

Directions (Q 1 -3): Eight persons M through T are standing in such a way that O is 20 m apart from N towards West, N is 30 m South with respect to M. M is 40 m towards West with respect to Q. P is 50 m towards South with respect to Q. R is 15 m apart from S towards North. T is 20 m towards East with respect to S. R is 40 m towards West with respect to P.

1). In which direction is Q standing with respect to R?

- a) North-West
- b) North
- c) North-East
- d) Cannot be determined
- e) None of these

2). If one more person U is standing towards South-West with respect to P, then in which direction is T, standing with respect to U?

- a) South-West
- b) North-East
- c) North-West
- d) Cannot be determined
- e) None of these

3). What is the direction of O with respect to S?

- a) North-West
- b) North
- c) West
- d) Cannot be determined
- e) None of these

4). A boy is looking for his mother. He went 90 metres in the east before turning to his right. He went 20 metres before turning to his right again to look for his mother at his uncle's place 30 metres from this point. His mother was not there. From here he went 100 metres to his north before meeting his mother in a street. How far did the son meet his mother from the starting point?

- a) 110 m
- b) 100 m
- c) 90 m
- d) 240 m
- e) None of these

5). Kashmira facing towards south moved straight 8 km and from there turned to her right 90° and travelled 7 km. Then she took a 45° turn to her left and travelled 4 km. Where would she be now with respect to the starting point?

- a) South
- b) South-west
- c) North-east
- d) South-east
- e) North-west

Directions Q. (6-8): Read the following information carefully and answer the questions given below it:

- i. M?N means N is to the right of M at a distance of two metre.
- ii. M*N means N is to the North of M at a distance of two metre.
- iii. M+N means N is to the left of M at a distance of two metre.
- iv. M%N means N is to the South of M at a distance of two metre.
- v. In each of the following questions all persons face North.

6). If P%Q+R*S then S is in which direction with respect to P?

- a) South-east
- b) East
- c) North

- d) West
- e) None of these

7). If $X \propto R \propto Y \propto Z$ then Z is in which direction with respect to R?

- a) North
- b) West
- c) South-east
- d) South-west
- e) None of these

8). If $T \propto U + V \propto W$, then V is in which direction with respect to T?

- a) North
- b) South
- c) East
- d) North-east
- e) None of these

Directions Q (9-10): Nakul starts walking from his office towards his house. He starts from the front gate of his office and walks 5 km, then turns left and walks 2 km, then turns left again and walks 4 km, then he turns to his right and walks 3 km, then turns left and walks 1 km and then turns to his left again and walks 4 km, then turns to his right and walks 10 km and finally turns right and walks 3 km and thus reaches the front gate of his house.

9). If Nakul's house is facing south, in which direction did he start walking?

- a) East
- b) West
- c) South
- d) North
- e) None of these

10). Nakul's office is in what direction with respect to his house. If Nakul's house is facing north?

- a) Southwest
- b) South
- c) Northwest
- d) Cannot be determined
- e) None of these

Directions (Q. 11-12): Study the information carefully and answer the questions given below.

A man walks 8m towards east to reach point P. He turns to his right and walks 5m to reach point Q. Then, he turns to his left and walks 9m to reach point R and he turns to his right and walks 11m to reach point S. Finally he turns to his right and walks 20m to reach point T.

11). What is the distance between starting point and Q?

- a) 13m
- b) 9m
- c) $\sqrt{89}$ m
- d) $3\sqrt{27}$ m
- e) None of these

12). If a man walked 3m towards east from point T to reach point U, then what is the distance between point U and starting point?

- a) 16m
- b) 25m
- c) 22m
- d) 33m
- e) None of these

13). A person starts from point A, walks 5m towards south and reaches point B. He then turns left and walks 8m and reaches point C. He then takes a right turn and walks 6m. He takes a final right turn and walks 8m to reach point D. What is the distance between point C and D?

- a) 13m
- b) 12m

- c) 10m
- d) 15m
- e) None of these

14). A car started from point P and moves towards east. After moving a distance of 30m, it took a right turn, again after moving 15m, it took a left turn, and again after moving 10m, he took a right turn. Which direction is the car facing now?

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

15). A directional post is erected on a crossing, in an accident it was turned in such a way that the arrow which was first showing east is now showing north. A passerby went in a wrong direction thinking it is east. In which direction is he actually travelling now?

- a) North
- b) East
- c) West
- d) South
- e) Cannot be determined

16). A person walks 22m towards east from point 'A' and turns his left and walks 6m. Again he turns his right and walked 7m and he reached the point 'P' after walking 6m towards his right. Finally he turns right and stop at point 'B' after walking 19m towards west from point P. What is the distance to reach the starting point from Point B?

- a) 3m
- b) 10m
- c) 4m
- d) 5m
- e) None of these

17). A man started walking from point A and walk towards north and stops at point B. Now he takes a right turn followed by left turn and stops at point C. He finally takes a left turn and stops at point D. Towards which direction the man has to walk from D to B, if he walks 10m before turning each turn?

- a) South
- b) North
- c) East
- d) West
- e) Southeast

18). A man walks 40m towards north and he turns his left and walked 40m. He then turns his left and walked 15m. He finally turns his right and walked 20m. What is the distance he is from starting point and in which direction?

- a) 55m , Northwest
- b) 36m, Northeast
- c) 65m, Southeast
- d) 65m, Northwest
- e) Can't be determined

19). Pinky walks 12m towards southeast and stops at point P and then she walks 24m towards west and again she walks 7m towards northwest direction and stops at point Q. Finally she walks 5m towards east and stops at point S. She is facing which direction from starting point?

- a) Northeast
- b) Northwest
- c) East
- d) Southeast
- e) Southwest

20). A car moves 20km westward, then turns left and moves 10 km. It then again turns left and moves 20km. It takes a 45 degree turn rightwards and moves straight and stops at point S. In which direction is the car is from starting point?

- a) Northeast
- b) Northwest
- c) East
- d) Southeast
- e) Southwest

21). Starting from a point, Bala walked 12 m North, he turned right and walked 10 km, he again turned right and walked 12 m, then he turned left and walked 5 m. How far is he now and in which direction from the starting point?

- a) 27 m towards East
- b) 5 m towards East
- c) 10 m towards West
- d) 15 m towards East
- e) None of these

22). Aathi goes towards East 5 km, then he takes a turn to South-West and goes 5 km. He again takes a turn towards North-West and goes 5 km with respect to the point from where he started, where is he now?

- a) At the starting point
- b) In the West
- c) In the East
- d) In the North-East
- e) In the South-East

23). Rasik walked 20 m towards north. Then he turned right and walks 30 m. Then he turns right and walks 35 m. Then he turns left and walks 15 m. Finally he turns left and walks 15 m. In which direction and how many metres is he from the starting position?

- a) 15 m West
- b) 30 m East
- c) 30 m West
- d) 45 m East
- e) None of these

24). One day afternoon Arun and Mani were sitting in a garden and facing each other. Mani's shadow fall exactly towards Arun's right, Which direction was Mani facing ?

- a) South
- b) East
- c) West
- d) North
- e) None of these

25). A tourist drives 10 km towards east and turns to the right hand drives 3 Km. Then he drives towards west (turning to his right) 3 km. He then turns to his left and drive 2 km. Finally he turns to his right and travel's 7 km. how far is he from his starting point and in which direction would he be?

- a) 10 km, East
- b) 9 km, North
- c) 8 km, West
- d) 5 km, West
- e) None of these

26). Starting from the point X, Jayant walked 15 m towards west. He turned left and walked 20 m. He then turned left and walked 15 m. After this he turned to his right an walked 12 m. How far and in which directions is now Jayant from X?

- a) 32 m, South
- b) 47 m, East
- c) 42 m, North

- d) 27 m, South
- e) None of these

27). Lakshman went 15 kms to the West of his house, then turned left and walked 20 kms. He then turned East and walked 25 kms and finally turning left covered 20 kms. How far was he from his house?

- a) 5 kms
- b) 10 kms
- c) 40 kms
- d) 80 kms
- e) None of these

28). A starts from a point and walks 5kms north, then turns left and walks 3kms. Then again turns left and walks 5kms. Point out the direction in which he is going.

- a) West
- b) South
- c) North
- d) East
- e) None of these

29). 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
- b) 2 km
- c) 3 km
- d) 5 km
- e) None of these

30). A,B,C and D are playing cards. A and B are partners. D faces towards North. If A faces towards West, then who faces towards south?

- a) C
- b) B
- c) D
- d) E
- e) None of these

31).Ramakant walks Northwards. After a while, he turns to his right and a little further to his left. Finally, after walking a distance of 1 km, he turns to his left again. In which direction is he moving now?

- a) North
- b) South
- c) East
- d) West
- e) None of these

32).A dog is taken out every evening by the owner whose home faces East. They walk 200 m West, then 500 m in the South direction. Which direction should they take to reach home ?

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

33).While facing East you turn to your left and walk 10m, then turn to your left and walk 10m and now you turn 45° towards your right and go straight to cover 25m. Now, in which direction are you from your starting point?

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

34).A man was facing East. He took 3 paces forward turned right, walked another 2 paces and then turned right again, took 3 paces and turned his right. Before last turn, in which direction was he facing?

- a) East
- b) North
- c) South
- d) North-West
- e) None of these

35).Two ladies and two men are playing cards and are seated at North, East, South and West of a table. No lady is facing East. Persons sitting opposite to each other are not of the same sex. One man is facing South. Which directions are the ladies facing?

- a) East and West
- b) South and East
- c) North and East
- d) North and west
- e) West and South

36).Nidhi walks 5km towards the North, takes a right turn and walks 10km. She now takes a left turn and walks 5 km. She finally takes another left turn and walks 10km. Towards which of the following directions is she walking now?

- a) East
- b) South
- c) North
- d) West
- e) None of these

37).I am standing at the centre of circular field. I go down South to the edge of the field and then turning left I walk along the boundary of the field equal to three-eights of its length. Then, I turn West and go right across to the opposite point to the boundary. In which direction am I from the starting point?

- a) North-West
- b) North
- c) South-West
- d) West
- e) None of these

38).A person walks 4 km towards west, then turns to his right to travel 9 km. He turns towards east and travels 12 km. Finally, he travels 3 km towards south. How far is he from the initial position (in km) ?

- a) 15
- b) 23
- c) 18
- d) 10
- e) 28

39).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 direction was Sumit facing?

- a) North
- b) South
- c) West
- d) Data inadequate
- e) None of these

40).A girl leaves from her home. She first walks 30 metres in North–west direction and then 30 metres in South–west direction. Next, she walks 30 metres in South-east direction. Finally, she turns towards her house. In which direction is she moving?

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

e) None of these

41).A man goes towards East 5km, then he takes a turn to South-West and goes 5km. He again takes a turn towards North-West and goes 5km With respect to the point from where he started, where is he now?

- a) At the starting point
- b) In the West
- c) In the East
- d) In the North East
- e) None of these

42).Nikhil walked 30m towards East took a left turn and walked 20m. He again took a left turn and walked 30m. How far and in which direction is he from his starting point?

- a) 20m, North
- b) 80m, North
- c) 20m, South
- d) 80m, South
- e) Data inadequate

43).Rakesh is standing at a point. He walks 20m towards the East and further 10m towards the South, then he walks 35m towards the West and further 5 m towards the North, then he walks 15 m towards the East. What is the straight distance (in m) between his starting point and the point where he reached last?

- a) 0
- b) 5
- c) 10
- d) Cannot be determined
- e) None of these

44).Anoop starts walking towards South. After walking 15m he turns towards North. After walking 20m, he turns towards East and walks 10m. He, then turns towards South and walks 5m. How far is he from his original position in which direction?

- a) 10m, North
- b) 10m, South
- c) 10m, West
- d) 10m, East
- e) None of these

45).Village Chimur is 20 km to the North of village Rewa. Village Rahate is 18 km to the East of village Rewa. Village Angne is 12 km to the West of Chimur. If Sanjay starts from village Rahate and goes to village Angne, in which direction is he from his starting point?

- a) North
- b) North-West
- c) South
- d) South-East
- e) None of these

46).From a point, Rajneesh started walking East and walked 35m. He, then turned on his right and walked 35m. He, then turned on his right and walked 20m and he again turned to right and walked 35m. Finally, he turned his left and walked 20m and reached his destination. Now, how far is he from the starting point?

- a) 50m
- b) 55m
- c) 20m
- d) 40m
- e) None of these

47).A rat runs 20m towards East and turns to right, then runs 10m and turns to right, runs 9m and again turns to left, runs 5m and then turns to left, runs 12m and finally turns to left and runs 6m. Now, which direction is the rat facing?

- a) East
- b) North
- c) West
- d) South
- e) None of these

48). Starting from a point S, Mahesh walked 25m towards South. He turned to his left and walked 50m. He, then again turned to his left and walked 25m. He again turned to his left and walked 60m and reached a point T. How far Mahesh is from point S and in which direction?

- a) 10m, West
- b) 25m, North
- c) 10m, East
- d) 25m, West
- e) None of these

49). Mohan walked 30m towards South, took a left turn and walked 15m. He, then took a right turn and walked 20m. He again took a right turn and walked 15m. How far is he from the starting point?

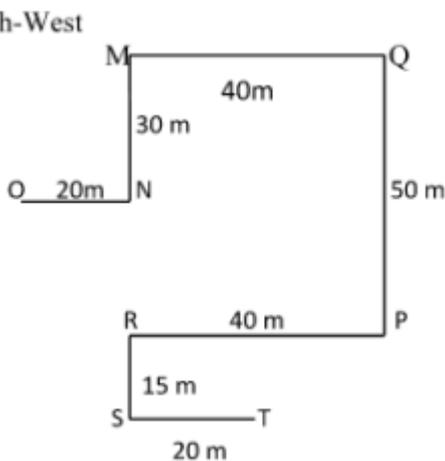
- a) 95m
- b) 50m
- c) 70m
- d) Cannot be determined
- e) None of the above

50). Two buses start from the opposite points of a main road, 150km apart. The first bus runs for 25 km and takes a right turn and then runs for 15km. It then turns left and runs for another 25km and takes the direction back to reach the main road. In the mean time, due to the minor break down the other bus has run only 35km along the main road. What would be the distance between the two buses at this point?

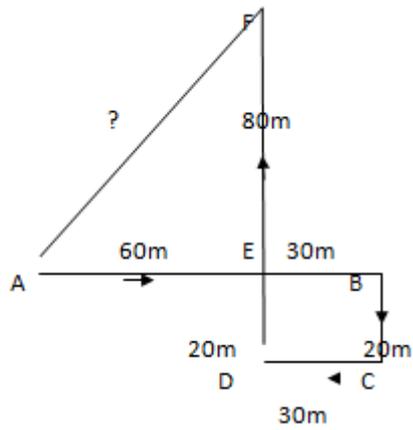
- a) 65km
- b) 80km
- c) 75km
- d) 85km
- e) None of these

Solutions

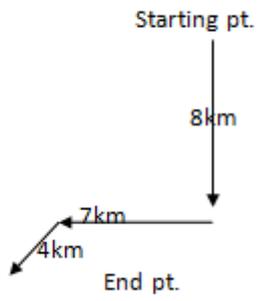
Directions (Q 1 -3):



- 1) Answer is: c)
- 2) Answer is: d)
- 3) Answer is: a)
- 4) Answer is: b)

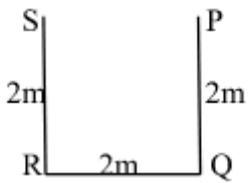


5) Answer is: b)

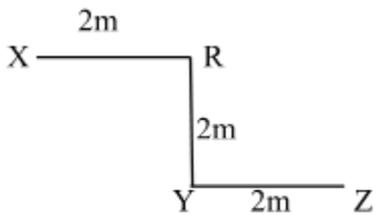


Directions Q. (6-8):

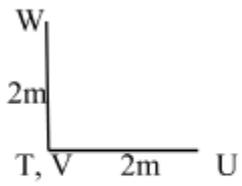
6) Answer is: d)



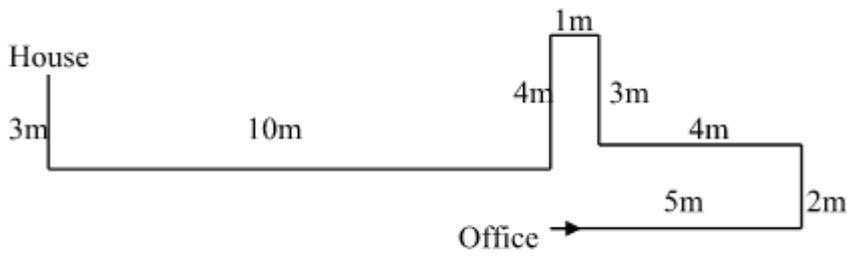
7) Answer is: c)



8) Answer is: e)



Directions Q (9-10):

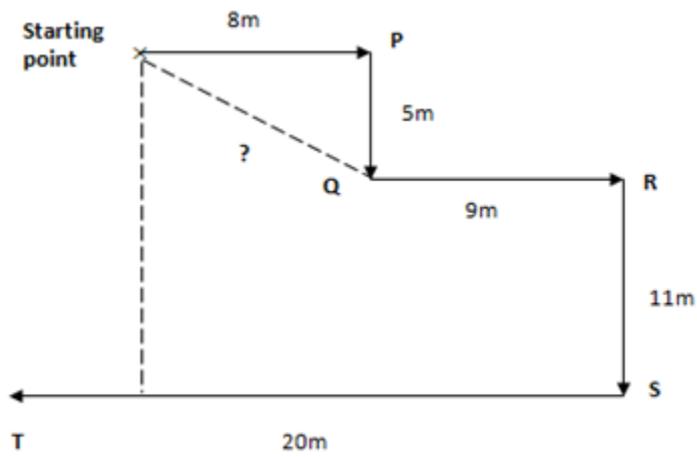


9) Answer is: a)

10) Answer is: c

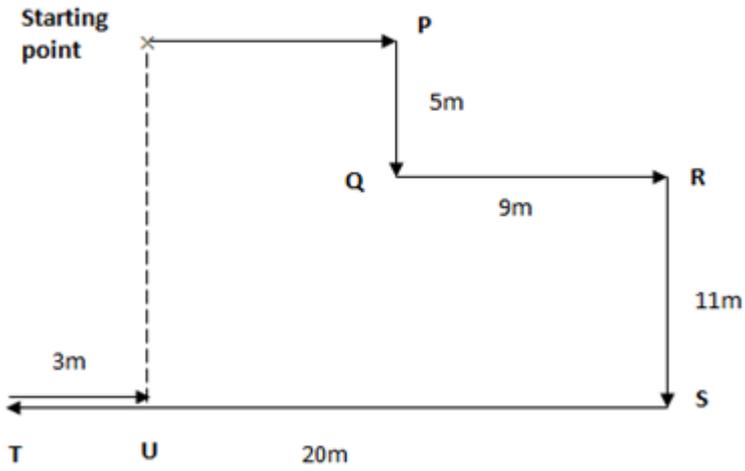
Directions (Q. 11-12):

11). Answer is: c)



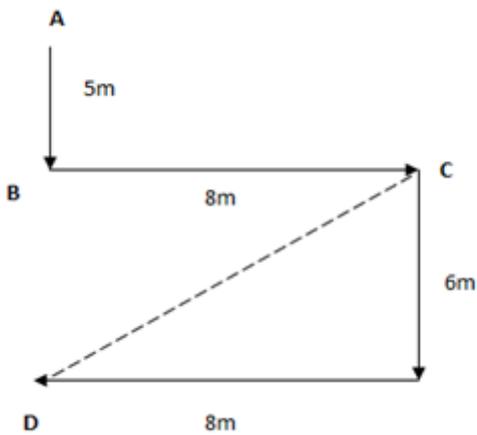
Distance between starting point and Q = $\sqrt{(8^2+5^2)} = \sqrt{(64+25)} = \sqrt{89}m$

12). Answer is: a)



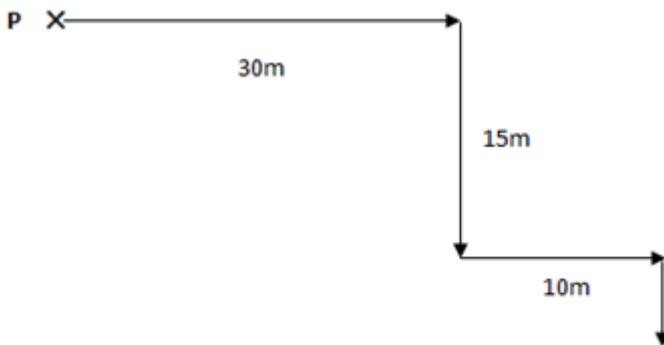
Distance between U and starting point = $11 + 5 = 16\text{m}$

13). Answer is: c)



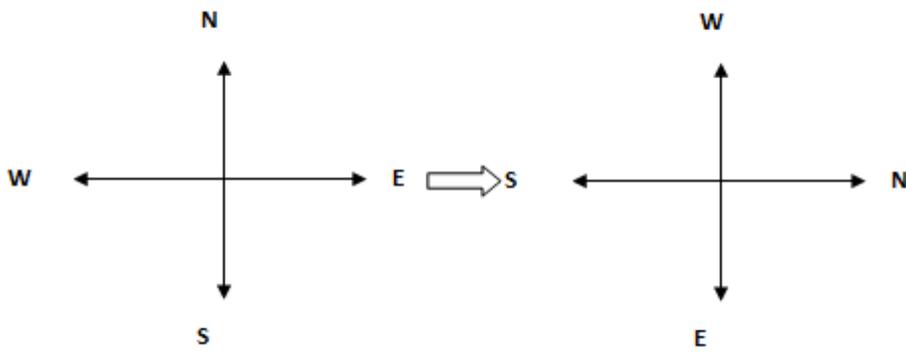
Distance between C and D = $\sqrt{(8^2+6^2)} = \sqrt{(64+36)} = \sqrt{100} = 10\text{m}$

14). Answer is: b)



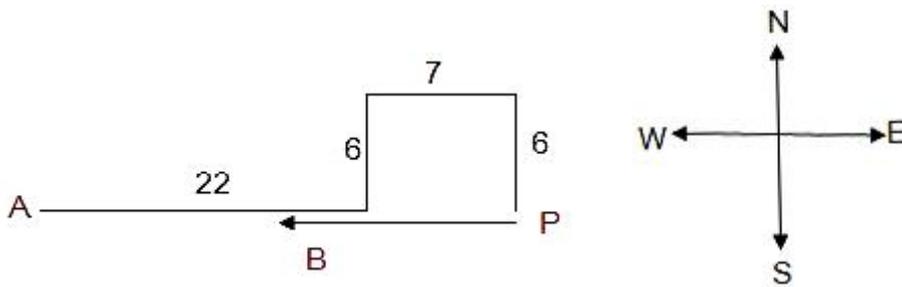
The car is facing the south direction.

15). Answer is: d)

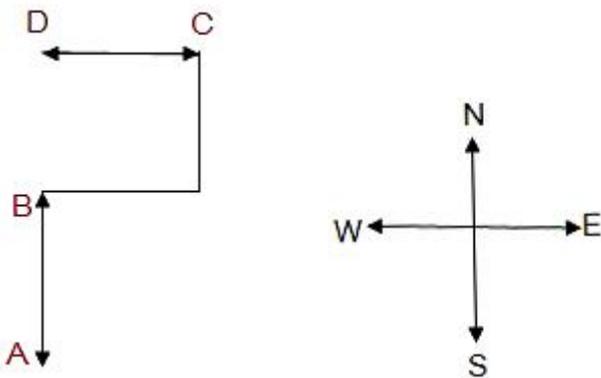


When the arrow turns, north becomes west, east becomes north, south becomes east, west becomes south. So, he travels in south direction.

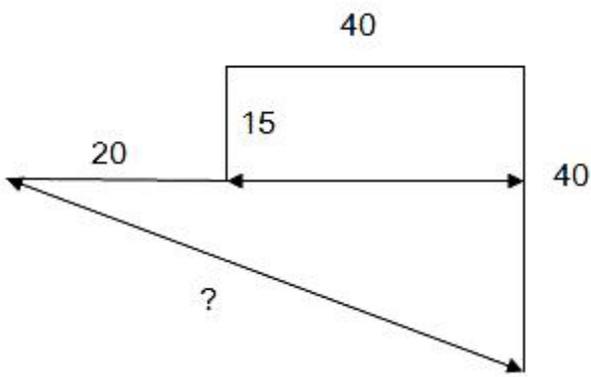
16). Answer is: B)



17). Answer is: A)



18). Answer is: D)



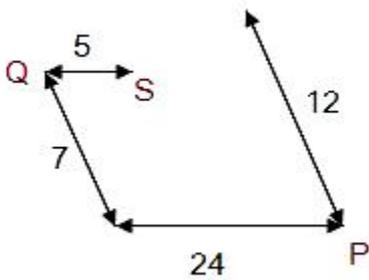
$$40 + 20 = 60$$

$$40 - 15 = 25$$

$$? = \sqrt{60^2 + 25^2}$$

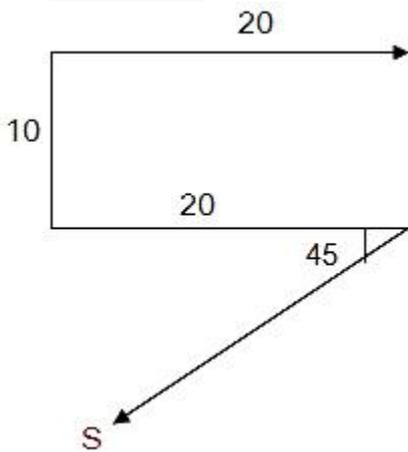
$$= \sqrt{4225} = 65\text{m, North West}$$

19). Answer is: E)



South West

20). Answer is: E)



South West

21). Answer is: d

22). Answer is: a

23). Answer is: d

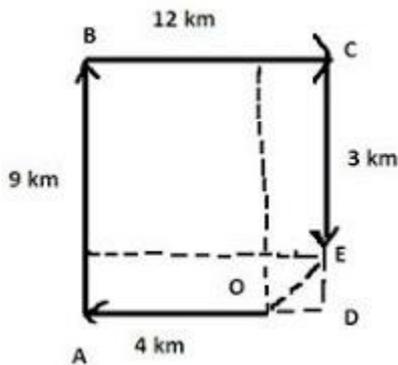
24). Answer is: a

25). Answer is: d

26). Answer is: A

27). Answer is: C

- 28). Answer is: B
 29). Answer is: B
 30). Answer is: D
 31). Answer is: d)
 32). Answer is: a)
 33). Answer is: d)
 34). Answer is: e)
 35). Answer is: d)
 36). Answer is: d)
 37). Answer is: c)
 38). Answer is: d)

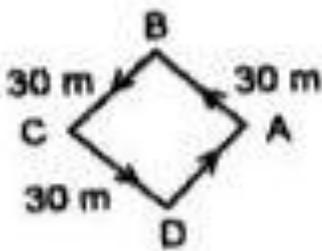


From the figure, the distance OE is to be calculated. In triangle ODE, $OE = \sqrt{(OD)^2 + (DE)^2}$
 $= \sqrt{(BC - AO)^2 + (AB - CE)^2}$
 $OE = \sqrt{(8^2 + 6^2)} = 10\text{km.}$

- 39). Answer is: b)

In the evening, sun is in the west and so the shadows fall towards east. Now, since Mohit's shadow fell towards right, therefore, Mohit is facing North. So, Sumit standing face to face with Mohit, was facing South.

- 40). Answer is: a)

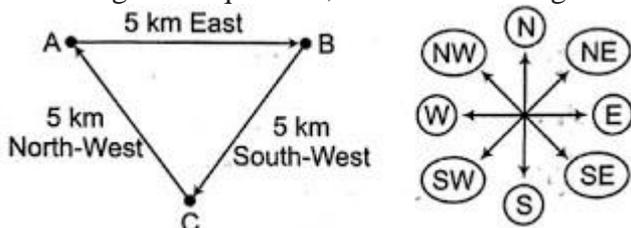


The movements of the girl are as shown in Fig.
 (A to B, B to C, C to D, D to A).

Clearly, she is finally moving in the direction DA i.e. North east.

- 41). Answer is: a)

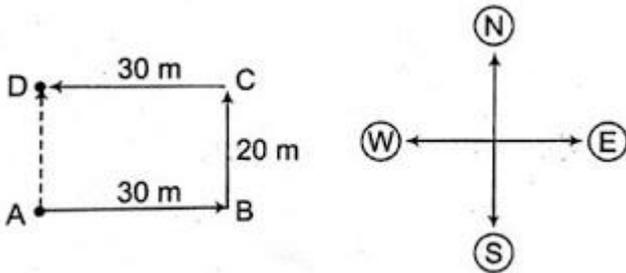
According to the question, the direction diagram is as follows



It is clear from the diagram that both starting and finishing point are same i.e. , the man is at starting point 'A'.

42). Answer is: a)

According to the question, the direction diagram is as follows

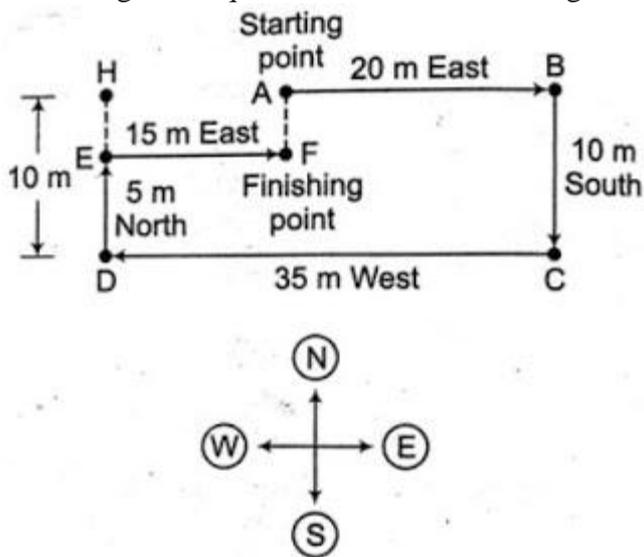


Required distance = $AD = BC = 20\text{m}$

So, Nikhil is 20m North from his starting point

43). Answer is: b)

According to the question. The direction diagram is as follows



From diagram, $AB = 20\text{m}$

$BC = HD = 10\text{m}$

$ED = 5\text{m}$

$CD = 35\text{m}$

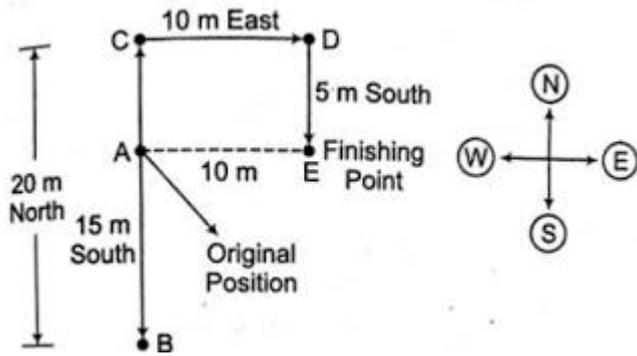
$HE = AF$

Required distance, $AF = HF = HD - ED$

$= 10 - 5 = 5\text{m}$

44). Answer is: d)

According to the question, the direction diagram is as follows



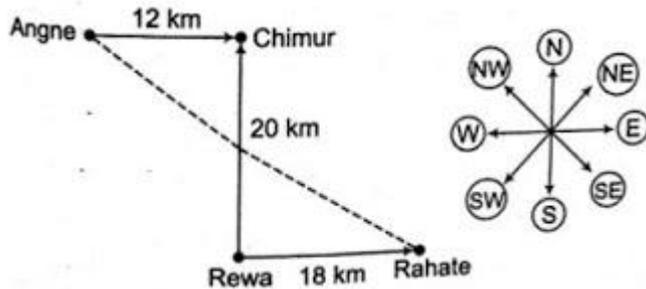
A = Original position, E = Finishing point

BC = 20, AB = 15m, AC = ED = 5m, CD = AE = 10m

Clearly, at finishing point E, Anoop is 10 m East from original position A.

45). Answer is: b)

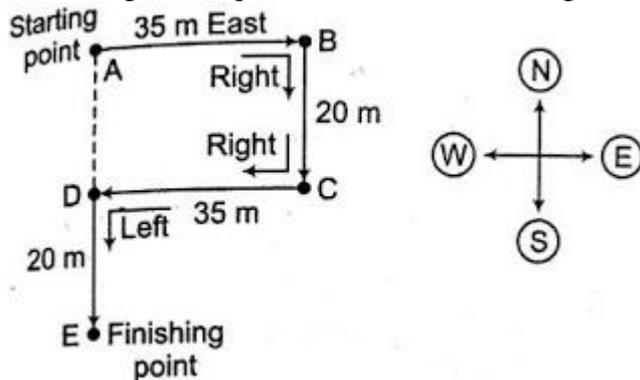
According to the question, the direction diagram will be as follows



Clearly, Sanjay will go North-West starting from Rahate to reach Angne.

46). Answer is: d)

According to the question, the direction diagram is as follows



AB = CD = 35m

BC = AD = 20m

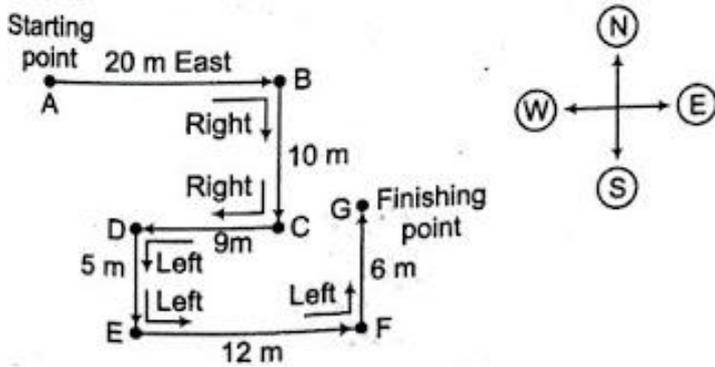
DE = 20m

Required distance, AE = AD + DE

= 20 + 20 = 40m

47). Answer is: b)

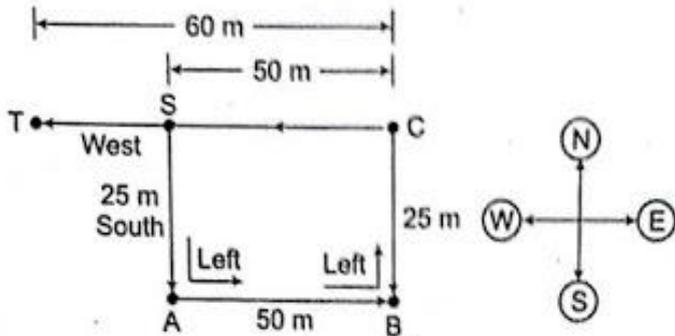
According to the question, the direction diagram is as follows



Clearly, the rat is facing North at finishing point.

48). Answer is: a)

According to the question, the direction diagram is as follows



S = Starting point, T = Finishing point

AS = BC = 25m

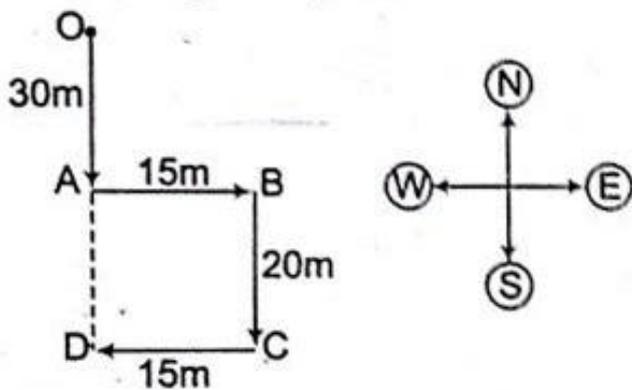
AB = SC = 50m

CT = 60m

Required distance, ST = CT - SC = 60 - 50 = 10m

Clearly, at point T, Mahesh is 10 m West from S.

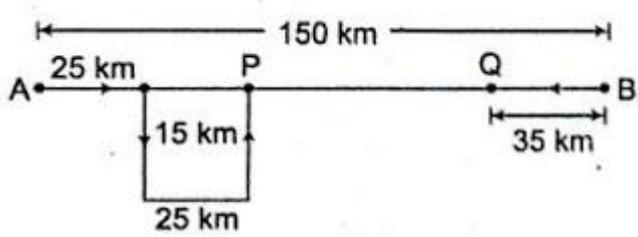
49). Answer is: b)



Required distance = OD = OA + AD = OA + BC

= 30 + 20 = 50m

50). Answer is: a)



$$\text{Required distance} = PQ = 150 - (25 + 25 + 35) = 65\text{km}$$