

# GATE-2023 CRASH COURSE

GENERAL APTITUDE

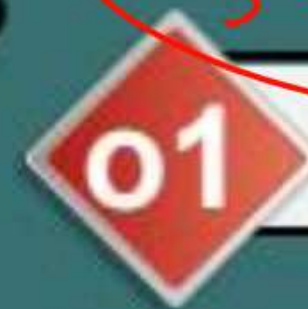
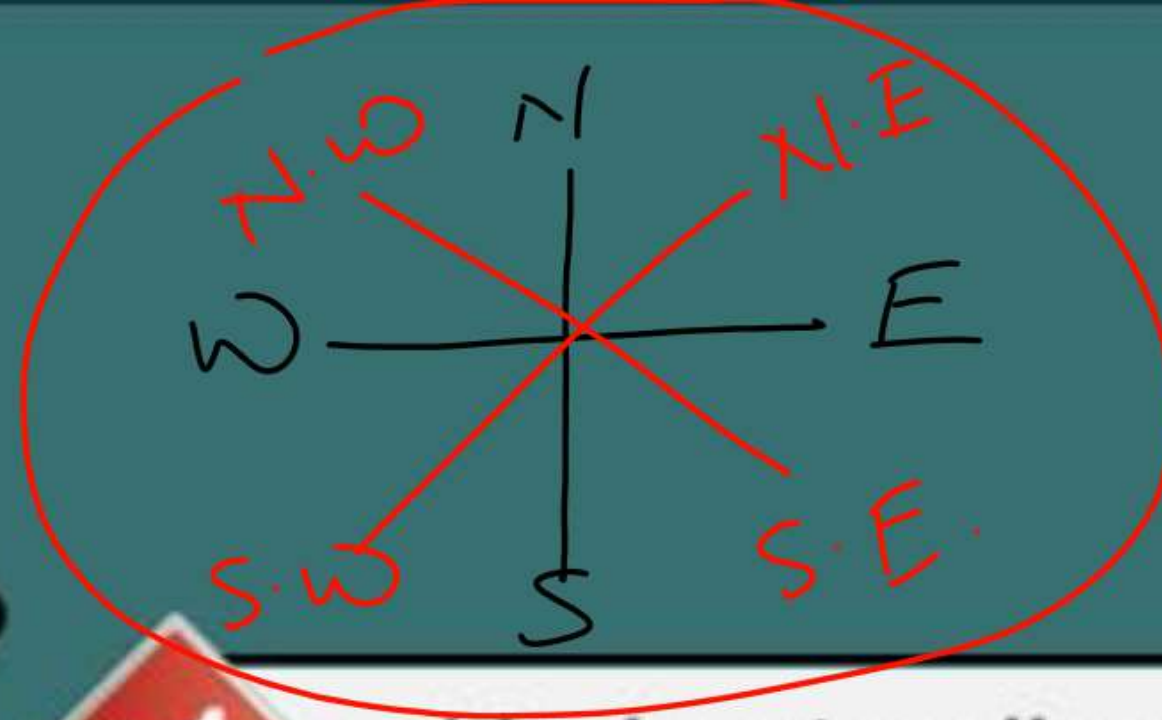
## DIRECTIONS

Lecture No.18

AMULYA RATAN SIR







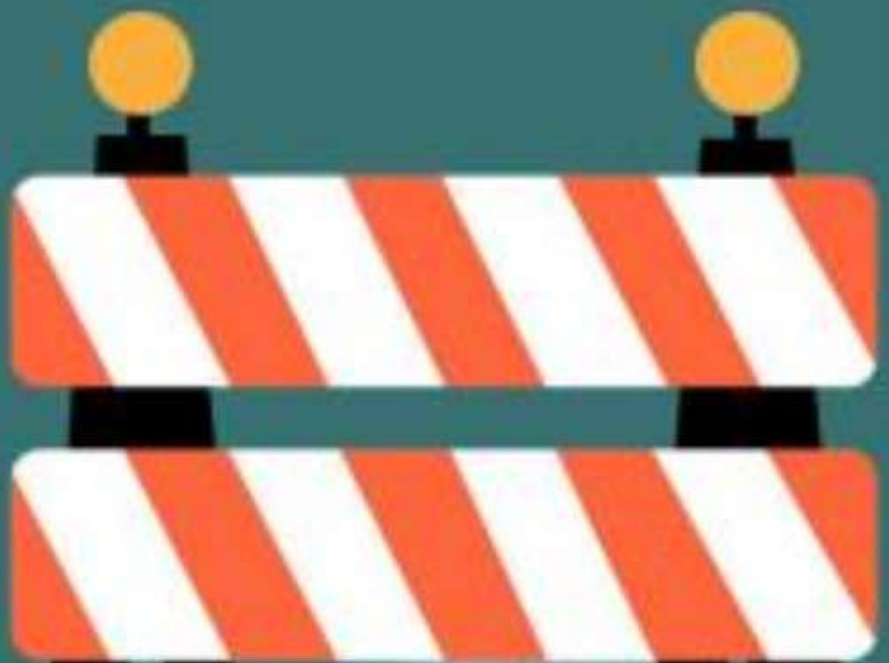
Understanding NEWS



Without Diagram Solutions



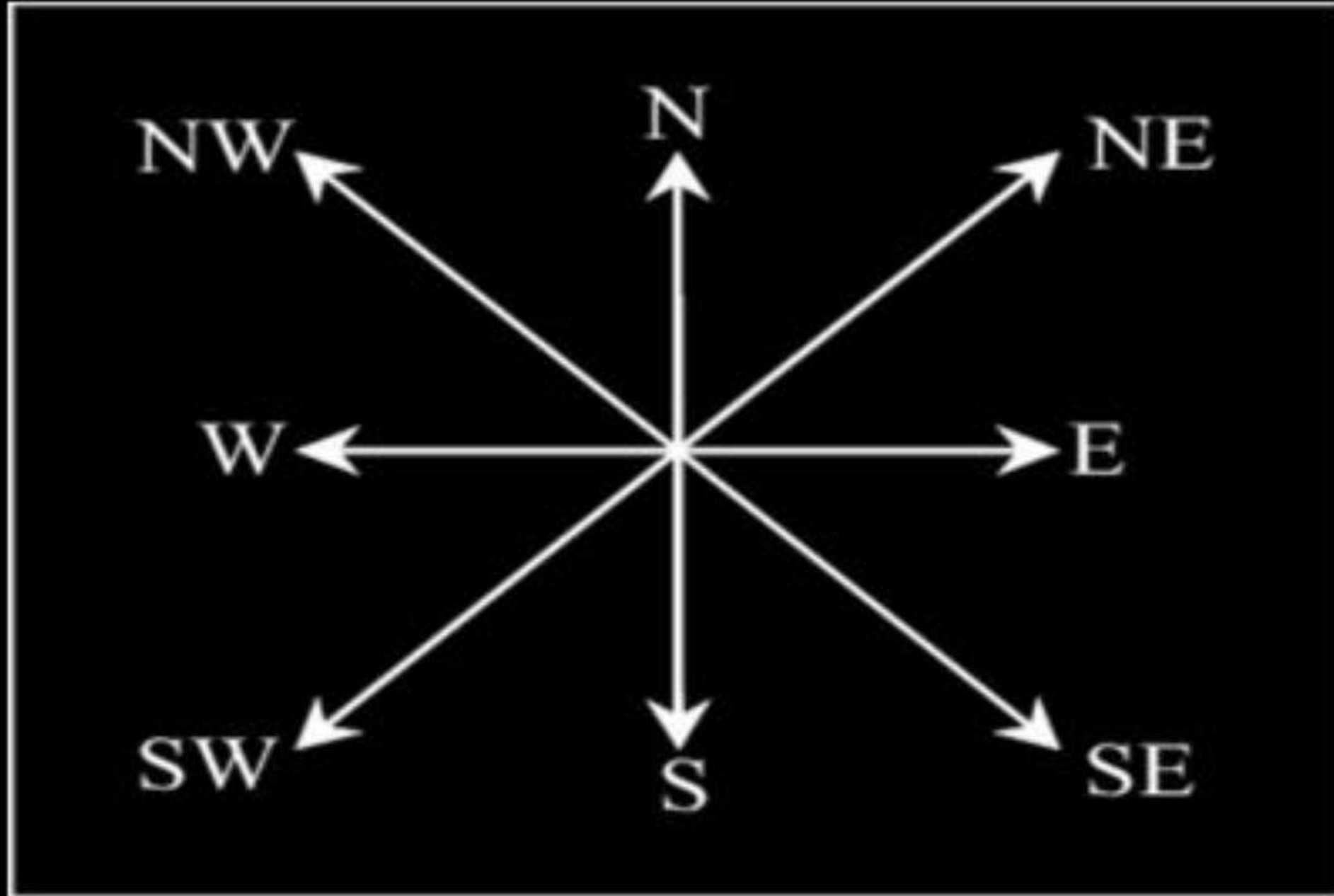
Sorting Questions

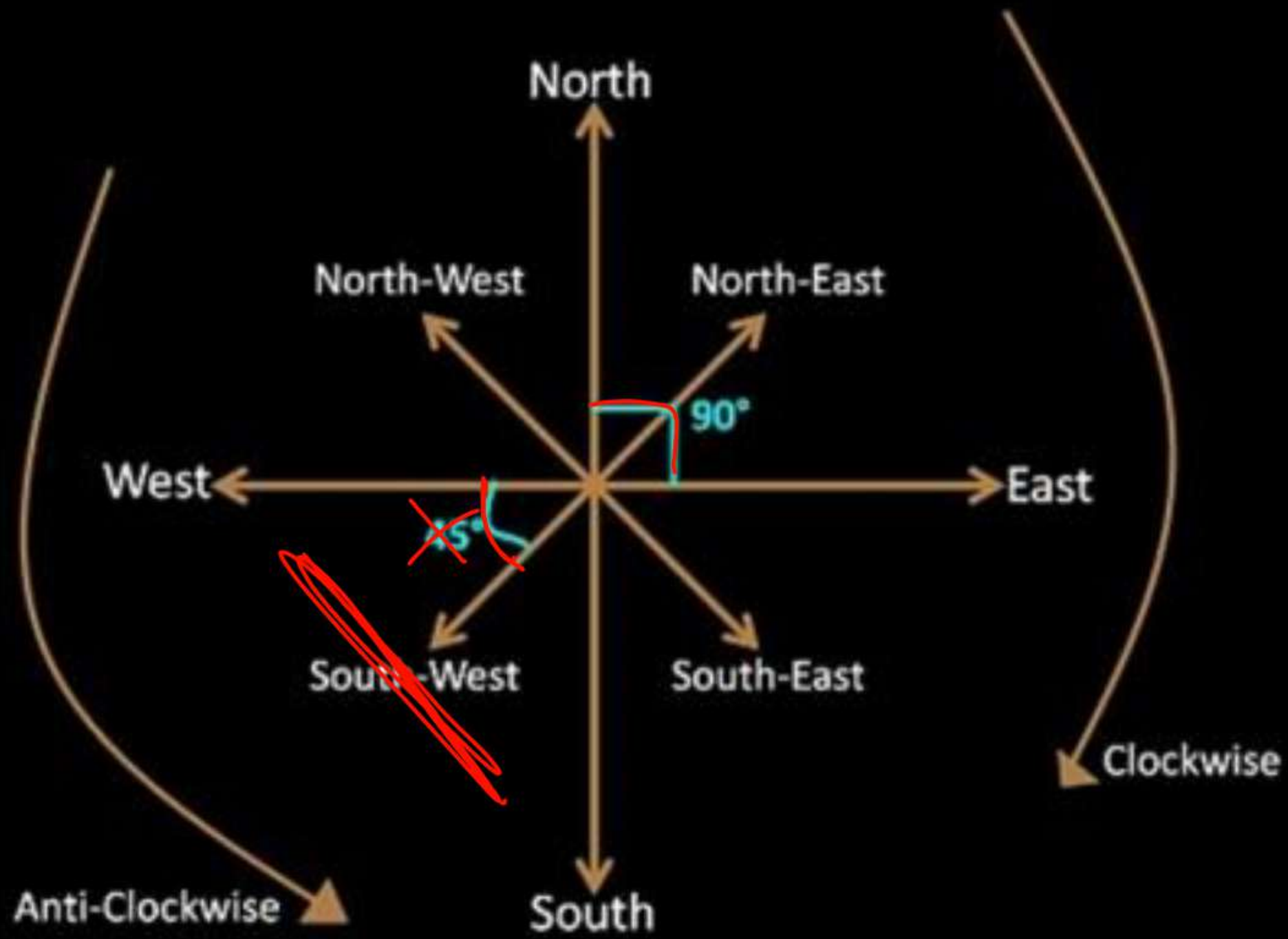


# DIRECTIONS









Q.

Facing towards south Suresh walked 50 mts. He then turned to his right and walked 30 mts. He again turned right and walked 50 mts. How for was he from his original position and towards which direction?

~~S 50 W 30 N 50~~

$$\sqrt{H^2 + V^2}$$

$$= \sqrt{30^2 + 0^2}$$

$$= \sqrt{30^2} = 30$$

West  
North  
latest

① Horizontal Dist

② Vertical Dist.

③ Facing at last

④ The person as compared origin

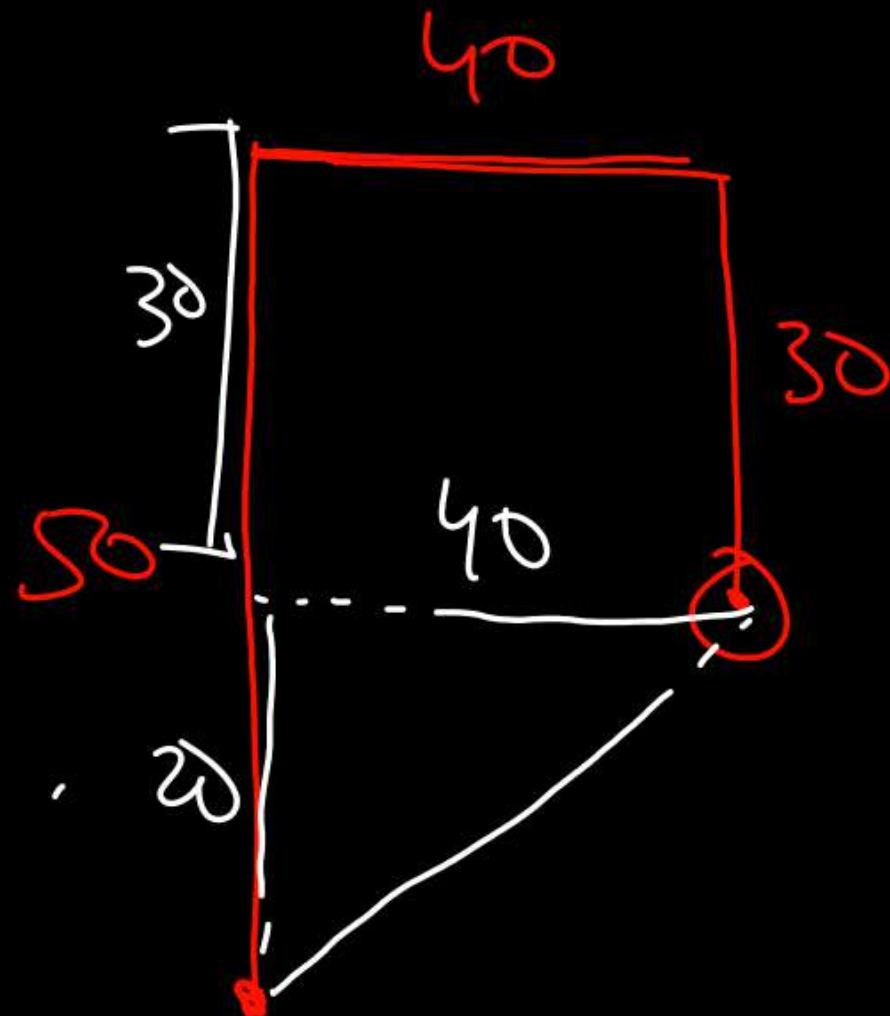
⑤ How far is the person from





Q.

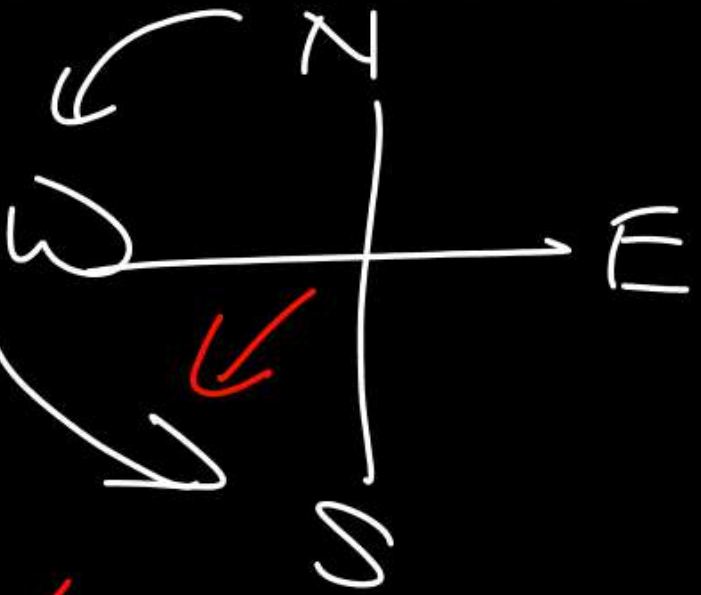
Maahesh started walking towards North. After walking 30 metres, he turned towards left and walked 40 metres. He then turned left and walked 50 metres. How far is he from his original position?



$$h^2 = 40^2 + 20^2$$

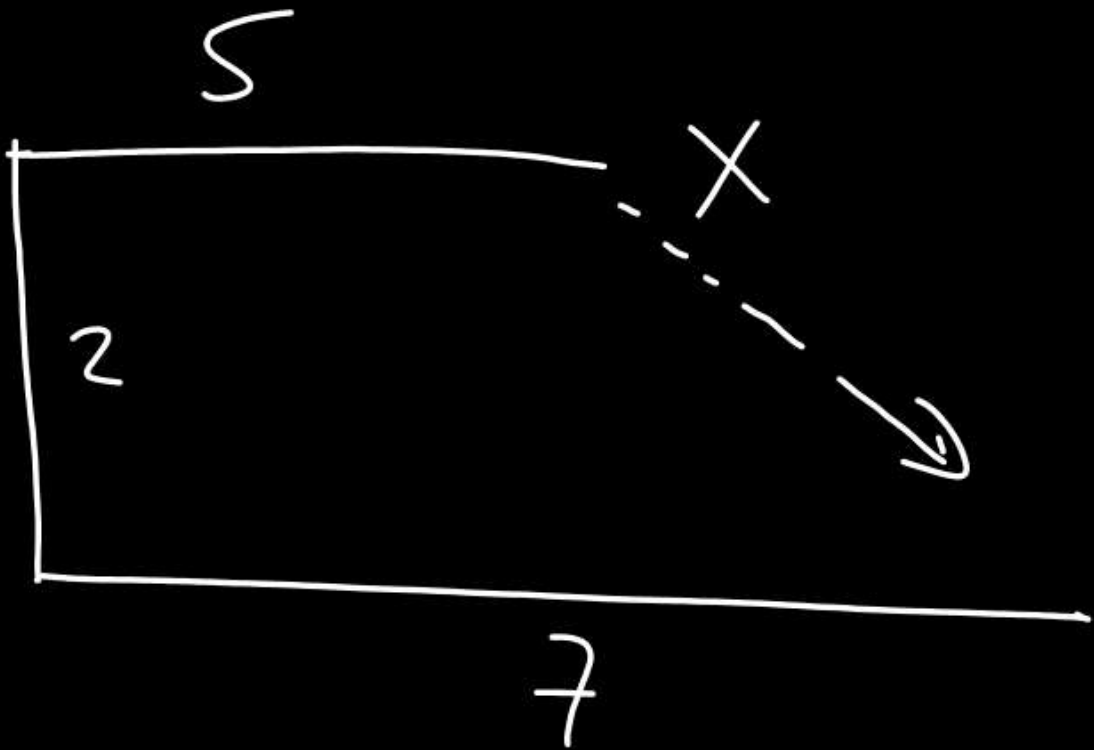
$$h = \sqrt{40^2 + 20^2}$$

$$h = \sqrt{2000} = 20\sqrt{5}$$



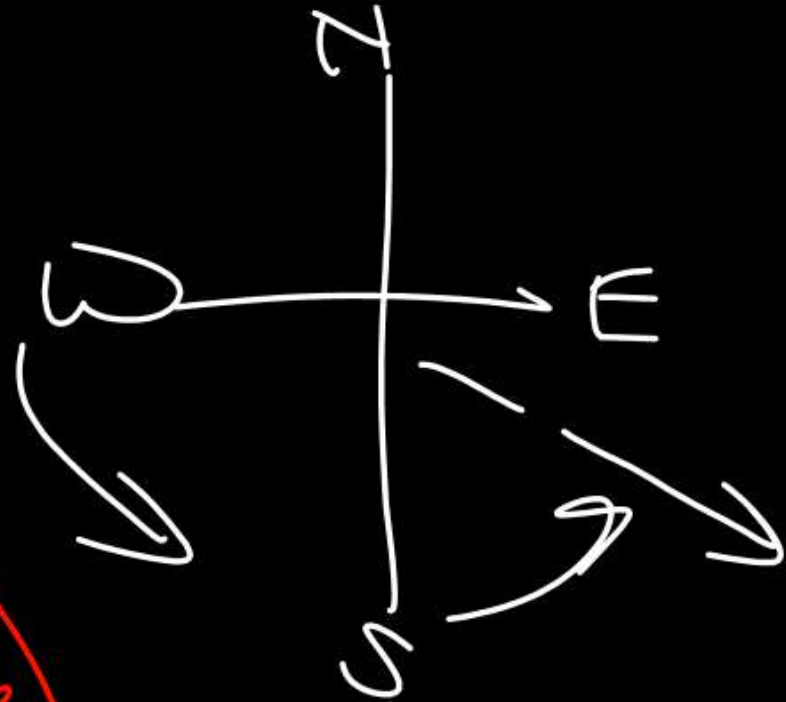
Q.

Mohit started from point X and walked straight 5 km West, then turned left and walked straight 2 km and again turned left and walked straight 7 km. In which direction is he from the point X?



S.E.

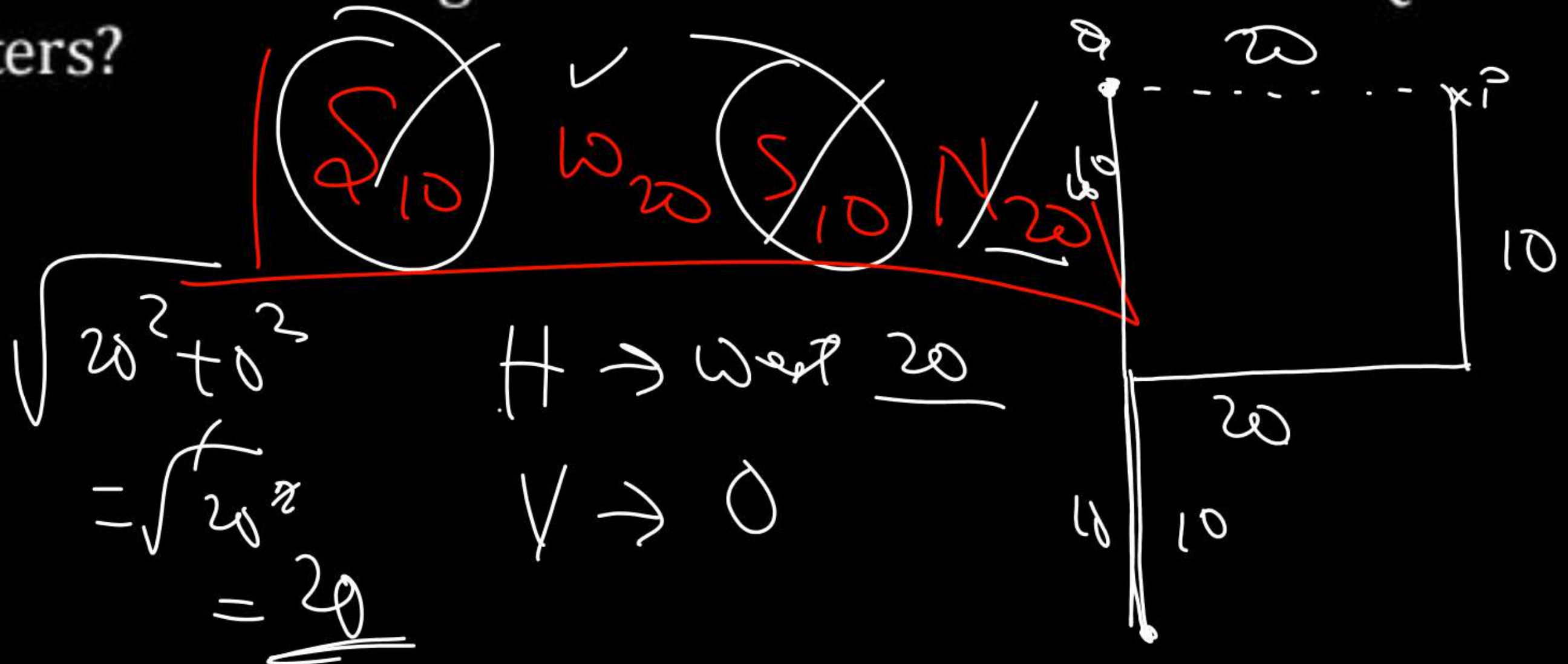
W 5 - S 2 - E 7  
H → 2 East  
X - 2 South





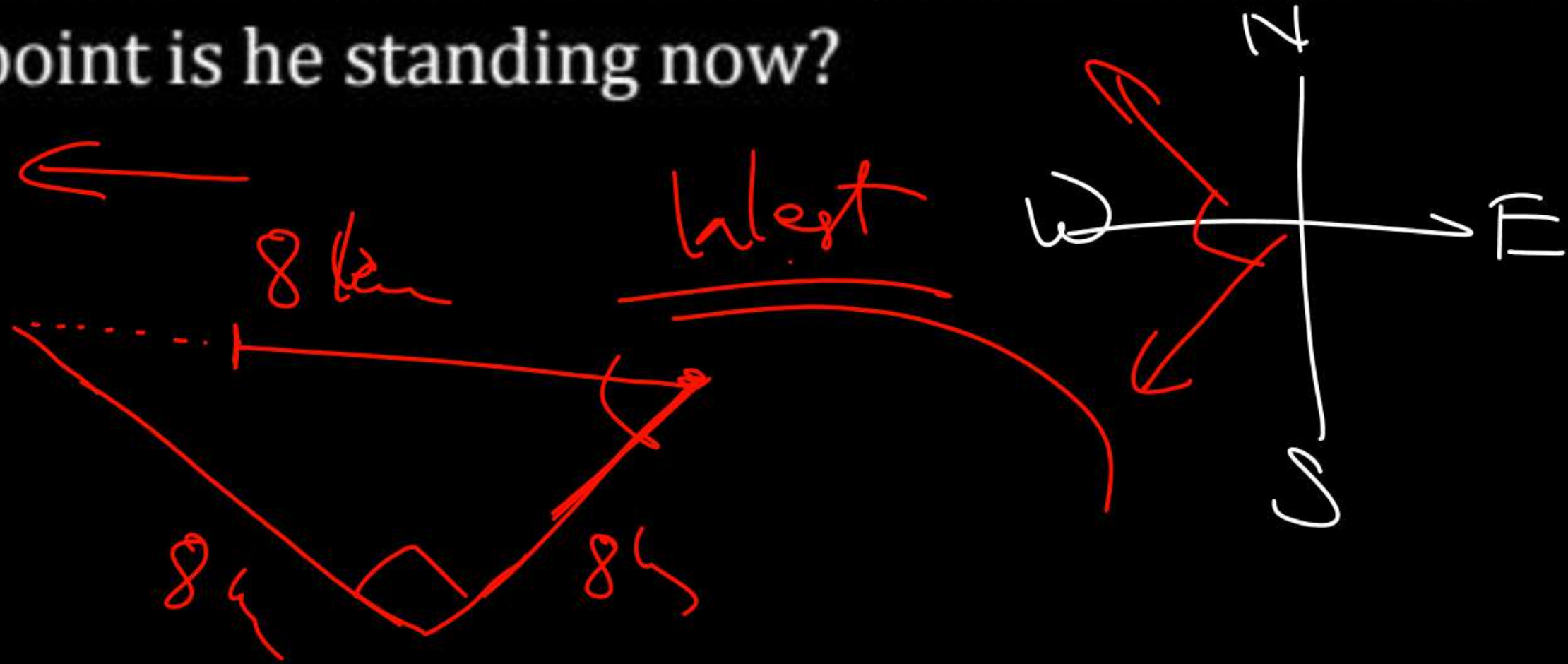
Q.

A is standing at P. He walks 10 meters towards the south; then he walks 20 meters towards the west; then he walks 10 meters towards the south; then he walks 20 meters towards the North and reaches Q. What is the straight distance between P and Q in meters?



Q.

Sumit walks 8 km east, turns South-West and walks another 8km. He again takes a turn towards North-West and walks another 8km. In which direction from starting point is he standing now?



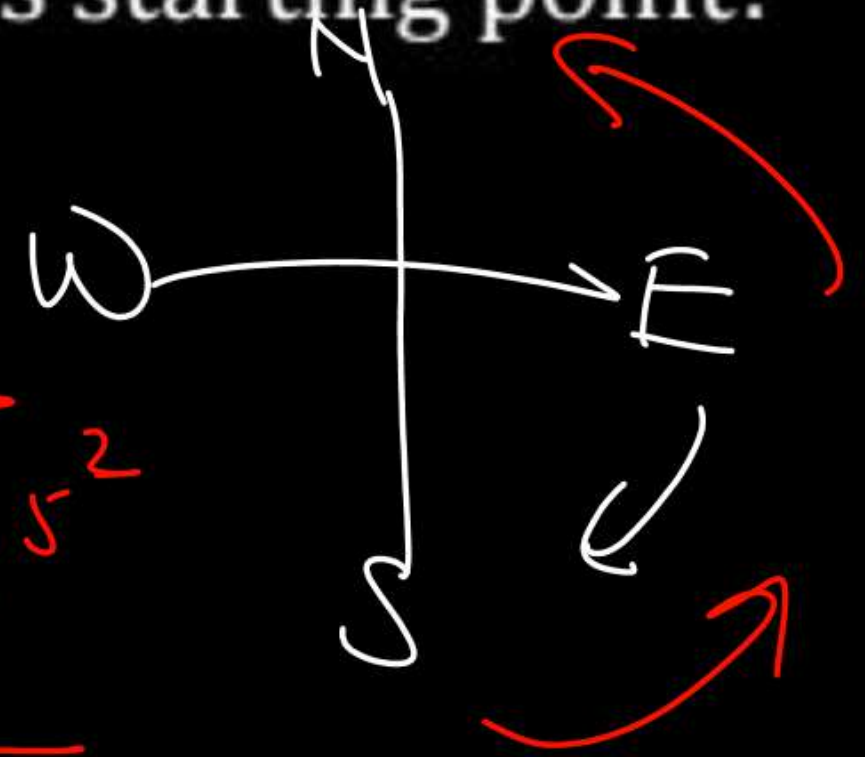


# Brainstorming 1

A walks 10 metres towards East and then 10 metres to his right, then every time turning to his left, he walks 5.15 and 15 metres respectively. How far is he now from his starting point?

$$\sqrt{254}$$

$E_{10}$   $S_{10}$   $E_{5.15}$   $N_{15}$



15.9

H  $\Rightarrow$  15.15 East

V  $\Rightarrow$  5 North

$$\sqrt{(15 \cdot 15)^2 + 5^2}$$

$$= \sqrt{229 + 25}$$



# Brainstorming 2

A man is facing North-West. He turns  $90^\circ$  in the clock wise direction, then  $135^\circ$  in the anticlockwise direction which direction is he facing now?

West

Anti  $45^\circ$





# Brainstorming 3

One day, Ravi left home and cycled 10 km Southwards, 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?

15

~~S~~ 10 ~~E~~ 5 ~~N~~ 10 ~~W~~ 10

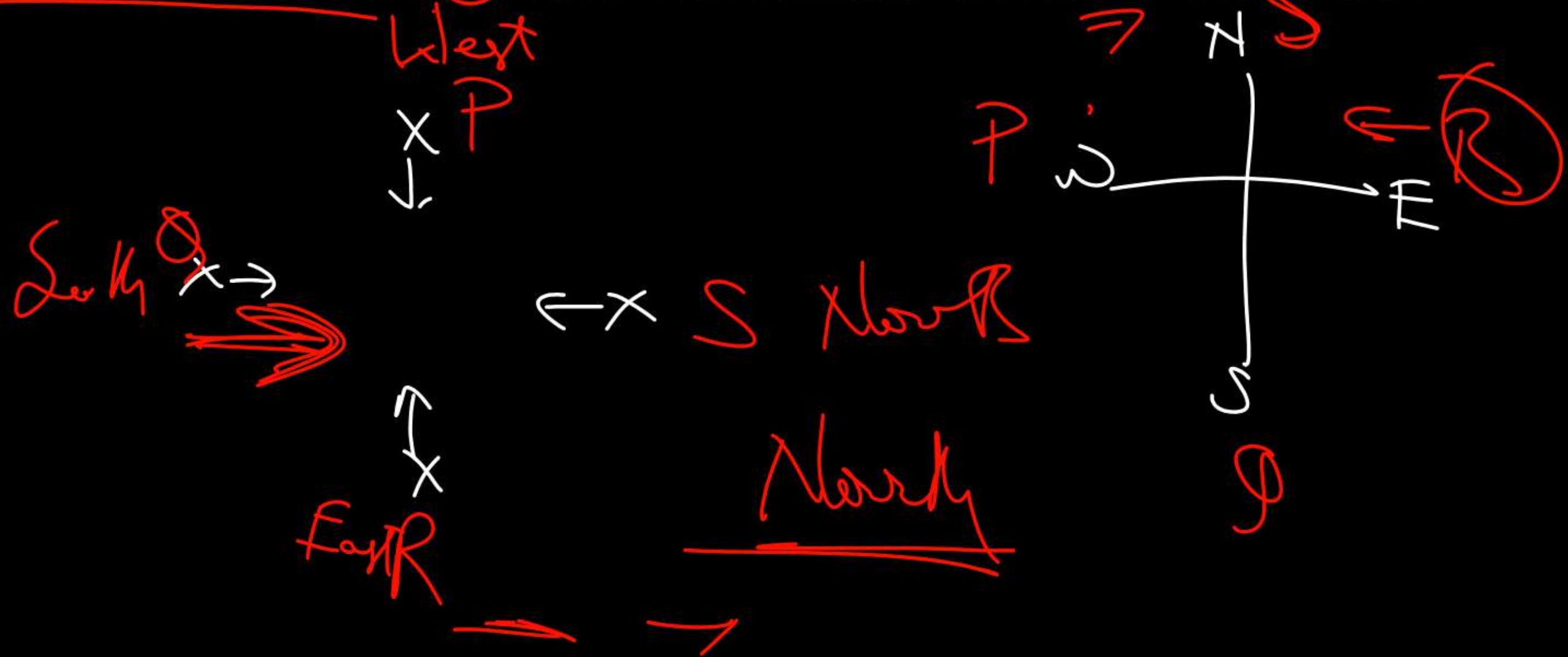


V - 0  
H → 15 west



# Brainstorming 4

P, Q, R and S are playing a game of carom. P, R and S, Q are partners. S is to the right of R, who is facing West. Then, Q is facing?





# Brainstorming 5



One evening before sunset, two friends Sumit and Mohit were talking to each other face to face. If Mohit's shadow was exactly to his right side, which directions was Sumit facing?



Sumit



South

Mohit

