



LearnFrenzy
QUALITY EDUCATION

REASONING ABILITY

DIRECTION **TEST**

Master spatial sense, distance calculation, and orientation logic through our comprehensive analytical problem-solving guide.

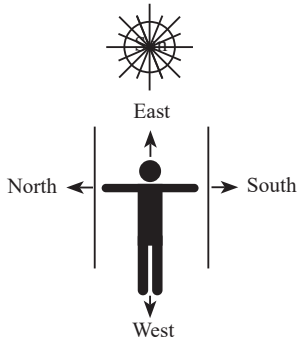


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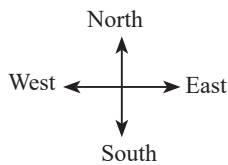
Direction Test

Direction

Direction is actually a standard assumption with the help of which the relative position of an object is told. This standard assumption is made on the basis of the position of the sun. According to this assumption, the direction where the sun rises is the east direction and the direction where it sets is the west direction. If we stand facing the sun at sunrise, i.e. if we stand facing the east, then south will be on our right hand side and north on our left hand side.

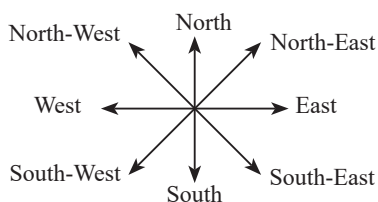


Four Main Directions



On paper, north direction is always considered on the top, south direction on the bottom, east direction on the right and west direction on the left, but if the direction is considered at a different place in the question, then in such a situation the solution will be according to the direction considered in the question.

Four Cardinal Directions



Position of Left and Right in Different Directions

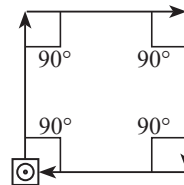
Towards North

Left ↑ Right

Towards East

Left → Right

Right Turn



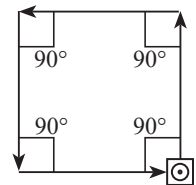
Towards South

Right ↓ Left

Towards West

Right ← Left

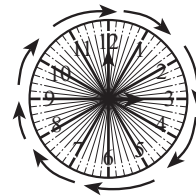
Left Turn



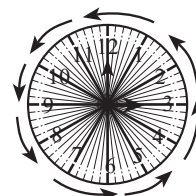
The initial point $\odot$ will be indicated by a symbol and the final point $\square$ or position will be indicated by a symbol. If the final position and the initial position are the same, then a symbol $\odot$ will be used. By doing this, the diagram drawn will be more clear and it will take less time to solve the question.

If it is not clear in the question that at what degree to turn right or left, then the right or left will always be turned at an angle of 90° . As it is clear in both the pictures above.

Right Turn i.e. Clockwise



Left Turn i.e. Anticlockwise



Direction Test

Shadow

Shadows are formed only when light is available, as well as we all know that shadows are always formed in the opposite direction of the light. If a person can see his shadow in front, it means that he is looking away from the light or it can also be said that his face is in the opposite direction of the light. Similarly, if a person cannot see his shadow, it means that his face is towards the light.

Often, instead of giving directions clearly in the questions, the position of the shadow is given. For example, if A is standing at sunrise in such a way that his shadow is exactly in front of him, then in which direction is he facing? Hence, while getting the direction from the shadow, the following points should be kept in mind-

Position of Shadow at Sunrise

- At the time of sunrise i.e. in the morning (morning time) the sun is in the east direction, so the shadow will be formed towards the west (opposite to the sun).
- If a person stands facing the Sun, then his shadow will be formed in the west direction i.e. in the opposite direction of his face.
- If a person stands facing south then his shadow will be formed exactly on his right because the position of west with respect to south is on his right.
- If a person stands facing west then his shadow will be formed in front of him and he will be able to see his shadow easily.
- If a person stands facing north then his shadow will be formed exactly on his left.

Position of Shadow at Sunset

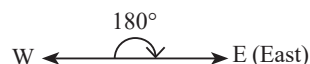
- At the time of sunset i.e. in the evening, the sun is in the west direction. Hence the shadow will be formed towards the east (opposite to the sun).
- If a person stands facing the sun then his shadow will be formed in the east i.e. in the opposite direction.
- If a person stands facing south then his shadow will be formed exactly on his left.
- If a person stands facing east then his shadow will be formed exactly in front of him and he will be able to see his shadow easily.
- If a person stands facing north then his shadow will be formed exactly on his right.

Position of Shadow at 12 Noon

At 12 noon the sun rays fall directly on the earth. Hence no shadow is formed at this time.

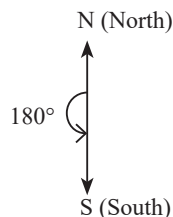
If one turns 180° in any direction, then it will be its opposite direction.

- For example – If a person standing facing west turns 180° right, then his current direction will be



Current direction = East

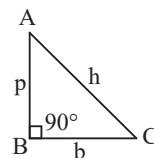
- If a person standing facing north turns 180° left then his current direction will be



Current direction = South

Pythagoras Theorem: This theorem of mathematics is very useful for solving the questions of the Direction Test chapter. According to this, “The square of the side opposite to 90° is equal to the sum of the squares of the other two sides.”

Hence, in $\triangle ABC$ (where, $\angle B = 90^\circ$) $AC^2 = AB^2 + BC^2$



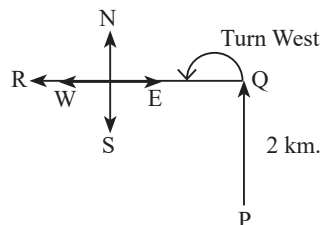
- (1) If the direction of the final location is being asked relative to the starting location then the direction field $\left(\begin{array}{c} N \\ W \text{---} E \\ S \end{array} \right)$ will be kept at the starting location (☉).
- (2) If the direction of the initial position is being asked with respect to the final position then the direction instrument will be kept at the final position (☐).
- (3) If the direction is not being asked relative to anyone, but only the direction in which the person is currently facing or the direction in which he is currently moving, then in such a situation the direction instrument will be placed a little before the last position (☐).

Example:

1. A starts walking from a point, 2 km in the north direction. After walking, he turns left and starts walking again. In which direction is he walking?

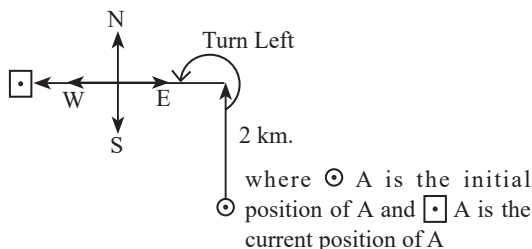
- (1) North
- (2) South
- (3) East
- (4) West

Sol. (4)



A starts walking from point P. Walks 2 km towards north and reaches point Q. From Q, he turns left i.e. in anticlockwise direction and walks towards R i.e. in west direction.

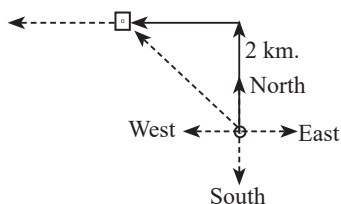
Here its current direction is being asked but it is not told with respect to what. So in such a situation we will follow the direction which is generally considered on paper. This diagram can also be made in this way-



2. In the above question, in which direction is A from his initial position?

- (1) East-West (2) West-North
(3) North-East (4) South-West

Sol. (2)



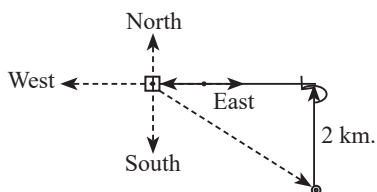
A is in the North-West direction from his initial position. Since it is clear from the question here that the direction of the current position relative to the initial position is being asked, hence the correct answer is being found by

placing the direction sign $\left(\begin{array}{c} \text{N} \\ \text{W} \leftarrow \rightarrow \text{E} \\ \text{S} \end{array} \right)$ at the initial position.

3. In question number 1, in which direction is the initial position of A from his current position?

- (1) North-east (2) North-west
(3) South-east (4) South-west

Sol. (3)

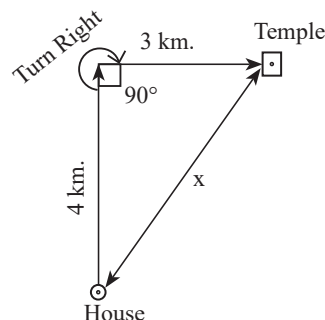


The initial position of A is in the South-East direction from the current position. Here the direction of the initial position relative to the current position has been asked, so option (3) is correct.

4. Ram goes 4 km from his house in the north direction, from there he turns right and goes 3 km and reaches a temple, then what will be the distance between the temple and the house?

- (1) 5 km (2) 4 km
(3) 7 km (4) none of these

Sol. (1)



Since it is not clear in the question at what degree the right turn is made, in such a situation the turn is made at an angle of 90° . The distance between the temple and the house is not known, so let us assume it to be x . The side opposite to 90° is x .

From Pythagoras theorem,

The square of the side opposite to 90° is equal to the sum of the squares of the other two sides.

$$\begin{aligned} x^2 &= (4)^2 + (3)^2 \\ x &= \sqrt{(4)^2 + (3)^2} \\ &= \sqrt{16 + 9} = \sqrt{25} = \pm 5 \end{aligned}$$

$\therefore$ Distance is not negative.

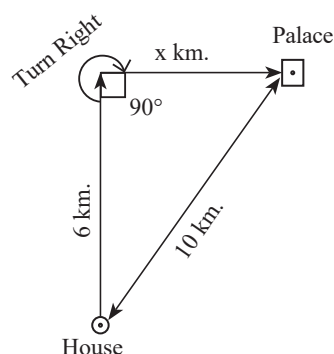
Hence $x = 5$, distance between temple and house = 5 km.

Hence, option (1) is correct.

5. Sudama first walks 6 km in the north direction from his house to meet his friend. Then he turns right and walks a few km. He reaches a palace, which is his friend's house. If the minimum distance of the palace from Sudama's house is 10 km. Then how many km did Sudama walk in the east direction?

- (1) 16 km (2) 4 km
(3) 6 km (4) 8 km

Sol. (4)



Direction Test

He starts his journey from Sudama ☉. After travelling 6 km in the north direction, he turns right i.e. a few km towards the east. After travelling (x), he reaches ☐ there. The minimum distance between ☉ and ☐ is 10 km.

By Pythagoras theorem,

$$(10)^2 = (6)^2 + (x)^2$$

$$100 = 36 + x^2$$

$$x^2 = 100 - 36$$

$$x^2 = 64$$

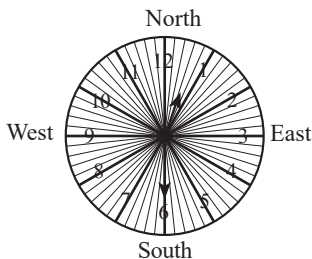
$$\therefore x = \sqrt{64} = 8$$

Thus the distance covered by Sudama in the east direction was 8 km. Hence option (4) is the correct answer.

6. If east is north, north is west, west is south and south is east, and the time is 12:30 in the afternoon, then in which direction will the minute hand be?

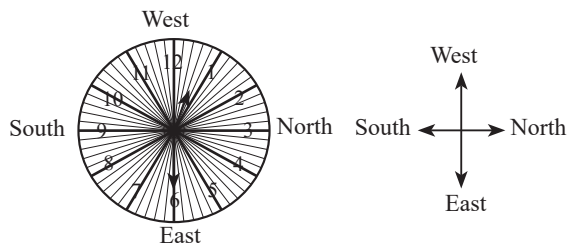
- (1) East (2) West
(3) North (4) South

Sol. (1)



At 12:30 in the afternoon, the minute hand is at 6 and the hour hand is at about 12, i.e., the hour hand is in the north direction and the minute hand is in the south direction.

But according to the instructions given in the question,

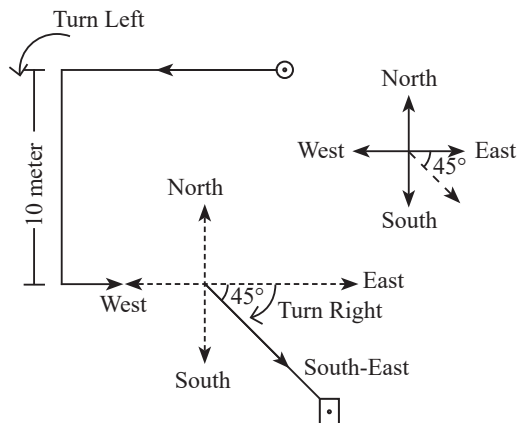


at 12:30, the minute hand will be in the east direction. Hence, option (1) is correct.

7. One day, early in the morning, Lakhan starts walking in such a way that his shadow falls in front of him. After a while, he turns left, then walks 10 meters and again turns left. After a while, he turns 45° right. In which direction is he going now?

- (1) East (2) West
(3) North-East (4) South-East

Sol. (4)



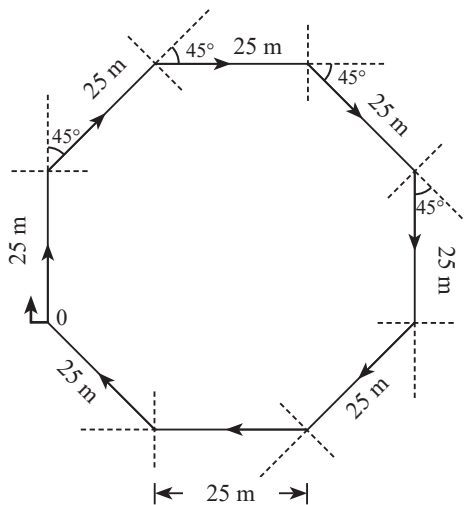
Early in the morning the sun is in the east, so the shadow will be formed in the west direction. Since Lakhan's shadow is formed in front of him, it is clear that Lakhan is walking in the west direction. On turning left he goes 10 meters towards south. Again he turns left and walks some distance, after that he again turns right at 45° and walks. From the picture thus formed it is clear that right now Lakhan is walking in the south-east direction.

Hence option (4) is correct.

8. Kusum walks in such a way that she turns 45° right after every 25 m. So after how many turns will she go back in the same direction in which she was walking initially?

- (1) 4 times (2) 5 times
(3) 8 times (4) 6 times

Sol. (3)



The direction of motion of a person is equal to the initial direction when the value of θ is 360° i.e. Kusum will have to turn $\frac{360}{45} = 8$ times or as per the diagram drawn

which shows the motion of Kusum, Kusum will have to turn 8 times to move in the initial direction.

9. In question (8) above, if Kusum starts walking from point O, then after covering how much distance will she walk back to her starting direction?

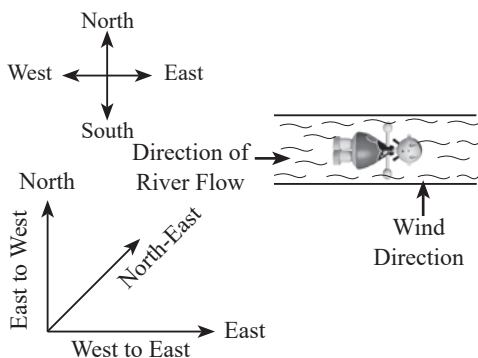
- (1) 400 m. (2) 200 m.
(3) 300 m. (4) 100 m.

Sol. (2) Since Kusum turn 45° after every 25 m of walking. Therefore, distance covered in 8 turns = $25 \times 8 = 200$ m. Hence option (2) is correct.

10. A wooden doll is floating in a river flowing from west to east. If the direction of wind is from south to north, what will be the actual direction of flow of the wooden doll?

- (1) East (2) West
(3) North-West (4) North-East

Sol. (4)



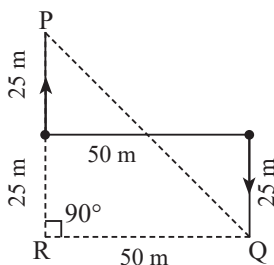
The actual direction of the flow of the wooden doll will be the resultant direction i.e. north-east. North-east is also called Purvottar, so option (4) is correct.

11. P and Q are standing 50 m apart facing each other. P is facing east. Both start walking with uniform speed turning to their left. If both of them walk at a speed of 5 m/s for 5 s. Q stops there and P starts walking facing Q at a speed of $5\sqrt{2}$ m/s. Then in how much time will they meet?

- (1) 100 second (2) 10 second
(3) $10\sqrt{2}$ second (4) $100\sqrt{2}$ second

Sol. (2) P $\longrightarrow$ $\longleftarrow$ Q

Distance covered by each in 5 seconds = $5 \times 5 = 25$ m.



$$QR = 50 \text{ m}$$

$$PR = 25 + 25 = 50 \text{ m}$$

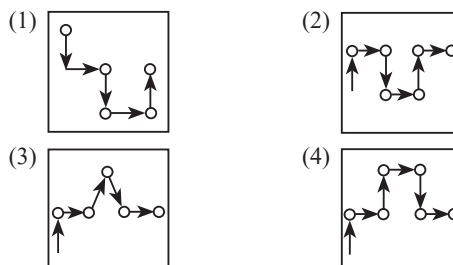
$$\begin{aligned} PQ &= \sqrt{(50)^2 + (50)^2} \\ &= \sqrt{2500 + 2500} = \sqrt{5000} \\ &= \sqrt{2 \times 5 \times 5 \times 10 \times 10} \\ &= 5 \times 10\sqrt{2} = 50\sqrt{2} \end{aligned}$$

Hence, in time for both of them to meet at a speed of $5\sqrt{2}$ m/s

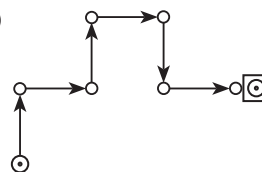
$$\text{Time taken} = \frac{50\sqrt{2}}{5\sqrt{2}} = 10 \text{ second}$$

Hence, option (2) is correct.

12. A rabbit moves towards north then jumps right, then left, then right, then right and finally left. Which path diagram shows the correct movements of the rabbit?



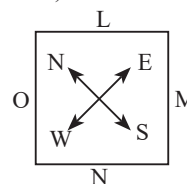
Sol. (4)



The correct diagram of the rabbit's activities is visible only in option (4).

Hence the correct option is (4).

13. In a square field, four people L, M, N, O are standing in the middle of each side. (Follow the directions as shown in the picture below)

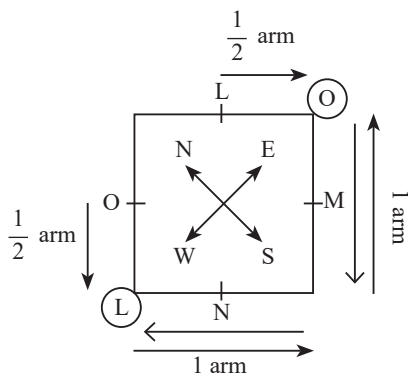


If L moves clockwise $2\frac{1}{2}$ and O moves anticlockwise $2\frac{1}{2}$ then they will be-

- (1) In the south and west.
(2) In the north and east region.
(3) In the north and south region.
(4) In the west and east region.

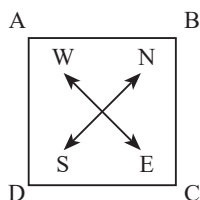
Direction Test

Sol. (4)



In this way, 'L' will be in the west direction and 'O' will be in the east direction. Hence option (4) is correct.

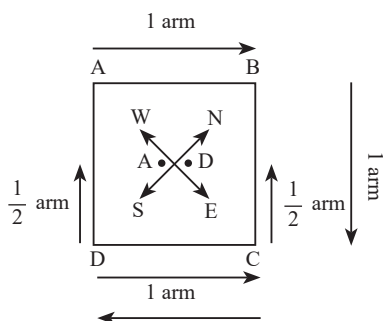
14. There are four people A, B, C and D at the four corners of a square ground. (Follow the directions as shown in the picture below)



If A moves clockwise $3\frac{1}{2}$ and D moves anticlockwise $1\frac{1}{2}$ then they will be—

- (1) In the south-east and north-west region.
- (2) In the south-west and north-east region.
- (3) In the south-east and north-east region.
- (4) In the south-west and north-west region.

Sol. (2)



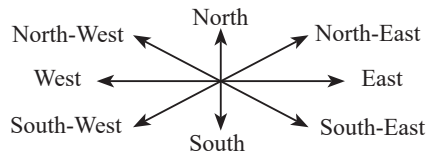
A reaches in the south-east (S-E) direction when the arm moves $3\frac{1}{2}$ clockwise and D reaches in the north-east (N-E) direction when the moves $1\frac{1}{2}$ anticlockwise. Hence the correct option is (3).

15. A bridge had to be built over a river. Due to a mistake by the civil engineer, the map was drawn incorrectly. It was drawn in such a way that south-east became north,

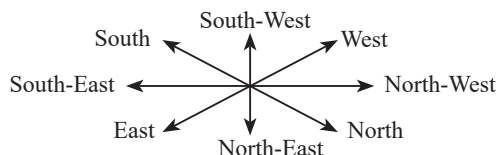
north-east became west, etc. In such a situation, what would become of the south?

- (1) East-South
- (2) North-East
- (3) North-West
- (4) South-West

Sol. (2) Actual status of direction



New position of direction after mistake

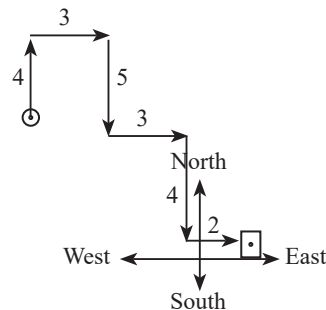


The earlier south direction is currently North-East. **Hence option (2) is correct.**

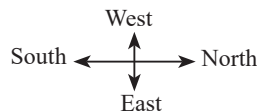
16. Sarfaraz leaves his house and walks 4 km (but it is not known in which direction). From there he walks 3 km right, then 5 km right. Again 3 km left and then 4 km right. Finally he walks 2 km left. Thus at present he is facing north. So in which direction did he walk 4 km initially? Also tell how many km Sarfaraz walked in total?

- (1) North, 20 km.
- (2) South, 21 km.
- (3) East, 20 km.
- (4) West, 21 km.

Sol. (4) We assume north as our initial direction.



From the question, in the final position Sarfaraz was facing north i.e. east direction is actually north. In this order, on turning the direction diagram,



It is clear from this picture that the distance which was initially considered to be 4 km in the north direction was actually in the west direction.

Total distance covered by Sarfaraz

$$= 4 + 3 + 5 + 3 + 4 + 2 = 21 \text{ km}$$

Hence, option (4) is correct.

Practice Questions

- Nisha starts walking from point A. After walking 2 km in the north direction, she turns right again. In which direction is she going?
(1) North (2) South
(3) East (4) West
- During a circus show, a lion walks 10 feet towards north and then turns to its right and walks 4 feet and then turns 4 feet towards south and finally turns to its left and walks 4 feet and reaches the ringmaster. What was the distance between the lion and the ringmaster initially, if the ringmaster did not move from his place?
(1) 22 feet (2) 10 feet
(3) 8 feet (4) None of these
- P starts walking from his school. After walking 5 km in the east direction, he turns right and walks 2 km. He continues walking in the same direction. In which direction is P walking?
(1) North (2) South
(3) East (4) West
- Krishna and Arjuna are 40 m away from each other. If Krishna had to turn 45° and 60° in the anticlockwise direction twice to hug Arjuna and then turn 150° clockwise for the third time and walk 40 m, then in which direction is Arjuna facing? If Krishna is initially facing the west direction.
(1) North-west (2) East
(3) North (4) South-east
- Akash walks from his house towards the north. After walking some distance, he turns right and walks straight to reach his school. In which direction is Akash's school from his house?
(1) North-West (2) North-East
(3) South-West (4) South-East
- In which direction will the minute hand be when the time is 10:30?
(1) East (2) West
(3) North (4) South
- Rohan starts walking from point M. He travels 4 km in the north direction. Then he turns right and travels 4 km. Then he turns right and travels 4 km. Then he turns right and travels 6 km. In which direction and at what distance is he from the starting point M?
(1) West, 2 km. (2) East, 2 km.
(3) North, 4 km. (4) South, 4 km.
- Neha travels 4 km from a place towards north. Then she turns left and travels 3 km. How far and in which direction is she from the starting point?
(1) 5 km, north (2) 5 km, northward
(3) 5 km, northwest (4) 5 km, east
- A, B, C, D are playing carrom in which A and B are partners. Partners always sit opposite to each other. If C is sitting to the right of B and faces north, then in which direction will A face opposite to??
(1) West (2) North
(3) East (4) South
- A person goes 3 km towards the south. After this he turns right and again goes 3 km. Then he turns left and goes 2 km. Again he turns left and goes 3 km. Tell how far is he now from his starting point?
(1) 6 km (2) 3 km
(3) 5 km (4) 8 km
- If Mohan's shadow is formed towards the east then in which direction is the position of the sun?
(1) East (2) West
(3) North (4) South
- An order delivery person travelled 5 km in the north direction to deliver an order, then after turning left he travelled 10 km more. After this he delivered the order to a customer who was 10 km west of his starting point. Find how much distance he travelled?
(1) 5 km (2) 10 km
(3) 20 km (4) None of these
- How many times should a person walking towards south-west turn in what order so that he finally starts walking towards east?
(1) Left, Left, 45° Left
(2) Right, Right, Right
(3) Left, Left, Left
(4) Right, Right, 45° Right

Directions (Q. 14-16): Answer the questions based on the following information.

Pankaj went 6 meters north from his house. Then he turned from there and went 8 meters east and sat on the chair kept there.

- How far is he sitting from his house?
(1) 4 m (2) 6 m
(3) 8 m (4) 10 m
- In which direction of the chair is Pankaj's house?
(1) North-West (2) South-West
(3) South-East (4) North-East
- The chair on which Pankaj is sitting is in which direction of Pankaj's house?
(1) North-West
(2) South-West
(3) South-East
(4) North-East

Direction Test

17. Shyam Rangeela turns 45° clockwise from his house and leaves for Natya Academy. Due to traffic jam on the way, he has to take another alternate route after reaching his house for which he has to turn 45° clockwise and then travel 6 km and then turn left and travel 8 km. Thus, find whether an alternate route is more suitable for Shyam or the main route?
- (1) Main route (2) Alternate route
(3) Data insufficient (4) Cannot be determined
18. Kalyan's shadow falls on Sita. If the sun is in the west, then in which direction of Kalyan is Sita standing?
- (1) West (2) East
(3) North (4) South
19. A train travels 10 km in the north direction and reaches Bandra station. After that it travels 8 km in the east and reaches Pune Junction. What is the shortest distance between the two stations?
- (1) 18 km (2) 2 km
(3) 6 km (4) None of these
20. Shantanu walks 2 km towards north, turns right and walks 2 km. Then turn left and walk 2 km. Finally turns right again and walks 2 km. In which direction is he facing now?
- (1) East (2) West
(3) North (4) South
21. Anurag goes 10 km. towards north, from there he goes 6 km. towards the south, then he goes 3 km. towards the west. Tell in which direction and at what distance is he from his initial position?
- (1) 5 km, north-west (2) 5 km, north-east
(3) 5 km, south-west (4) 5 km, south-east
22. One morning, sometime after sunrise, Shilpi meets Manisha on her way to college. Manisha's shadow was exactly to the right of Shilpi. If they were both facing each other, in which direction was Shilpi facing?
- (1) North (2) South
(3) East (4) West
23. L is to the west of M. N is to the east of O. M is to the north of O. In which direction is N with respect to L?
- (1) West (2) East
(3) North (4) None of these
24. To go from home to office, Ramesh has to walk in the following order – 'North → West → South → East → South-East' Find in which direction Ramesh will have to turn for the last time while returning home from office?
- (1) North-west (2) North
(3) South (4) None of these
25. Akanksha walks 11 km north from her house. She turns right and walks 11 km. She again turns right and walks 11 km and then turns left and walks 8 km. How far and in which direction is she from her house?
- (1) 17 km, west (2) 19 km, east
(3) 19 km, west (4) 17 km, east
- Directions (Q. 26-28):** Answer the questions based on the following information.
26. Rajdeep walks 50 m eastwards from his house to reach the Gurudwara, then turns left and walks 20 m straight. Again he turns left and walks 35 m straight. Finally he again turns left and walks 20 m and reaches the Gurudwara. What is the distance between the house and the Gurudwara?
- (1) 15 m (2) 20 m
(3) 25 m (4) 85 m
27. In the above question, in which direction is the Gurudwara from the house?
- (1) North (2) South
(3) East (4) West
28. How far would Rajdeep have been from his home if he had not turned last time?
- (1) 65 m (2) 20 m
(3) 30 m (4) 25 m
29. Ravish has to go to a shopping mall. He walks a few meters in the opposite direction from his house, which is in the east, and reaches a railway crossing. There is a theater on its left end and a hospital right in front. If the theater and the shopping mall are opposite to each other, then in which direction is the shopping mall from the crossing?
- (1) North (2) South
(3) East (4) West
30. A lion runs 20 m east to hunt a deer and turns right and runs 10 m. Now he turns right and runs 9 m, again turns left and runs 5 m, again turns left and runs 12 m and finally turns left and runs 6 m. Now, in which direction is the lion facing?
- (1) East (2) West
(3) South (4) North
31. Rama walks towards north and reaches a crossroad and sees that the road going straight to her leads to the army canteen and the road going to the left leads to the hospital. She wants to go to her college. In which direction should she go for this? If one goes in any one direction from the crossroad, she will find the college.
- (1) In the west direction (2) In the east direction
(3) In the north direction (4) None of these
32. If Pankaj is able to see his shadow at sunset then in which direction will Pankaj's friend Pawan be facing if Pankaj and Pawan are facing opposite directions to each other?
- (1) South (2) North
(3) West (4) East
33. A police officer is looking for a thief. He went 50 m east and then he turned right. He walked 20 m and again

turned right and reached a tea stall which is 20 m away from there. The police officer did not find the thief there either. From here he went 60 m north. There he found the thief hiding in a house. How far did the police officer find the thief from the starting point?

- (1) 100 m (2) 50 m
(3) 150 m (4) 0 m

Directions (Q. 34-35): Answer the questions based on the following information.

34. A vegetable vendor takes his cart 40 meters north from his house, from there he turns right and goes 5 meters, then again turns left and goes 10 meters. Now he turns 25 meters left and goes 50 meters south. Then he turns right and walks 30 meters and reaches the vegetable market. How far is the vegetable market from his house?
(1) 50 m (2) 100 m
(3) 150 m (4) None of these
35. In the above question, in which direction is the vegetable market located from the house?
(1) East (2) North
(3) West (4) South
36. If north-east becomes north-west. If north becomes west then what will become of south?
(1) South-west (2) East
(3) West (4) South-east
37. Rahul is currently walking towards east, from there he goes 60 m towards north and turns 180° right and continues walking, in which direction is he walking?
(1) South (2) West
(3) North (4) East
38. A politician was standing facing north for an election campaign. After finishing his election speech, he turned 180° left and started walking towards the helicopter in the field. Tell in which direction is he walking?
(1) North (2) East
(3) South (4) West
39. A ship is sailing in the east direction in the Arabian Sea. Due to a collision with an iceberg, the ship turns 90° to the left. So tell in which direction is the ship currently sailing?
(1) West (2) East
(3) South (4) North
40. Sonam goes 60 m in the north direction. She turns left and walks 20 m, turns left again and walks 65 m. Finally she turns 45° right and stops. In which direction is she facing?
(1) North-west (2) South-west
(3) North-east (4) South
41. Sanskriti is facing south. She turned right and walked 30 m. Then she turned right and walked 15 m. Then she turned left and walked 15 m and then turned right and walked 30 m. Finally she turned right and walked 70 m.

So in which direction is Sanskriti from the starting point?

- (1) North (2) East
(3) North-west (4) North-east

42. A river is flowing from east to west while a swimmer starts swimming from the northern bank towards the southern bank. What will be the actual direction of his motion if a person is standing on the bank and watching him?
(1) West (2) South
(3) South-west (4) North-east
43. An auto driver started from his village and after travelling 20 kms. towards the north stopped for refreshment. Then he turned left and after travelling 40 km. stopped for lunch. After resting for a while he again turned left and travelled 20 km. before stopping for evening tea. He again turned left and travelled 35 km. to reach a dhaba where he had dinner. In which direction did he travel after evening tea?
(1) North (2) South
(3) East (4) West
44. K is located 7 km away in the north-west direction from the capital city P. R is located 7 km away in the south-west direction from K. M is located 7 km away in the north-west direction from R. T is located 7 km away in the south-west direction from M. In which direction is T located from P?
(1) South-west (2) West
(3) North-west (4) East
45. If a clown in a circus stands on his head facing south, in which direction will his right hand be?
(1) North (2) South
(3) East (4) West
46. A man is facing west, he turns 45° clockwise and then turns 180° . In which direction is he facing now if north becomes east, east becomes south, south becomes west and west becomes north.
(1) South-west (2) South-east
(3) North-east (4) None of these
- Directions (Q. Nos. 47-49):** Answer the questions based on the following information.
- There are six police check posts P, Q, R, S, T and U. U is 15 km north of check post S which is 25 km north-east of Q. P is 5 km west of check post T and 15 km south-west of R. Check posts P, Q and T are in a straight line. Check posts Q and T are 30 km apart.
47. If a jeep travels from T to U via P, Q and S, then what is the total distance covered by the jeep?
(1) 70 km. (2) 100 km.
(3) 120 km. (4) 90 km.
48. Which check post is farthest to the south-west from S?
(1) P (2) Q
(3) R (4) T

Direction Test

49. What is the distance from P to Q?
(1) 20 km. (2) 15 km.
(3) 25 km. (4) 10 km.
50. Pranshu turned left while cycling towards north. After covering a distance of 1 km, he again turned left and covered a distance of 2 km. Now he is standing 1 km west of his starting point. Tell how much total distance he covered in the north direction initially?
(1) 5 km. (2) 4 km.
(3) 8 km. (4) 2 km.
51. There are four paths. Akash has come from the east and wants to go to Akshardham. The path on the left takes him away from DLF Mall. The straight path leads only to Jantar Mantar. Find in which direction is Akshardham Temple?
(1) North (2) South
(3) East (4) West
52. Namrata is standing with her back to the bank of a river. An object floating freely in the water is moving from Namrata's left to her right. The river is flowing from west to east, so which way is Namrata facing?
(1) East (2) West
(3) North (4) South
53. A man is standing facing south. He turns 225° in anticlockwise direction and then 135° in clockwise direction. Tell which direction is his back facing?
(1) North (2) South
(3) East (4) West
54. Four villages Anantapur, Basantpur, Chamanpur and Dholpur are situated in a straight line. Dholpur is 10 km away from Basantpur. Anantapur is exactly in the middle of Dholpur and Chamanpur. Chamanpur is 2 km away from Basantpur than its distance from Dholpur. How far is Chamanpur situated from Basantpur?
(1) 4 km. (2) 8 km.
(3) 6 km. (4) 12 km.
55. In the above question, what will be the total distance from Basantpur to Anantapur?
(1) 10 km. (2) 12 km.
(3) 8 km. (4) None of these
56. It is 6 o'clock in the evening. If the minute hand turns 135° anticlockwise and the hour hand turns 45° anticlockwise, then what is the time in the clock (approximately)?
(1) 10 o'clock (2) 8 o'clock
(3) 2 o'clock (4) 4 o'clock 38 minutes
57. Akshay starts from a point and walks 10 km towards south, then he turns left and walks 8 km. He again turns left and walks 8 km. After that he again turns left and walks 12 km. In which direction is Akshay now from the starting point and how far is he?
(1) $5\sqrt{3}$ South-East (2) $2\sqrt{5}$ South-West
(3) $2\sqrt{5}$ North-West (4) $5\sqrt{3}$ North-West
58. The houses of A and B are situated opposite to each other on a road going in north-south direction. A lives towards the west. A comes out of his house and turns left and walks 5 km. Now turning right, he walks 5 km and reaches in front of D's house. B also does exactly the same and reaches in front of C's house. Which of the following statements is correct in this context?
(1) C and D live on the same street.
(2) C's house faces south.
(3) The distance between C & D's houses is less than 20 km.
(4) None of the above.
59. A person starts walking from a certain point in the north-east direction. After walking 500 m, he turns towards the south and walks 300 m. Where is he located after walking this distance?
(1) 400 m towards north from the starting point
(2) 100 m towards north-east from the starting point
(3) 400 m towards east from the starting point
(4) 100 m towards north from the starting point
60. Arnab is standing in the middle of a square field. He starts walking towards the north-east and then he moves to the right and reaches the end of the field. Then he starts moving to the right. Midway he again starts moving to the right. Halfway he moves to his left and reaches the new end. In which direction is Arnab at this time?
(1) South-west (2) North
(3) South (4) West
61. Kavitha wants to book a ticket to Rameswaram. She starts walking and covers 5 km to reach the booking office which is to the east of her house. From there she turns north towards the market and travels 3 km. From there she turns left towards her friend Jyoti's house which is 5 km away. Now she has to return home. How many km will she have to walk to reach her house?
(1) 8 km. (2) 3 km.
(3) 5 km. (4) 6 km.
62. P and Q are standing 20 km apart on a straight east-west road. P and Q start walking together towards east and west respectively and each covers a distance of 5 km. Then P turns to his left and walks 10 km. At the same speed Q turns to his right and walks 10 km. What is the distance between them?
(1) 10 km. (2) 30 km.
(3) 20 km. (4) 25 km.
63. Prabhat leaves home in the morning and walks 8 km in the direction of the sun. After that he turns right and walks 3 km. Now he again turns right and walks 2 km and then turns left and walks 1 km. After this he turns right and walks 1 km and then turns right and walks 4 km straight. How far is he from the starting point?
(1) 4 km. (2) 5 km.
(3) 6 km. (4) 2 km.