) 12756

(b) 2123

(c) 424

(d) 34

$$2125 \times 6 + 6 = 12756$$

34, 105, 424, 2123, 12756

$\times 3 + 3$ $\times 4 + 4$ $\times 5 + 5$

2125

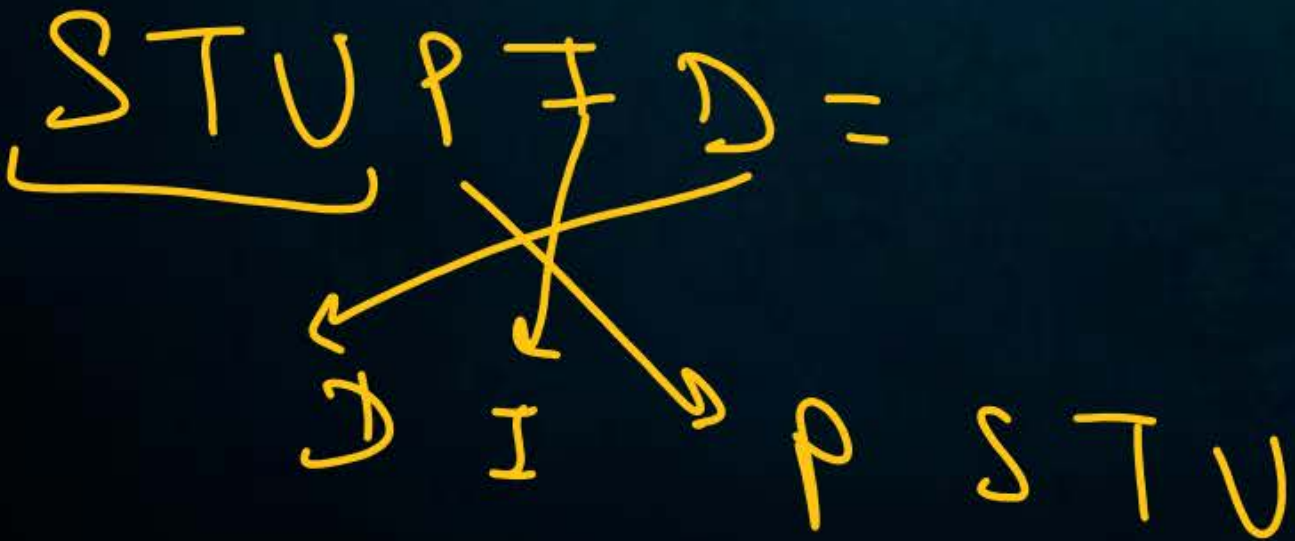
If in a certain code "THANKS" is written as "SKNTHA" then how is "STUPID" written?

- (a) DIPUTS
- (b) DISPUT
- (c) DIPUST
- (d) DIPSTU

THANKS = SKNTHA



STUPID =



Find the next number in the series:

Q1F, S2E, U6D, W21C?

(a) Y66B

(b) Y44B

(c) Y88B

(d) Z66B

↓
Y
↓
B

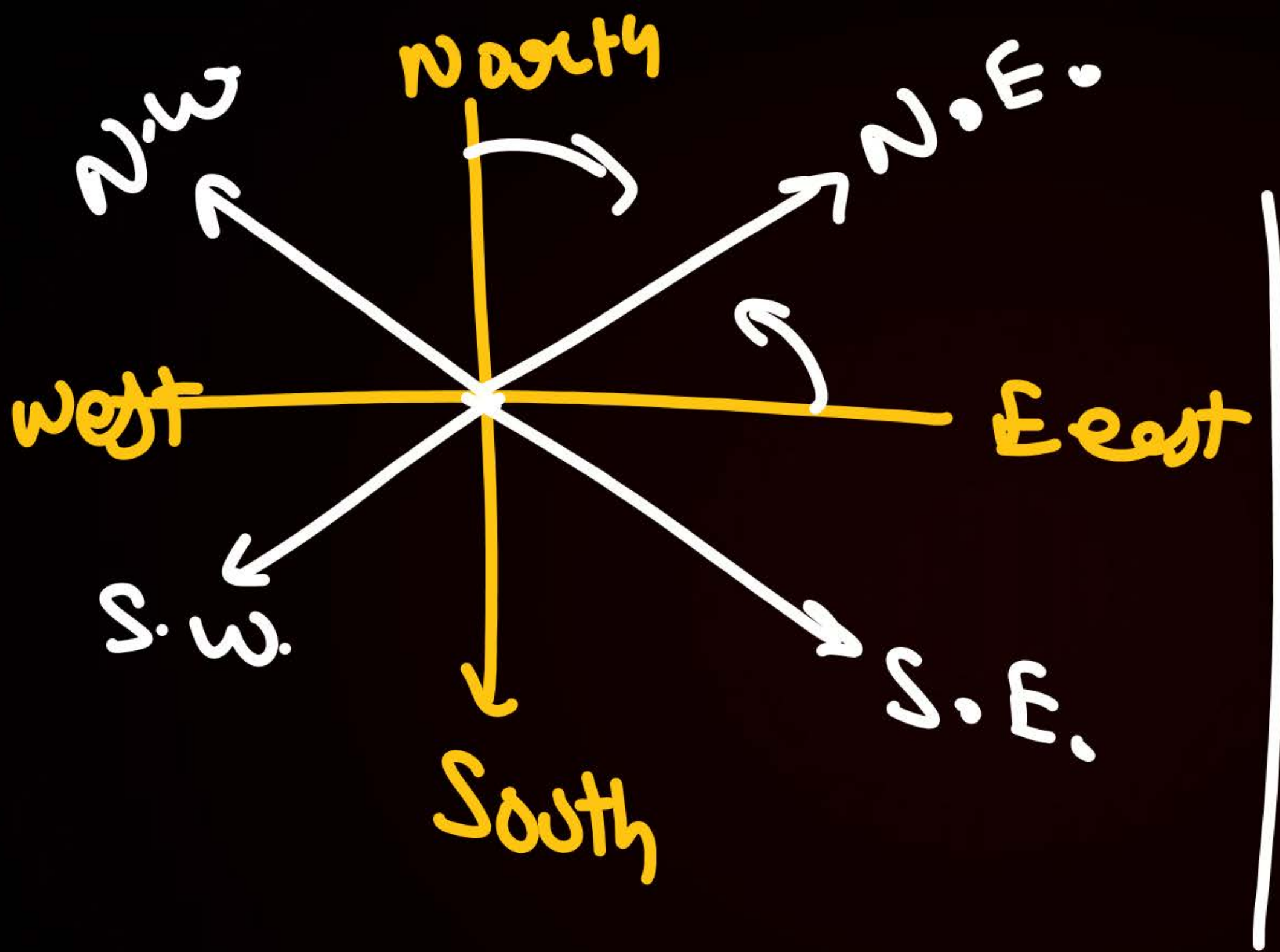
~~1, 2, 6, 21~~

1, 2, 6, 21, 88

$\times 1 + 1$ $\times 2 + 2$ $\times 3 + 3$ $\times 4 + 4$



Diamectron Test

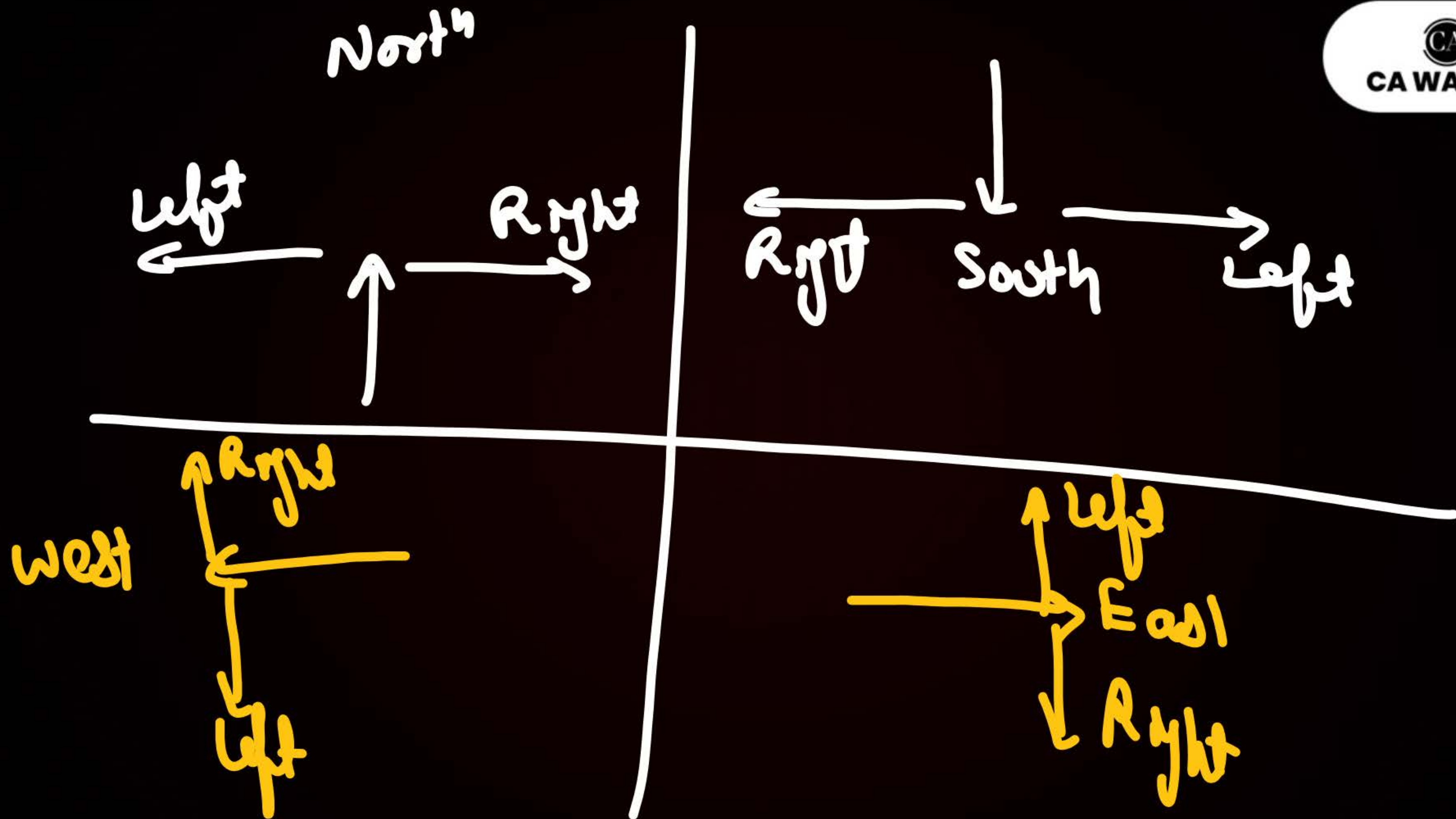


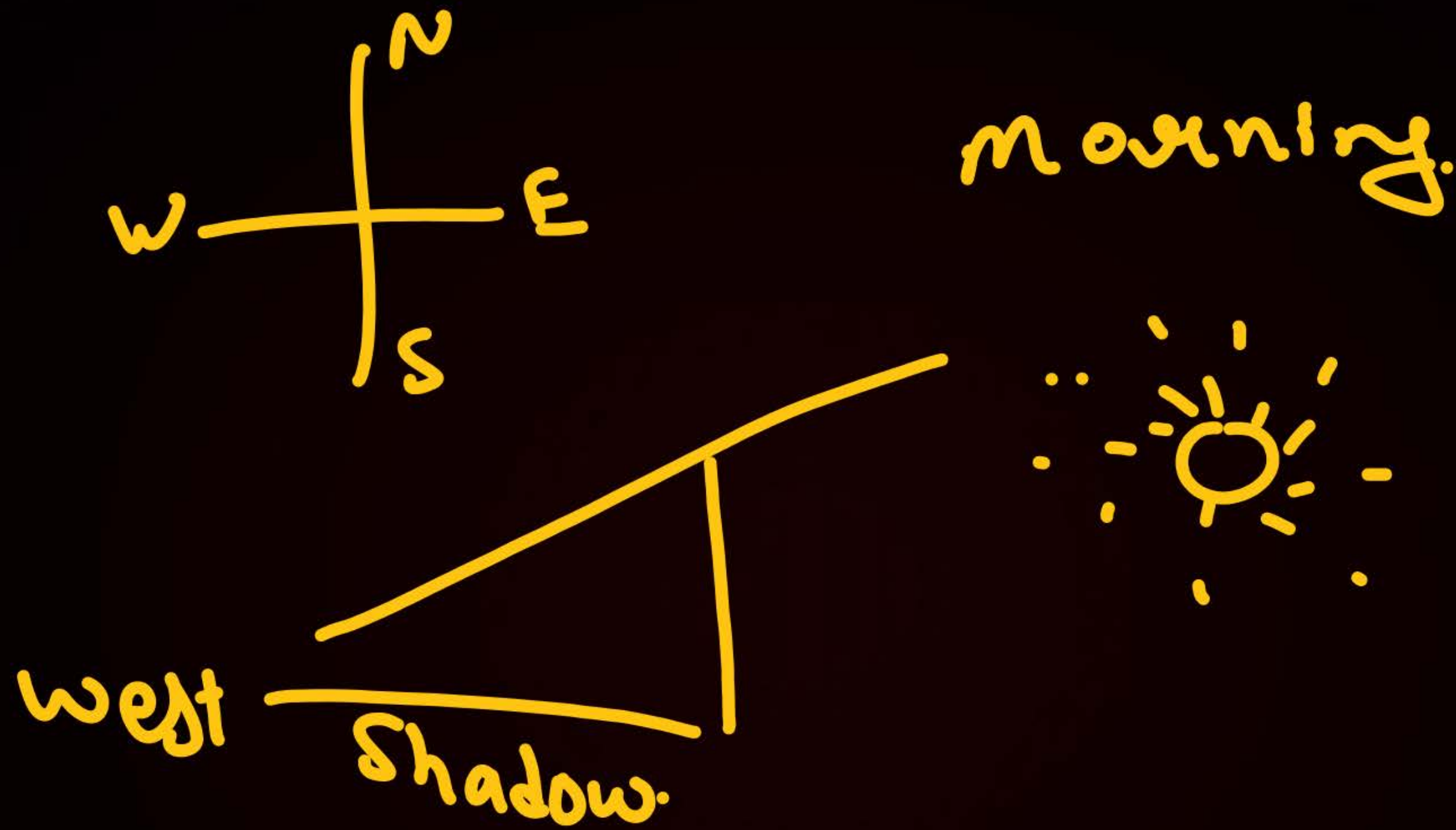
Clockwise



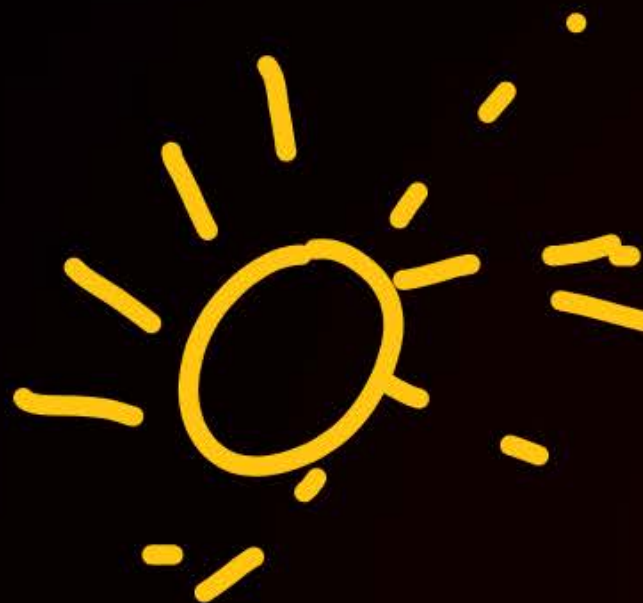
Anticlockwise.







Evening.

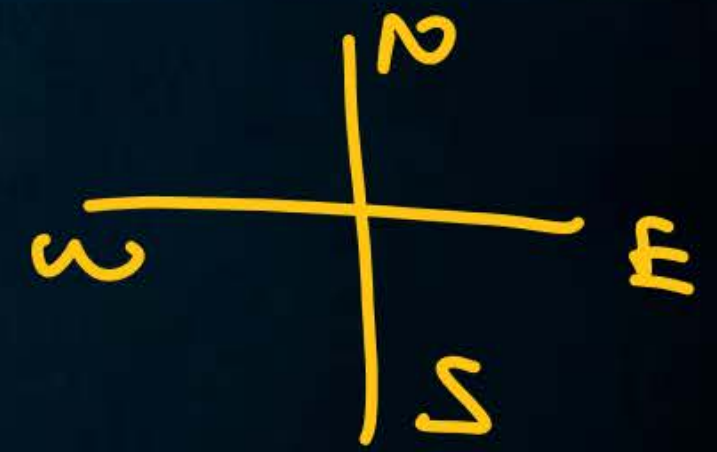
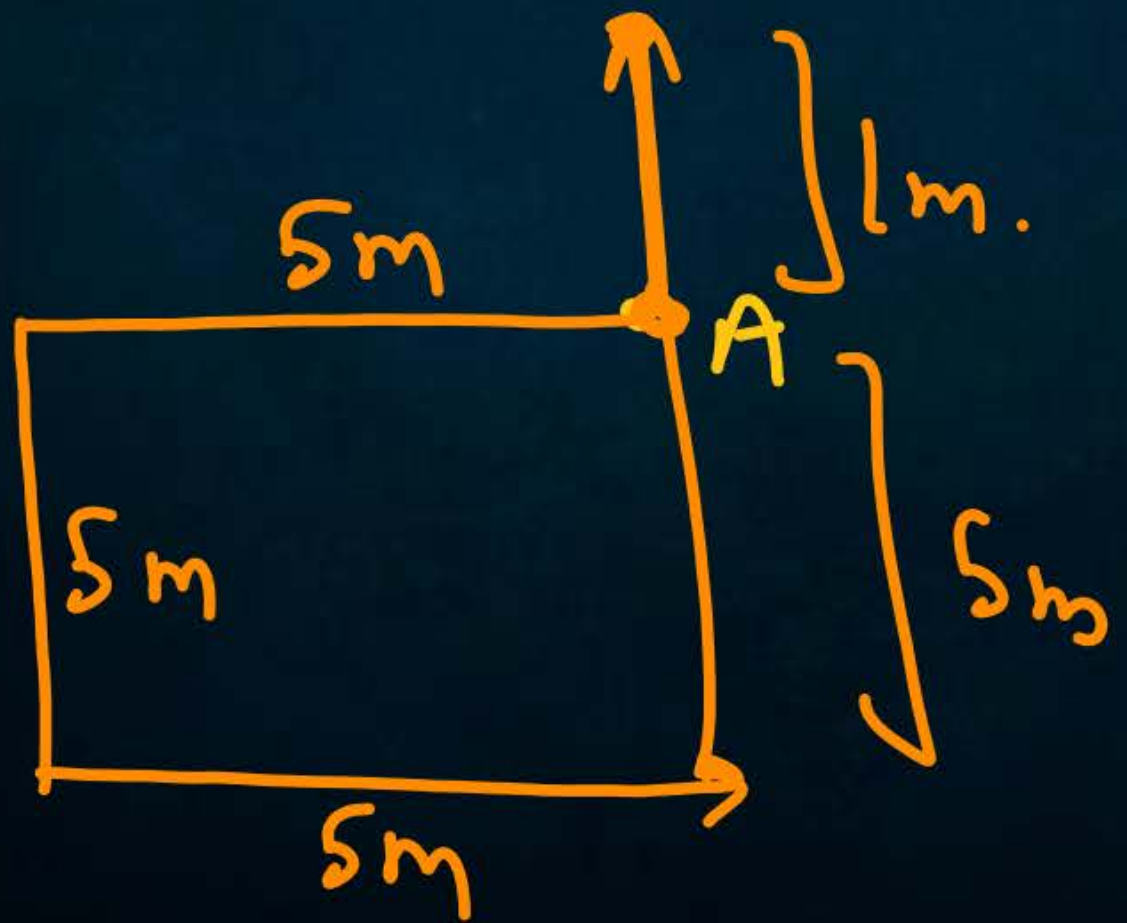


Shadow → East

Q. Jay (Starts from A) walked 5 m towards West, then turned left and walked 5 m. again turned left and walked 5 m. again turned left and walked 6 m. How far he is from A?

- (a) 1 m (b) 2 m
(c) 3 m (d) 4 m

Sol:



Q.

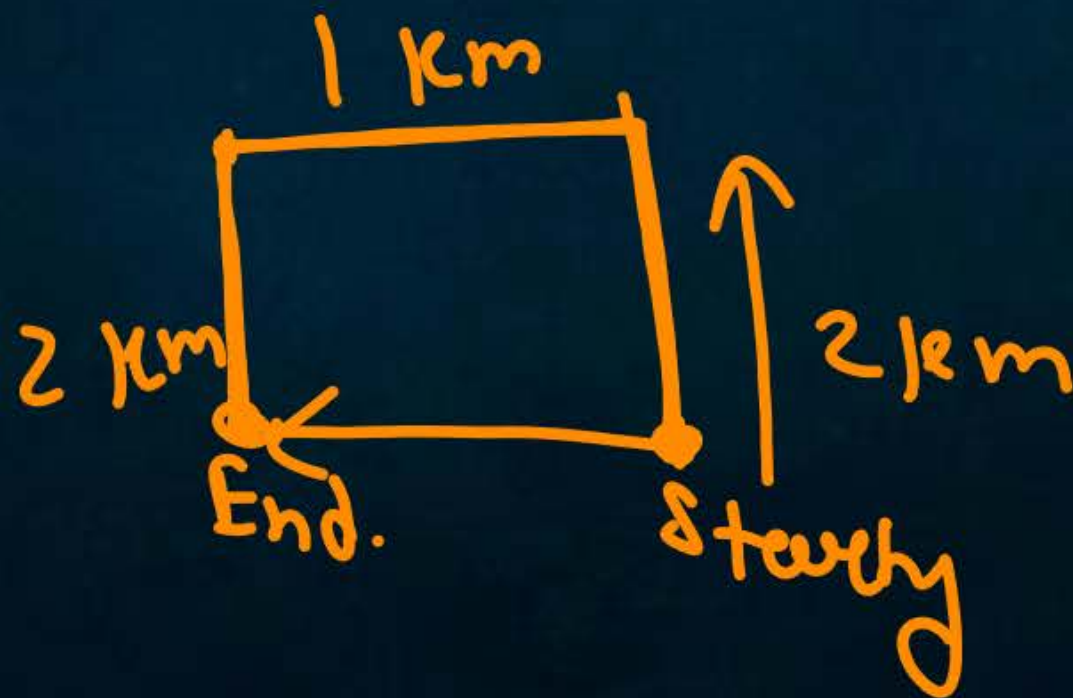
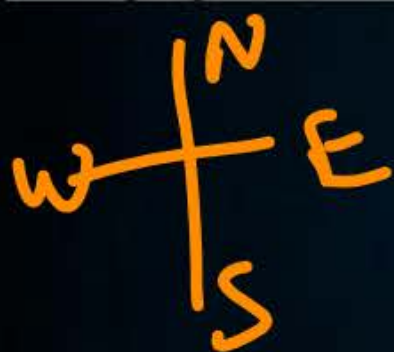
A boy rode his bicycle Northward, then turned left and rode 1 km and again turned left and rode 2 km. He found himself 1 km West of his starting point. How far did he ride Northward initially?

(a) 1 km

(c) 3 km

(b) 2 km

(d) 4 km



A man walks 2 km towards North. Then he turns to East and walks 10 km. After this he turns to North and walks 3 km. Again he turns towards East and walks 2 km. How far is he from the starting point?

(a) 10 km

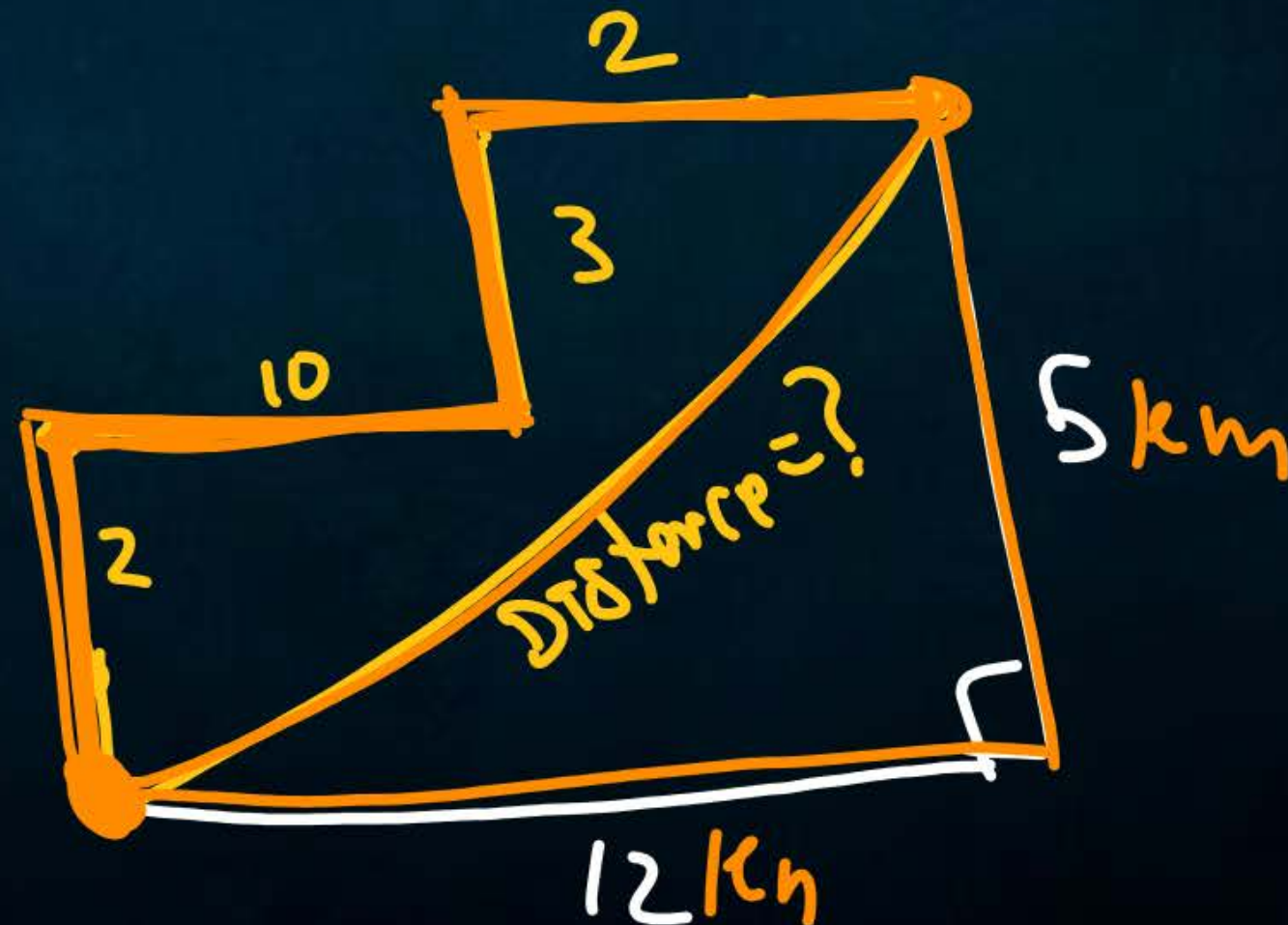
☒ (b) 13 km

(c) 15 km

(d) 17 km

$$H^2 = 8^2 + 5^2$$
$$H^2 = 12^2 + 5^2$$
$$H^2 = 169$$

$H = 13$



Q. One day morning after sunrise, Vimal started to walk. During this he met Sheru who was coming from opposite direction. Vimal watch the shadow of Sheru to the right of him (Vimal) to which direction Vimal was facing?

(a) South

(b) North

(c) East

(d) West

Shadow

Vimal



Sheru

South



Q. Shivam started from his house towards West. After walking a distance of 15 km he turned to the right and walked 10 km. He again turned to the right and walked 5 km. After this he is to turn right at 135° and covered 10 km. In which direction should he go?

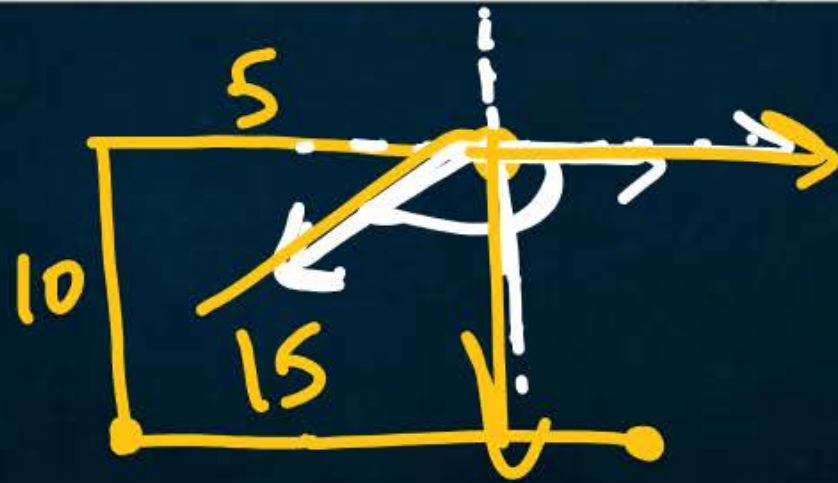
(d) South

(c) S-E

~~(b) S-W~~

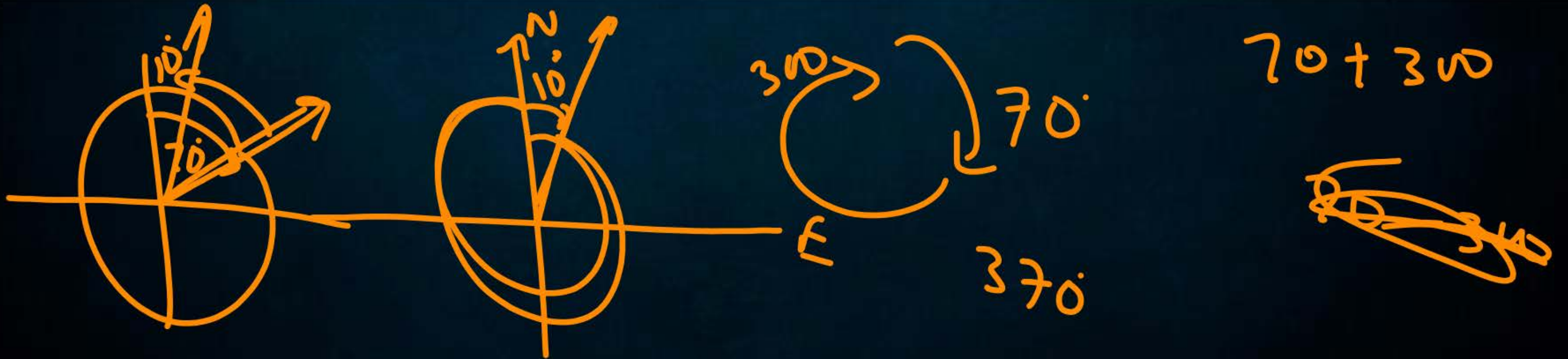
(d) North

Sol.



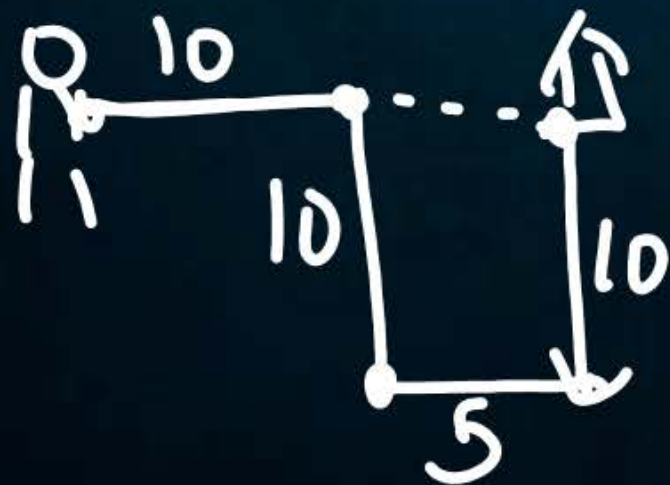
A person facing North moves 70° in clockwise direction. He again moved 300° in clockwise direction. In which direction is he facing now?

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



One day, Ram left home and cycled 10 km southward, turned right and cycled 5 km and turned right and cycled 10 km and turned left and cycled 10 km. How many kilometers will he have to cycle to reach his home straight?

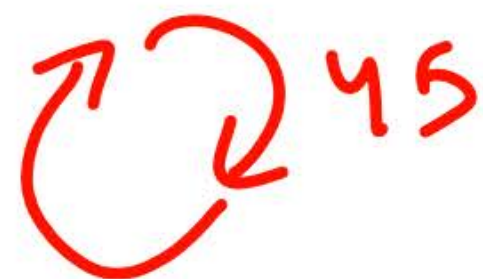
- (a) 10
- ☒ (b) 15
- (c) 20
- (d) 25



$$10 + 5 = 15$$

A man is facing west he turns 45 degrees in the clockwise direction and then another 180 degrees in the same direction and then 270 degrees in the anticlockwise direction. Which direction is he facing now?

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



$$45 + 180 - 270$$

$$-45^\circ$$

45 Anti.



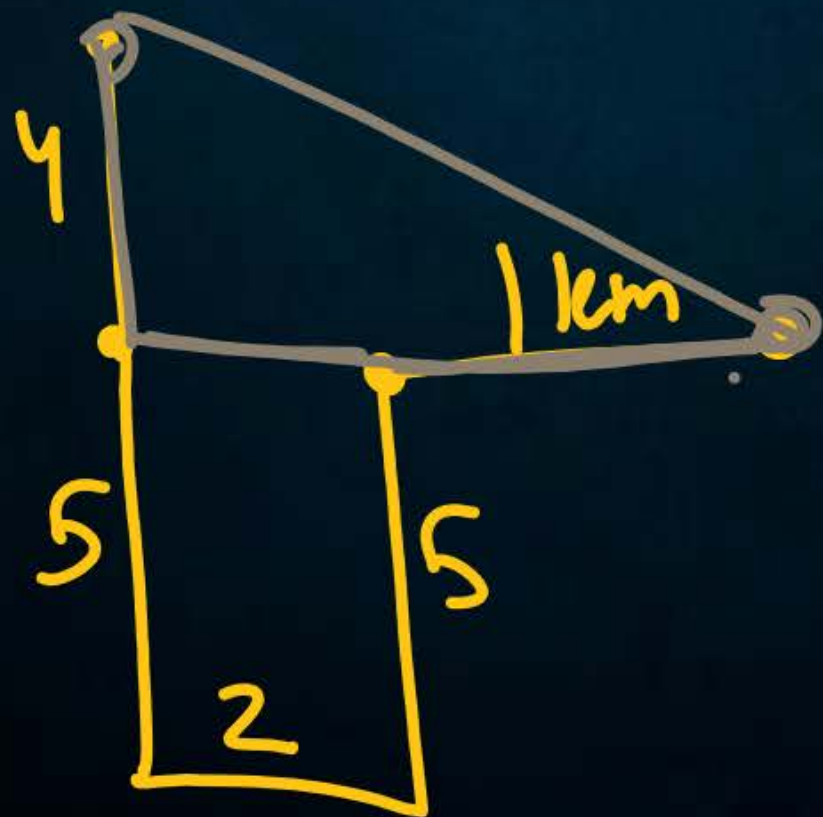
A person walks 1 km (kilometre) towards West and then he turns to South and walks 5 km. Again, he turns to West and walks 2 km. After this he turns to North and walks 9 km. How far is he from his starting point?

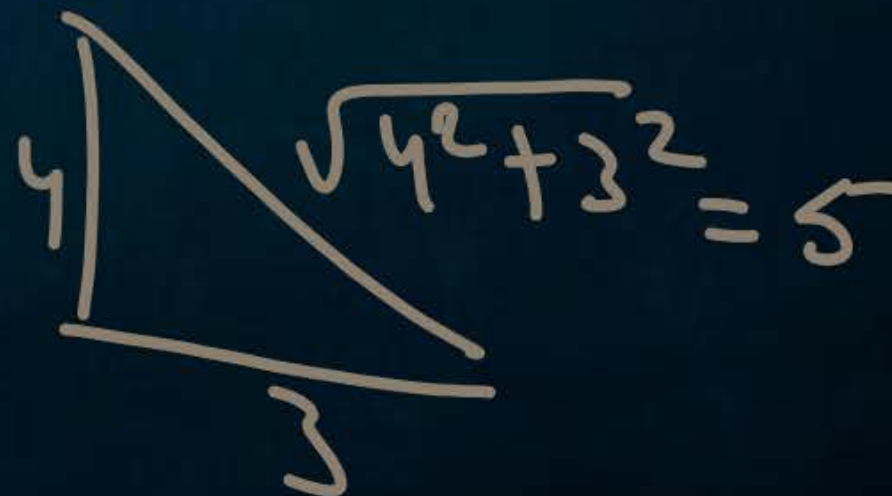
(a) 3 km

(b) 4 km

(c) 5 km

(d) 7 km





$$\sqrt{4^2 + 3^2} = 5$$

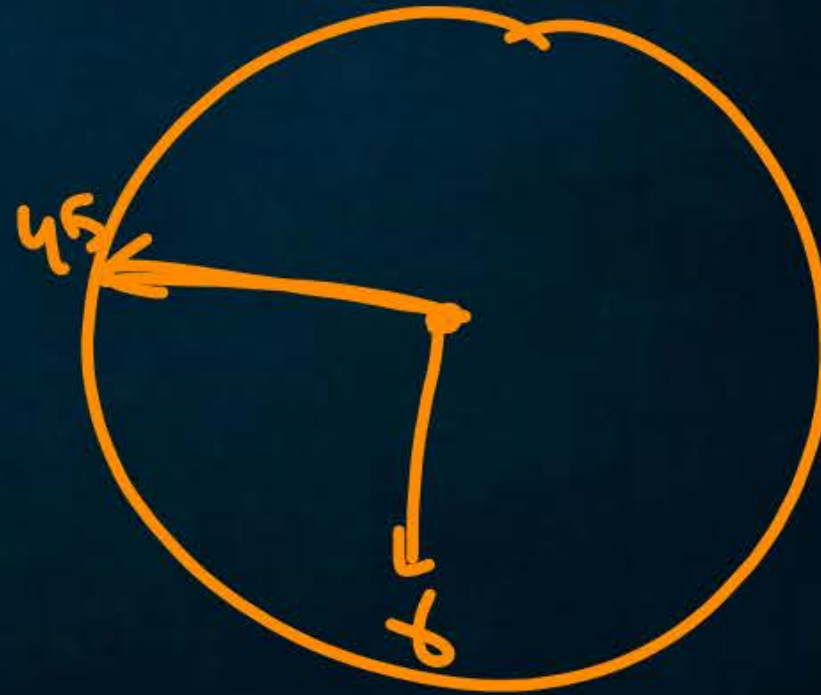
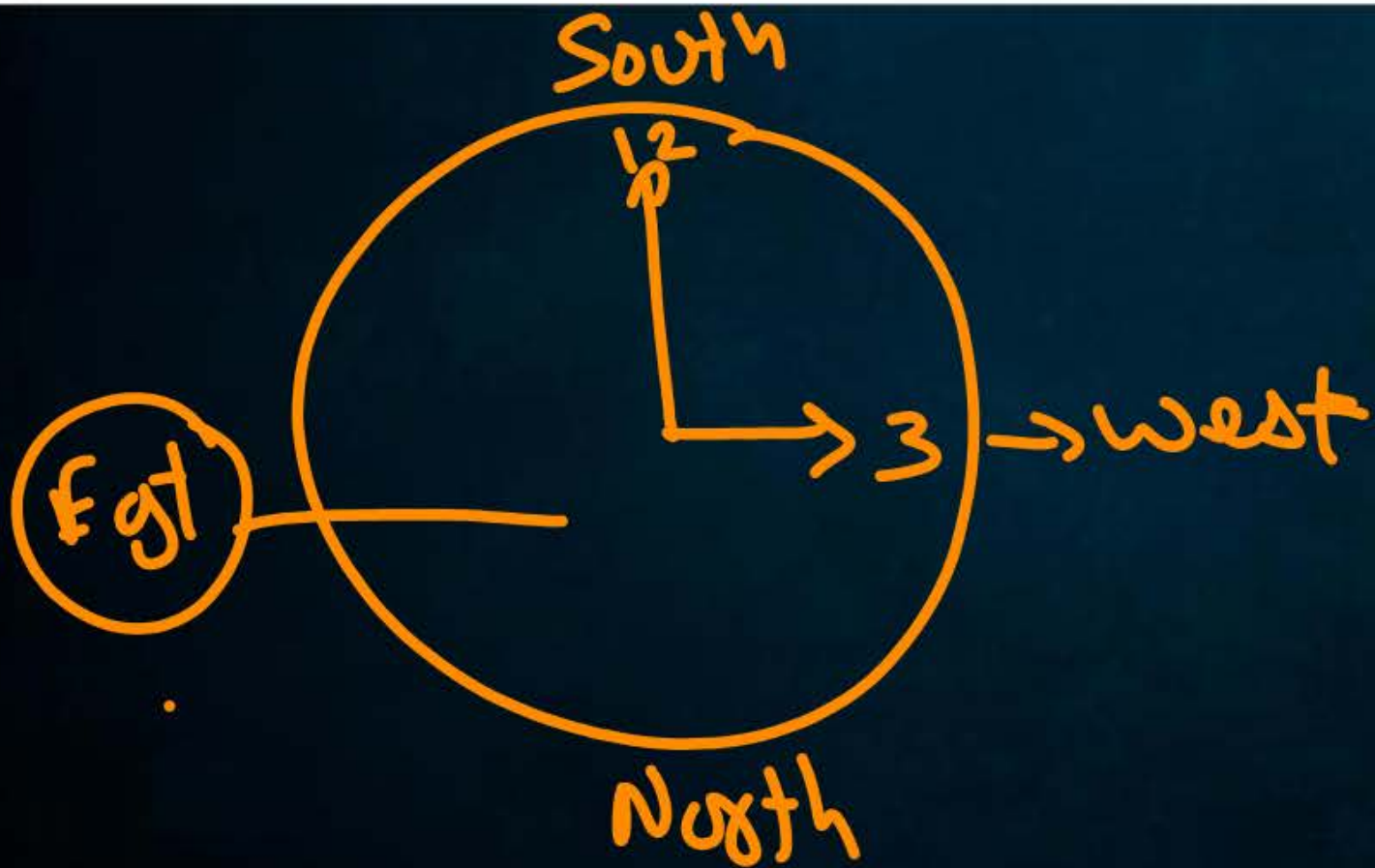
Daily in the morning the shadow of a Clock Tower installed on Railway Station falls on high rise Mall and in the evening the shadow of the same Mall falls on the Clock Tower installed on Railway Station exactly. So in which direction is Clock Tower to Mall?

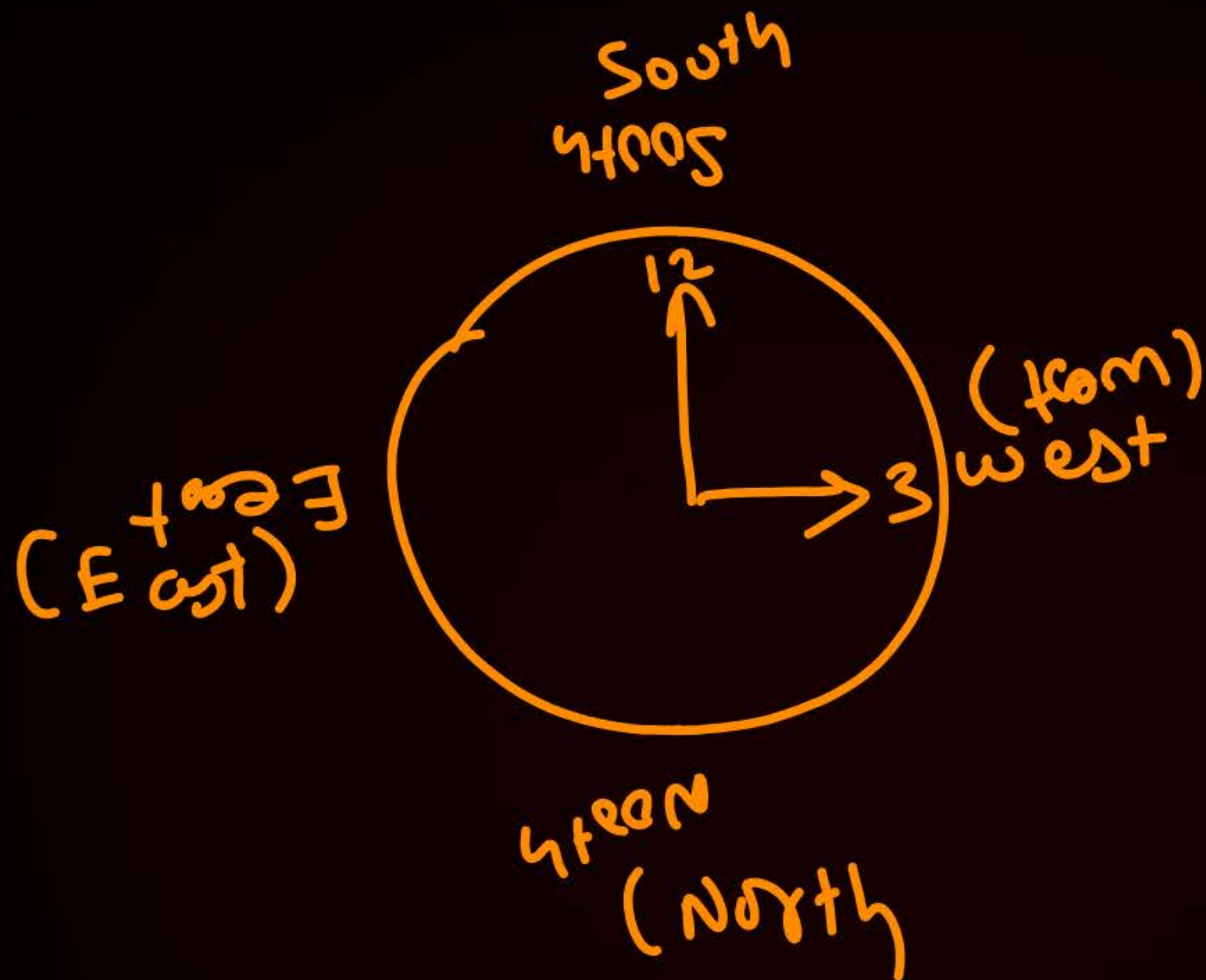
- (a) Eastern side
- (b) Western side
- (c) Northern Side
- (d) Southern side



The hour hand of a clock is in west direction when time is 3'O clock.
What is the direction of minutes hand when time is 6:45?

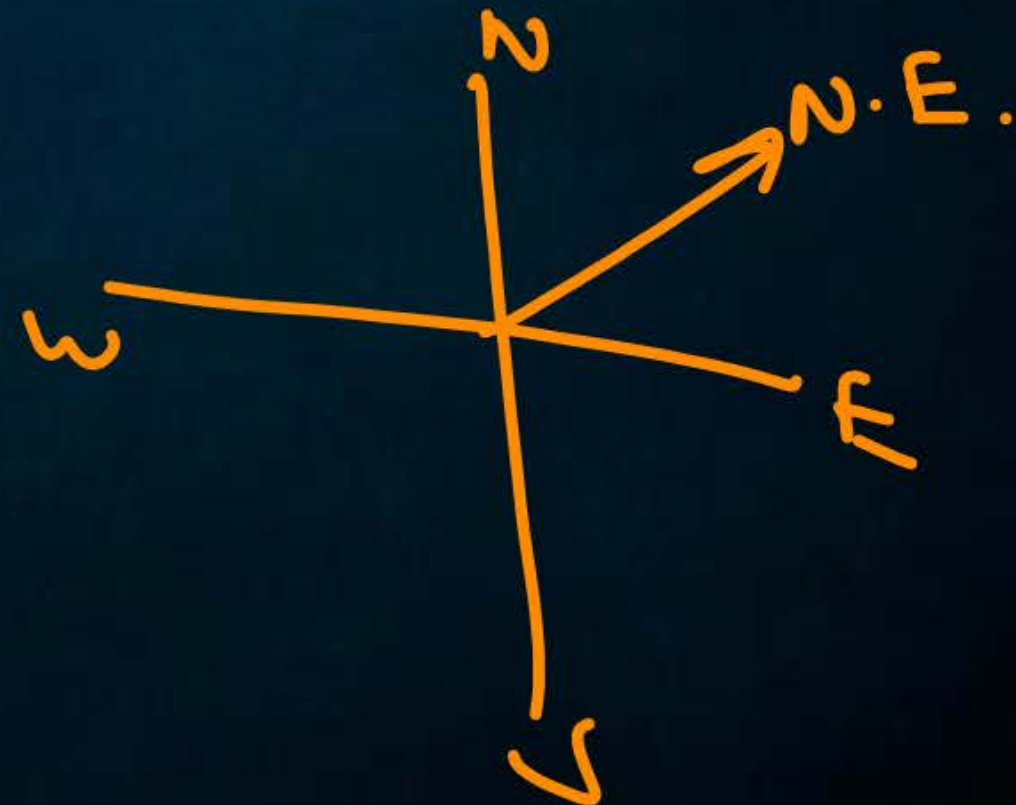
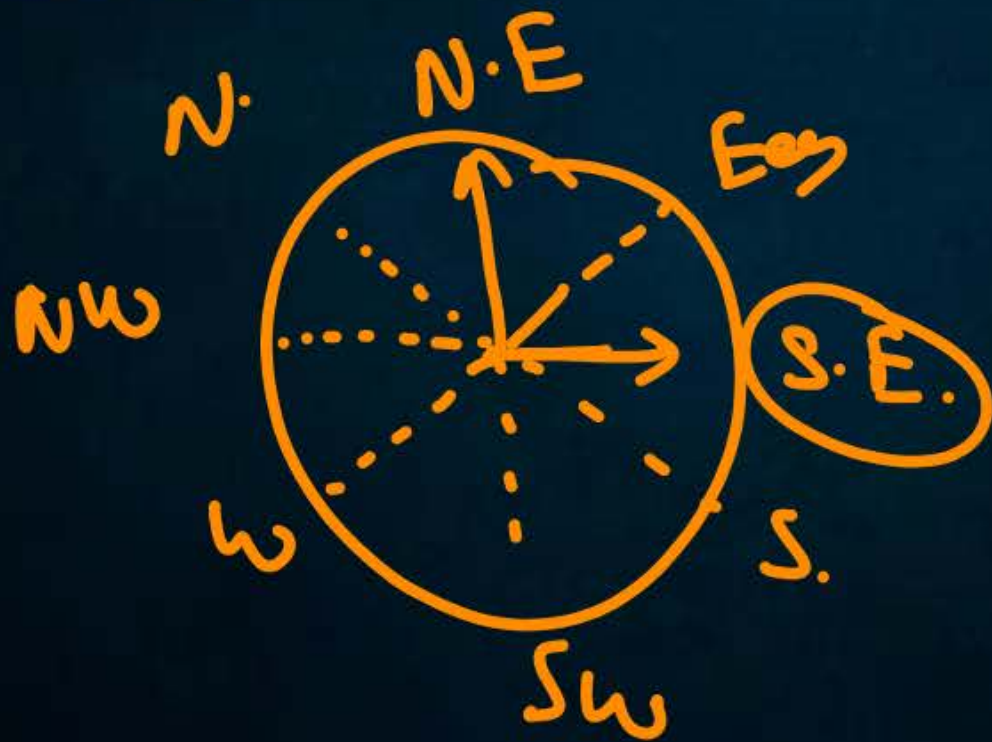
- (a) East (b) West
(c) North (d) South





It is 3'o clock in a watch. If the minute hand points towards the North-East then the hour hand will point towards the:

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



SEATING ARRANGEMENT

North

Left ↑ ↑ ↑ ↑ — Right

Right ↓ ↓ ↓ ↓ Left
South

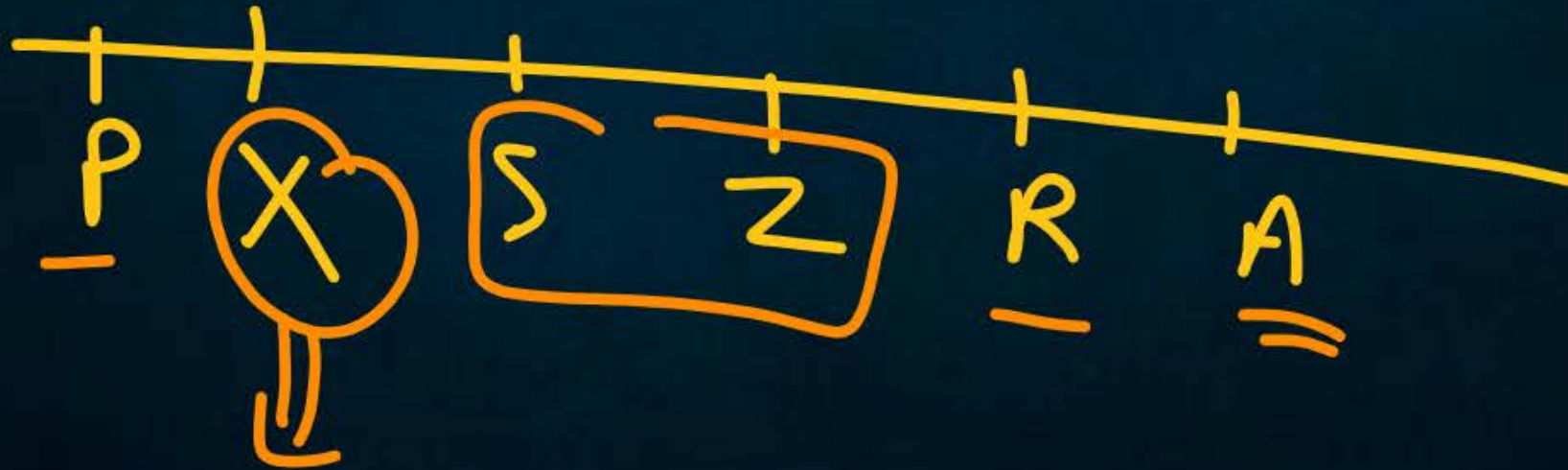
A, R, P, X, S and Z are sitting in a row S and Z are in the Centre. A and P are at the ends. R is sitting to the left of A. Who is to the right of P?

(a) A

(c) S

(b) X

(d) Z



Five senior citizens are living in a multi-storeyed building. Mr. Manu lives in a flat above Mr. Ashokan, Mr. Lokesh in a flat below Mr. Gaurav, Mr. Ashokan lives in a flat above Mr. Gaurav and Mr. Rakesh lives in a flat below Mr. Lokesh. Who lives in the topmost flat?

(a) Mr. Lokesh

(b) Mr. Gaurav

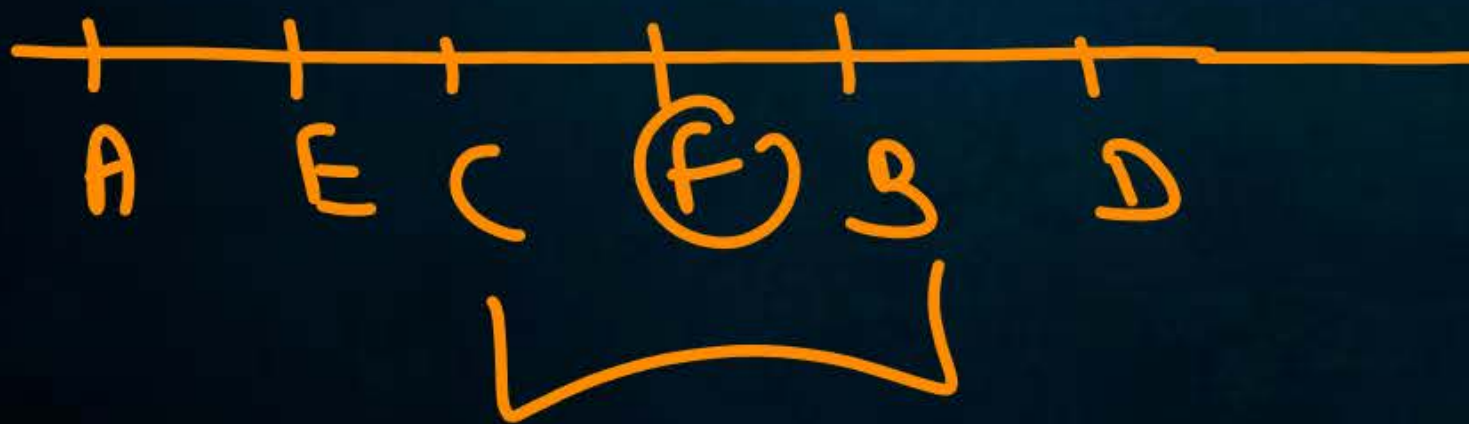
(c) Mr. Manu

(d) Mr. Rakesh



Six children A, B, C, D, E and F are standing in a row. B is between F and D. E is between A and C. A does not stand next to F or D. C does not stand next to D. F is between which of the following pairs of children?

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



Eight persons A, B, C, D, E, F, G and H are sitting in a line. E sits second right to D. H sits fourth left to D. C and F are immediate neighbours, but C is not immediate neighbour of A. G is not neighbour of E. Only two persons sit between A and E. The persons on left end and right end respectively are

☒ (a) G and E

(b) B and E

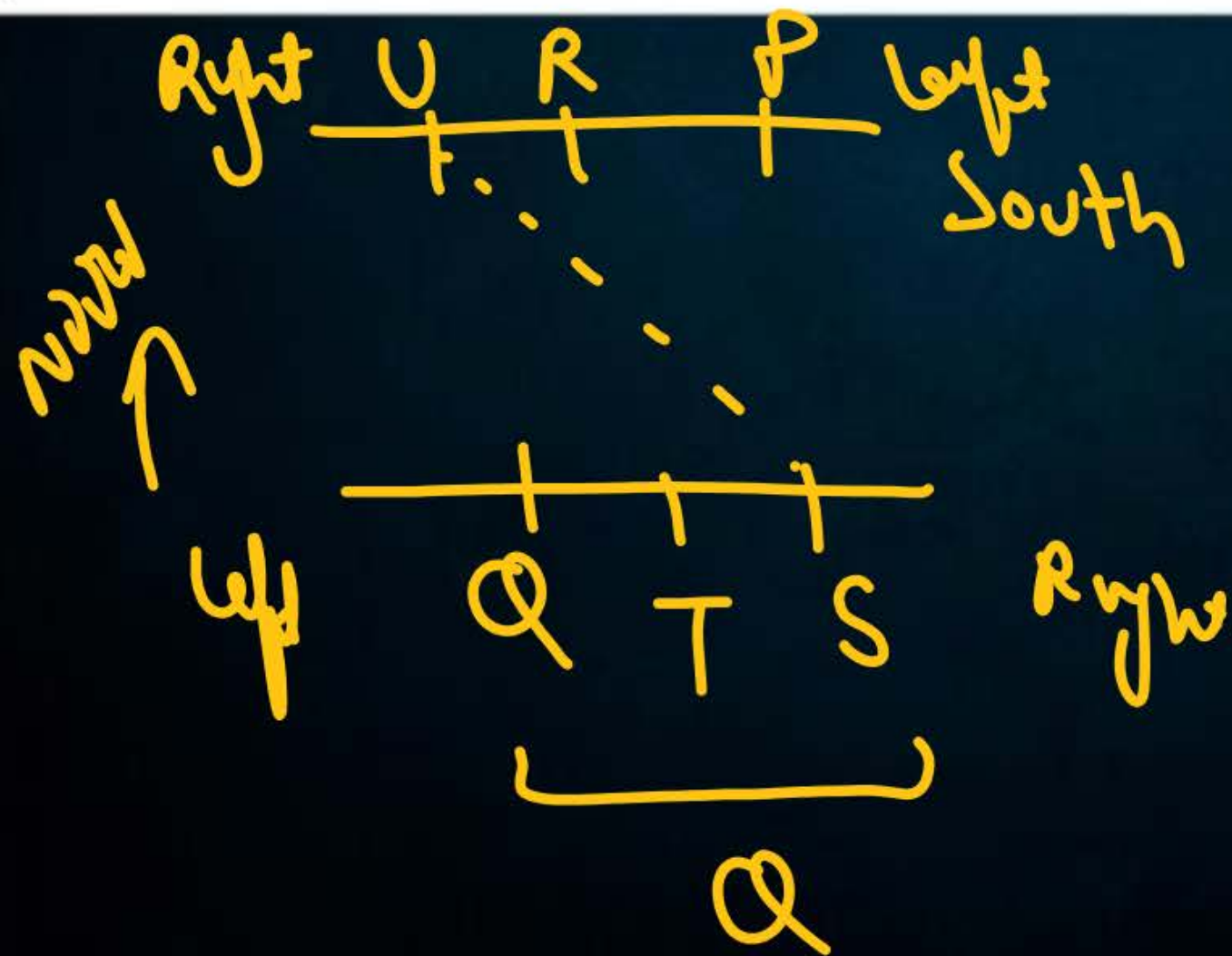
(c) H and E

(d) G and B



Six flats on a floor in two rows facing North and South are allotted to P, Q, R, S, T and U. Q gets a North facing flat and it is not next to S. S and U get diagonally opposite flat. R next to U gets a South facing flat and T gets a North facing flat. Whose flat is between Q and S?

- (a) T (b) U
(c) R (d) P



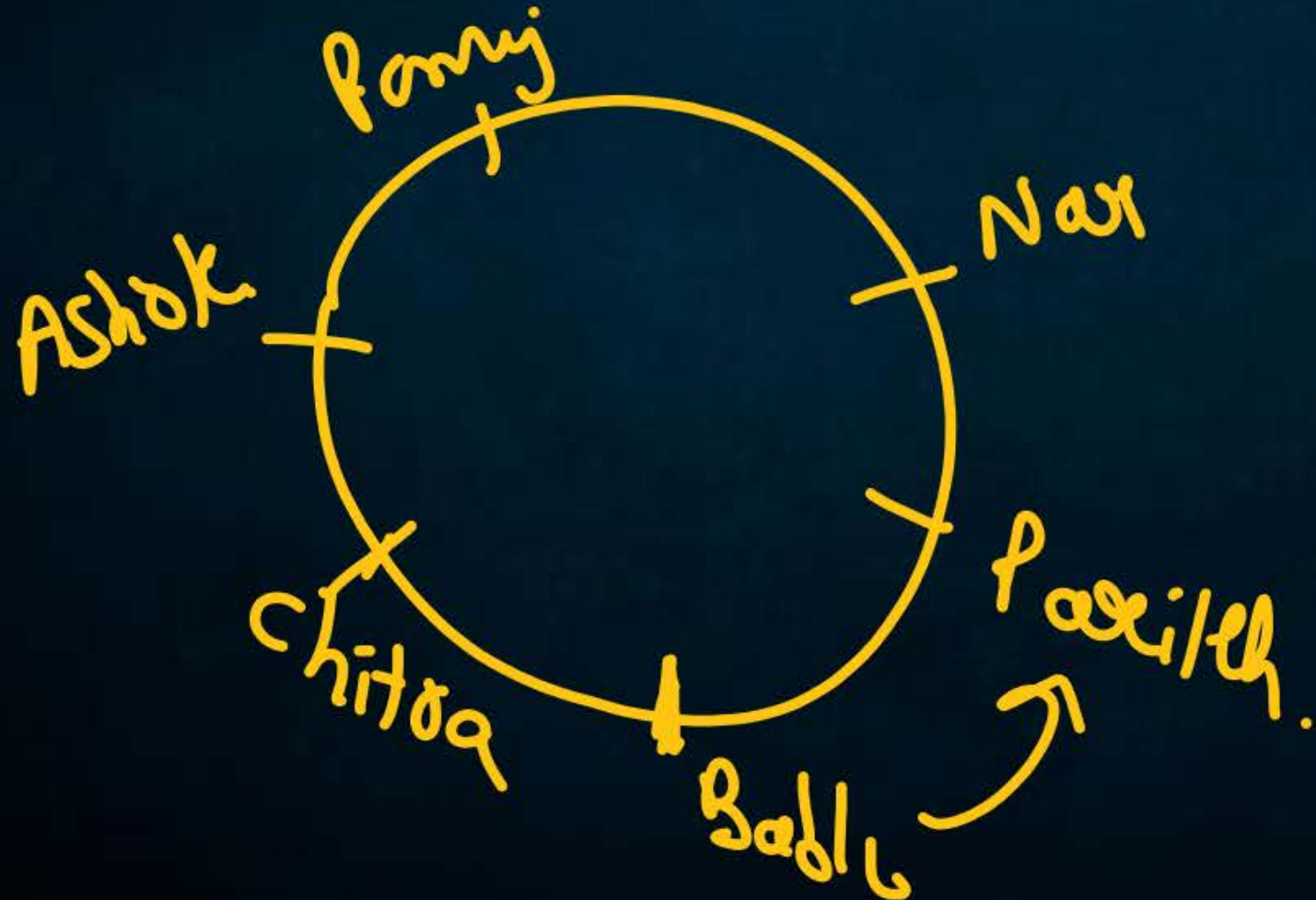
Six person are sitting in a circle facing the center. Parikh is between Bablu and Narender; Ashok is between Chitra and Pankaj. Chitra is on the immediate left of Bablu. Who is on the immediate right of Bablu?

(a) Parikh

(b) Pankaj

(c) Narender

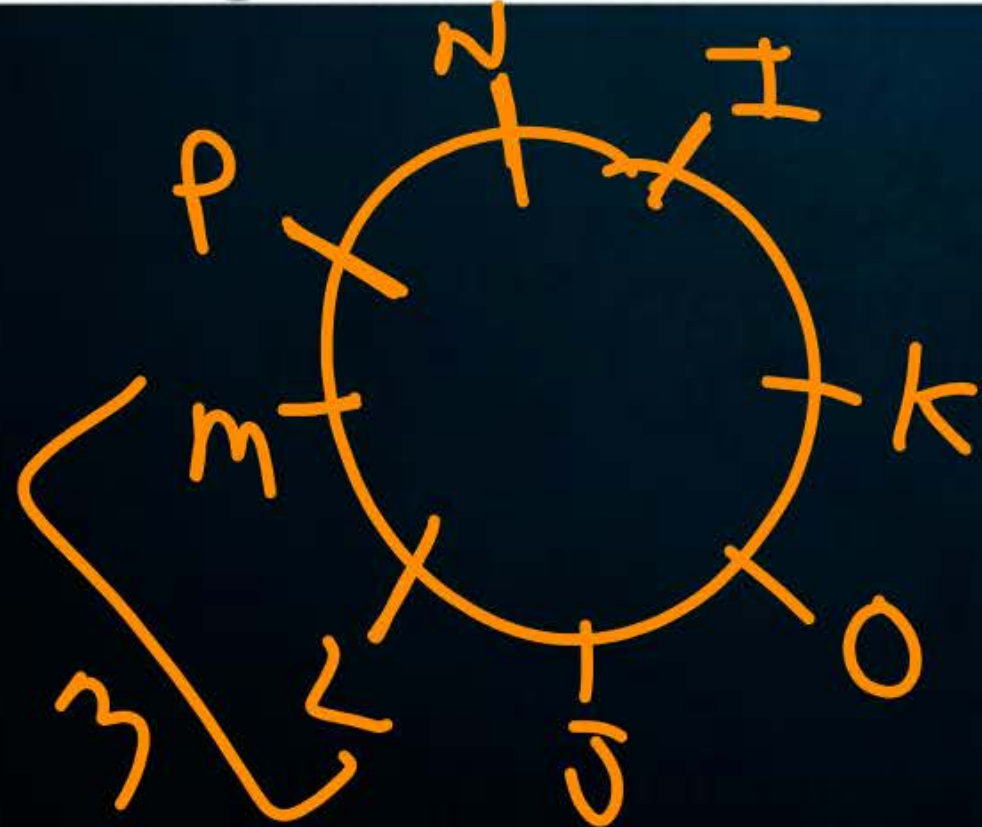
(d) Chitra



Eight friends I, J, K, L, M, N, O and P are sitting in a circle facing the centre. J is sitting between O and L; P is third to the left of J and second to the right of I; K is sitting between I and O; J & M are not sitting opposite to each other which of the following statements is not correct?

- (a) K is sitting third to the right of L
- (b) I is sitting between K and N
- (c) L and I are sitting opposite to each other
- ☒ (d) M is sitting between N and L.

Sol.



In a line, P is sitting 13th from left. Q is sitting 24th from the right and 3rd left from P. How many people are sitting in the line?

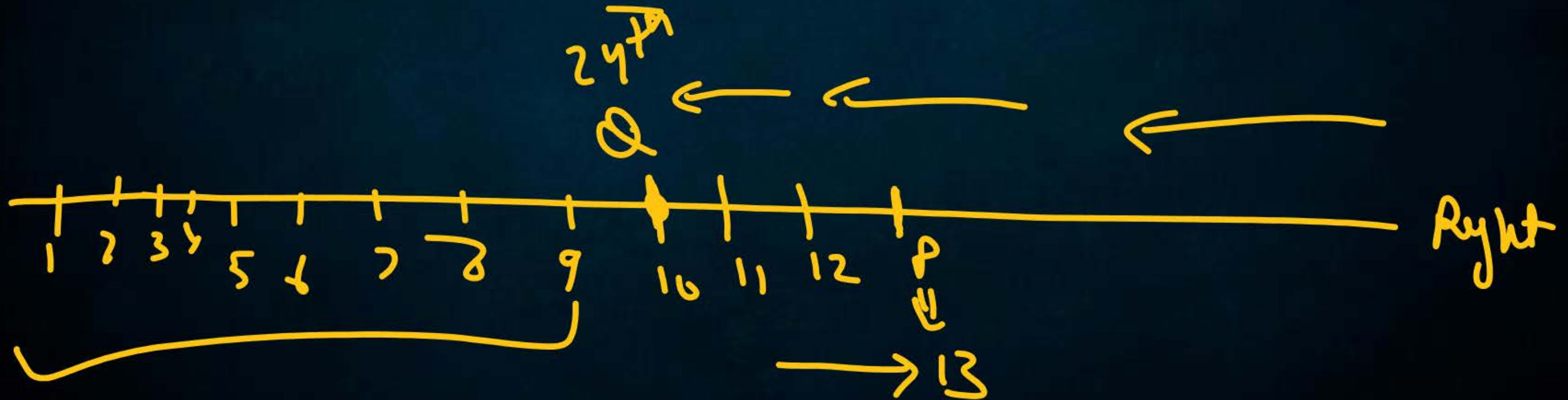
(a) 34

(b) 31

(c) 32

(d) 33

Sol.



$$24 + 9 = 33$$



Blood Relation

male $\Rightarrow (+)$
female $\Rightarrow (-)$

A is father of B

A(+)
↓
B

A is mother of B

A(-)
↓
B

A is son of B

B
↓
A(+)

A is Daughter of B

B
↓
A(-)

A is Husband of B

$A(+) = B(-)$

A is father of B
& B is mother of C

$A(+)$



$B(-)$



C

A is brother of B
& B is sister of A

$A(+) \longrightarrow B(-)$

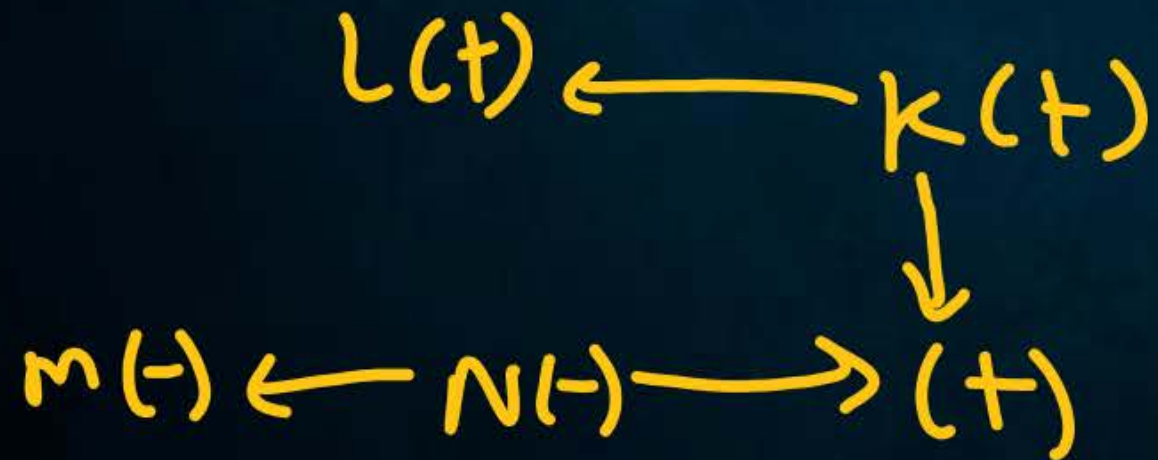
K and L are brothers. M and N are sisters, K's son is N's brother. How is L related to M?

(a) Father

(b) Brother

(c) Grandfather

~~(d)~~ Uncle



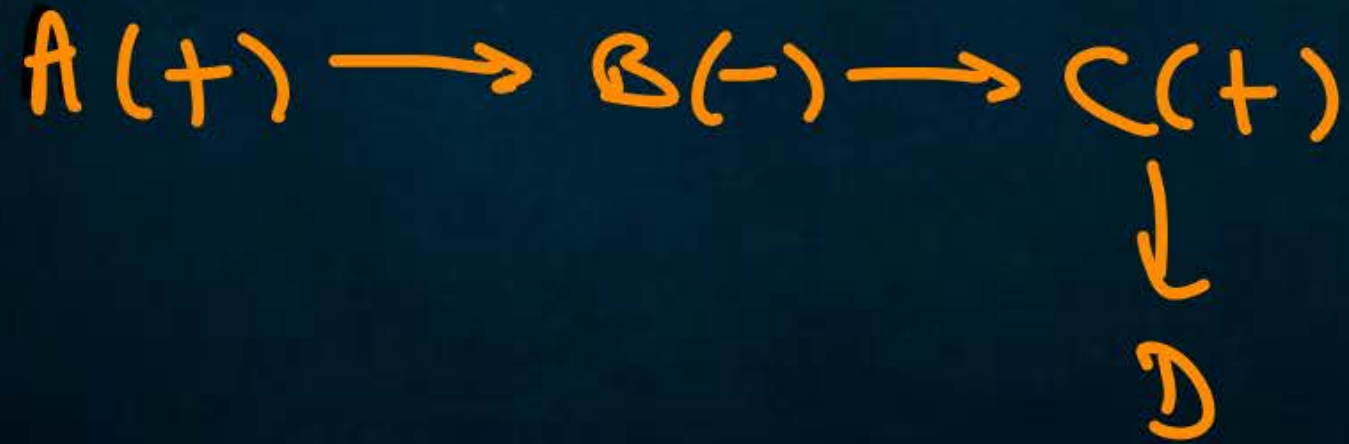
If A is the brother of B, B is the sister of C, and C is the father of D, how D is related to A ?

(a) Brother

(b) Sister

(c) Nephew

(d) Can't say



If $A + B$ means A is the brother of B , $A - B$ means A is the sister of B , and $A \times B$ means A is the father of B . Which of the following means that C is the son of M ?

(a) $M - N \times C + F$

(c) $N + M - F \times C$

(b) $F - C + N \times M$

(d) $M \times N - C + F$

$A + B = A$ is brother of B

$A - B = A$ is sister of B

$A \times B = A$ is father of B

C is son of M

$$\begin{array}{c} M \\ \downarrow \\ C(+) \end{array}$$

$$\underbrace{M \times N - C + F}$$

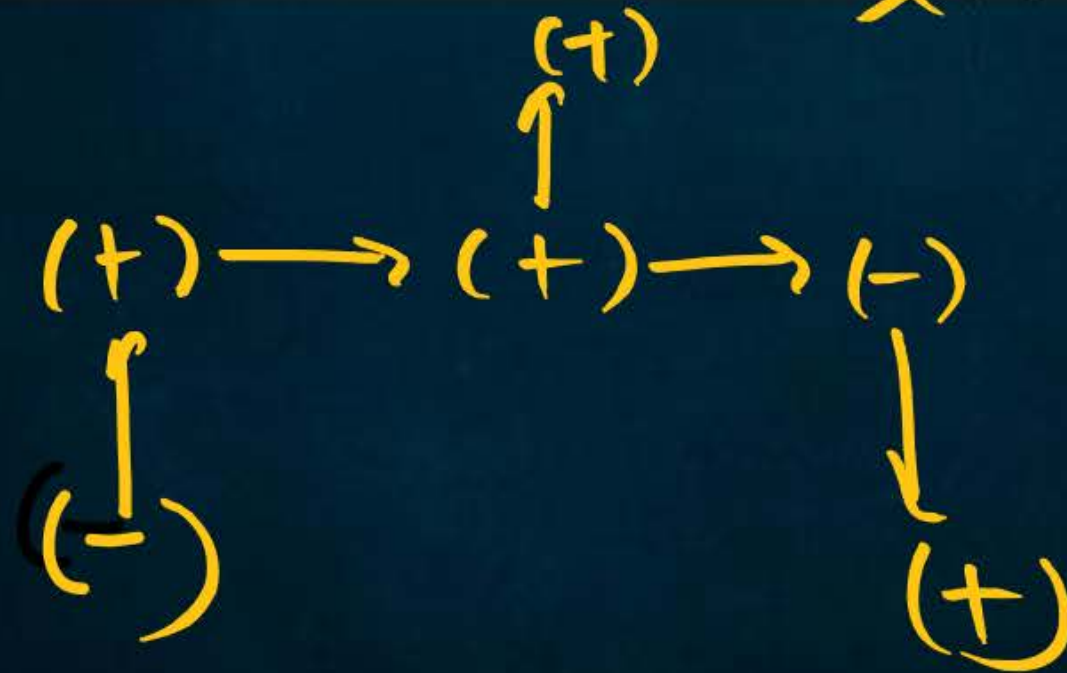
$$\begin{array}{c} M(+) \\ \downarrow \end{array}$$

$$N(-) \rightarrow C(+) \rightarrow F$$

Introducing a boy, a girl said, "He is the son of the daughter of the father of my uncle." How is the boy related to the girl ?

(a) Brother
(c) Uncle

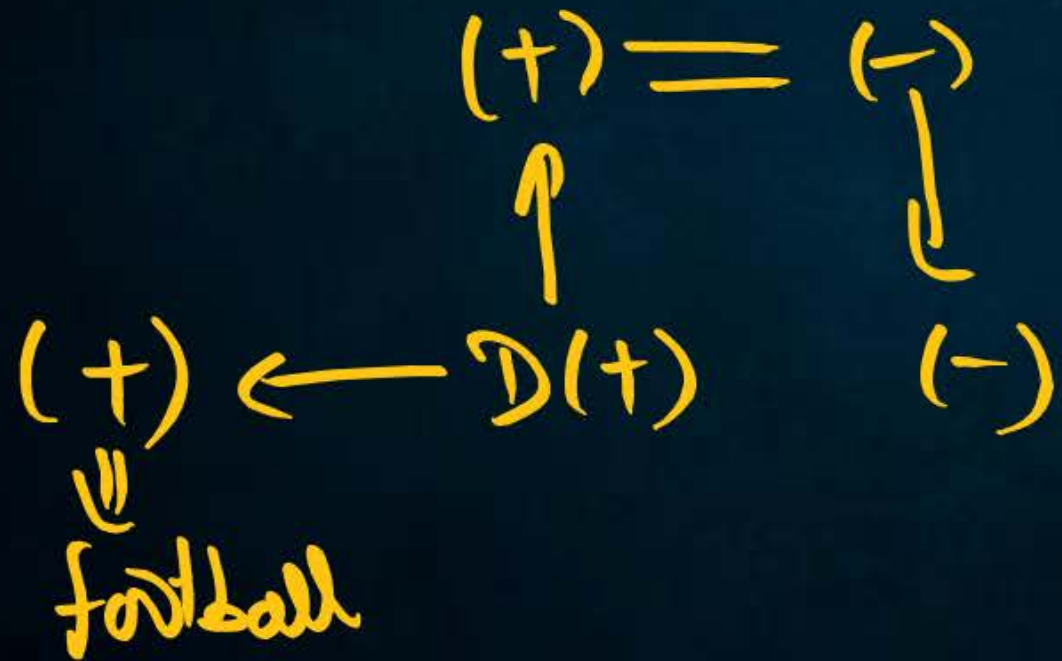
~~(b) Nephew~~
~~(d) Son-in-law~~



Deepak said to Nitin, "That boy playing with the football is the younger of the two brothers of the daughter of my father's wife", How is the boy playing football related to Deepak ?

- (a) Son
- (c) Cousin

- ☒ (b) Brother
- (d) Brother-in-law



Pointing a photograph X said to his friend Y, “she is the only daughter of the father of my mother”, How X is related to the person of photograph ?

(a) Daughter

☒ (b) Son

(c) Nephew

(d) Cannot be decided

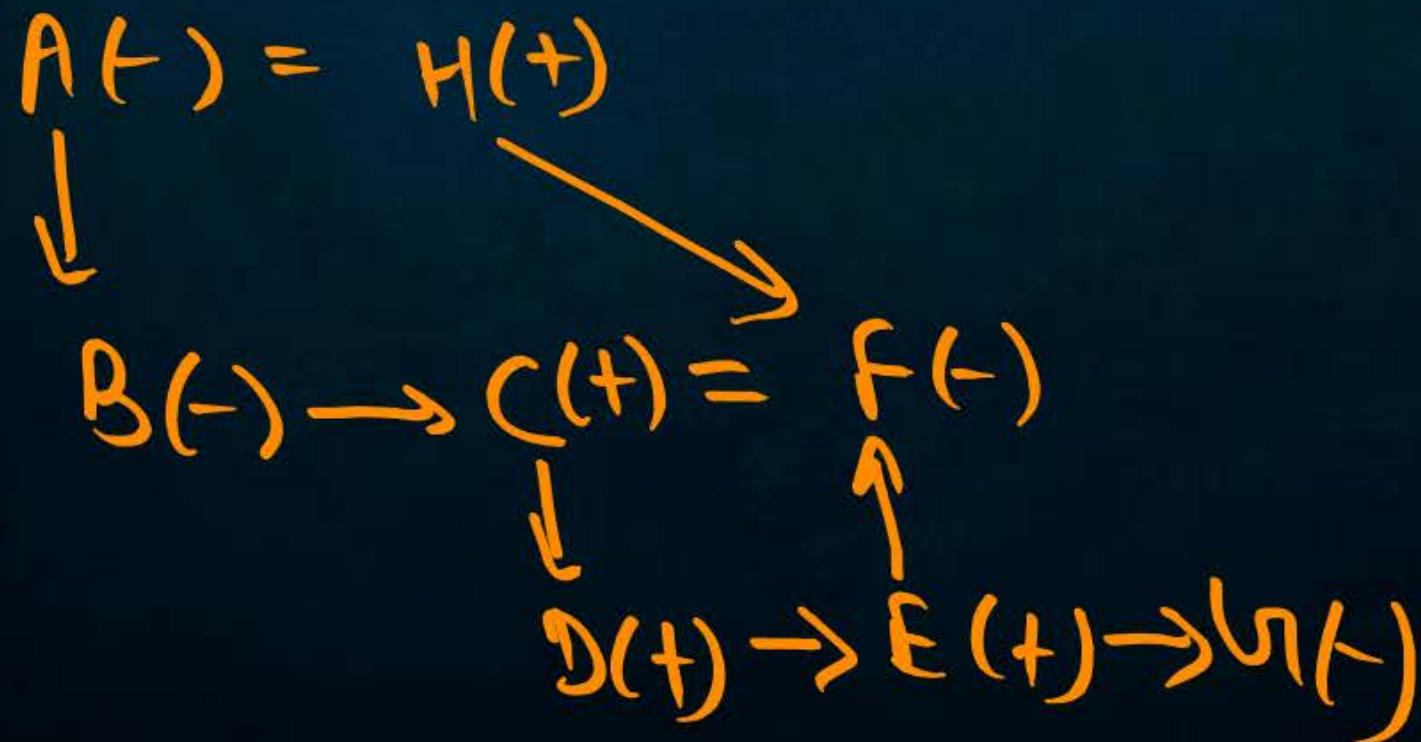


A is the mother of B. B is sister of C. D is son of C. E is brother of D. F is mother of E. G is grand daughter of A. H has only two children B and C.

How is F related to H?

- (a) Son-in-law
- (c) Father-in-law
- (e) Niece

- (b) Daughter-in-law
- (d) Grand daughter



A, B, C, D, E and F are members of a family. B is the son of A but A is not the mother of B, A and C are married couple. F is the brother of A. D is the sister of B, E is the son of C.

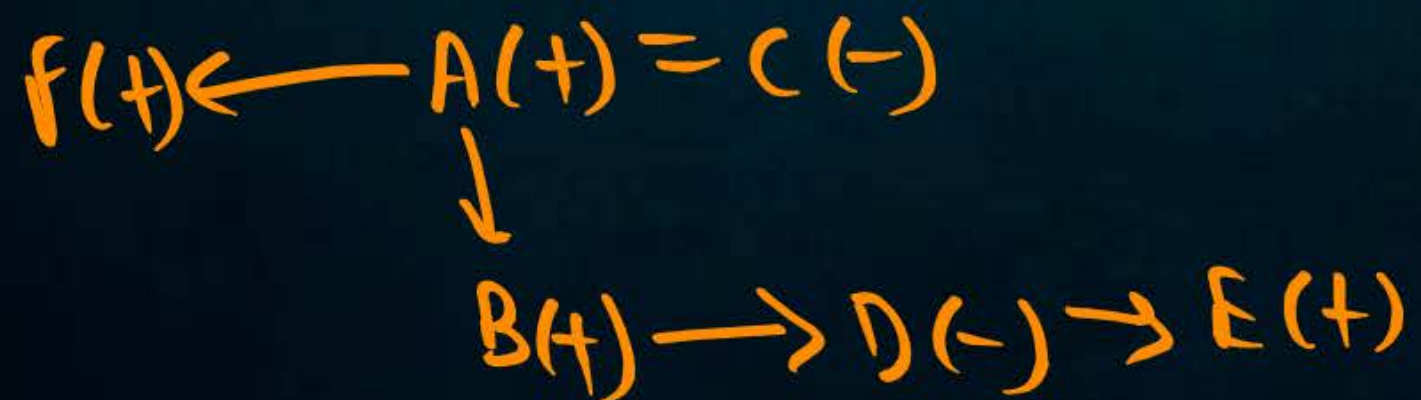
How many male members are there in the family.

(a) 1

(b) 2

(c) 3

☒ (d) 4





THANK YOU

