QUESTIONS

1. A cat runs 20m towards East, turns right and rurrs-10 m. She then turns right and runs 9m. She again turns left and runs 5 m and then turns left and runs 12 m. Finally she turns left and runs 6 m. Now which direction is the cat facing?
(a) East   (b) North   (c) West   (d) North-East

2. You go towards North, turn right, then right again and then go to the left. In which direction are you facing now?
(a) North   (b) South   (c) East   (d) West

3. From his house, Kabir went 15 km to the North. Then he turned West and covered 10 km. Then, he turned South and covered 5 km. Finally turning to East, he covered 10 km. In which direction is he from his house?
(a) East   (b) West   (c) North   (d) South

4. Village W is 20 km to the North of village X. Village Y is 18 km to the East of village X. Village Z is 12 km to the West of W. If Manu starts from village Y and goes to village Z via village X and W, then in which direction is he from his starting point ?
(a) North-West   (b) South   (c) North-East   (d) East

5. If X is to the South of Y and Z is to the East of Y, then in what direction is X with respect to Z?
(a) North-East   (b) North-West   (c) South-West   (d) South-East

6. A watch reads 4:30. If the minute hand points East, then in what direction will the hour hand point?
(a) North-East   (b) South-West   (c) North   (d) South

7. If South-East becomes North, North becomes South-West and so on, then what will North-West become?
(a) South-East   (b) North-West   (c) North   (d) South

8. The time on the watch is quarter to three. If the minute hand points to North-East, in which direction does the hour hand point?
(a) South-East   (b) South-West   (c) North-East   (d) North-West

9. Ankit, Tarun, Rohan and Sohan are friends. They play cards. Partner faces in opposite directions. Ankit and Tarun become partners. Sohan faces North. IfAnkit faces towards West, then who faces towards South?
(a) Tarun   (b) Rohan   (c) Sohan   (d) Data inadequate

10. Abhishek puts his timepiece on the table in such a way that at 6 p.m., hour hand points to North. In which direction the minute hand will point at 9.15 p.m.?
(a) South-East   (b) South   (c) North   (d) West

11. Ajay left home and cycled 10 km towards South, then turned right and cycled 5 km and then again turned right and cycled 10 km. After this he turned left and cycled 10 km. How many kilometres will he have to cycle to reach his home straight?
(a) 10 km   (b) 15 km   (c) 20 km   (d) 25 km

12. A man is facing towards West and turns through 45° clockwise, again 180° clockwise and then turns through 270° anticlockwise. In which direction is he facing now?
(a) West   (b) North-West   (c) South   (d) South-West

13. I am facing East. I turn 100° in the clockwise direction and then 145° in the anticlockwise direction. Which direction am I facing now?
(a) East   (b) North-East   (c) North   (d) South

14. A man is facing North-West. He turns 90° in the clockwise direction, then 180° in anti-clockwise direction and then another 90° in the anti-clockwise direction. Which direction is he facing now?
(a) South   (b) South-West   (c) West   (d) South-East

15. A girl leaves her house. She first walks 30 metres in North-West direction, 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 now?
(a) North-East   (b) North-West   (c) South-West   (d) South-East

16. A is 40 m south-west of B. C is 40 m south-east of B. Then, C is in which direction with respect to A?
(a) East   (b) West   (c) North-East   (d) South

17. A mountaineer starts from Camp A and proceeds East to Camp B which is 4 km away. From Camp B he proceeds to Camp C, 5 km to the South. From there, he returns and proceeds 12 km to Camp 'D' via Camps B and A. How far is he away from Camp A?

(a) 3 km   (b) 6 km   (c) 5 km   (d) 12 km

18. B is the South-West of A, C is to the East of B and South-East of A and D is to the North of C in line with B and A. In which direction of A is D located?

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

19. Mohit starting from a fixed point goes 15 m towards North and then after turning to his right he goes 15 m. Then he goes 10,15 and 15 metres after turning to his right each time. How far is he from his starting point?

(a) 20 metres   (b) 5 metres   (c) 10 metres   (d) 15 metres

20. Some boys are sitting in three rows all facing North such that S is in the middle row. P is just to the right of S. Q is just behind of P while R is in the North of S. In which direction of R is Q?

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

21. Kunal faces towards North. Turning to his right, he walks 25 metres. He then turns to his left and walks 30 metres. Next, he move 25 metres to his right. He then turns to his right again and walks 55 metres. Finally, he turns to the right and moves 40 metres. In which direction is he now from his starting point?

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

22. Rehan started walking straight towards North. He walked a distance of 15 metres and then took a left turn and walked a distance of 30 metres. Then he took a right turn and walked a distance of 15 metres again. In which direction Rehan is facing now?

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

23. Mohit is facing North-West. He turns 90° in the clockwise direction and then 135° in the anti-clockwise direction. Which direction is he facing now?

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

24. Ahika is standing to the North of Sumit. Priyanka is standing to East of Ahika. Puneet is to the West of Sumit. What is the position of Puneet with respect to Priyanka?

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

25. Ajay runs 30 m towards East, turns right and runs 20 m. He turns right and runs 8 m. He again turns left and runs 6 m and then turns left and runs 15 m. Finally he turns left and runs 7 m. In which direction is he facing now?

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

26. A boy first goes in South direction, then he turns towards left and travels for some distance. After that he turns right and moves certain distance. At last he turns left and travels again for some distance. Now, in which direction is he moving?

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

27. Sneha walked 20 m towards North. Then she turned right and walked 30 m. Then she turned right and walked 35 m. Then she turned left and walked 15 m. Finally she turned left and walked 15 m. In which direction is she from the starting point?

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

28. Riya walks 15 m towards West. She turned left and walks 20 m. She then turned left and walked 15 m. After this she turned to her right and walks 12 m. How far and in which direction is she now from the starting point?

(a) 32 m. South   (b) 47 m. East   (c) 42 m, North   (d) 42 m, South

29. After walking 3 km, Madhu turned right and covered a distance of 4 km, then turned towards left and covered a distance of 1 km. At the end, she was moving towards North. In which direction, did she start the journey?

(SOF IMO 2017)

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

30. A man walks 6 km to the East and then turns to the South and walks 5 km. Again he turns to the East and walks 6 km. Next, he turns northwards and walks 10 km. How far is he now from his starting point?

(SOF IMO 2017)

(a) 5 km   (b) 12 km   (c) 13 km   (d) 17 km

ANSWER - KEY									
1.	B	**2.**	C	**3.**	C	**4.**	A	**5.**	C
6.	A	**7.**	D	**8.**	B	**9.**	B	**10.**	D
11.	B	**12.**	D	**13.**	B	**14.**	D	**15.**	A
16.	A	**17.**	A	**18.**	D	**19.**	A	**20.**	D
21.	D	**22.**	C	**23.**	B	**24.**	B	**25.**	A
26.	C	**27.**	C	**28.**	A	**29.**	C	**30.**	C

1.   (b): The movements of the cat and the distances the cat covers from point to point are shown in the diagram. The cat finally comes at G. So, the cat finally is facing North.
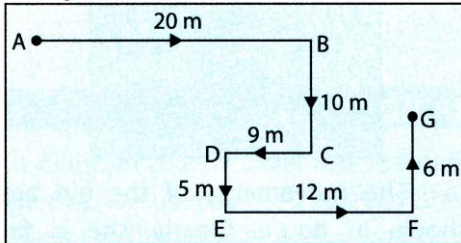

2.   (c): The movements indicated are as shown in figure. Thus, the final movement is in the direction indicated by DE, which is East.
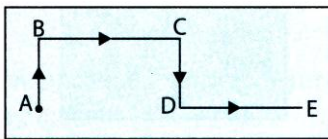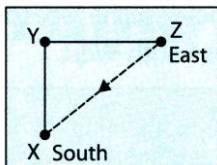

3.   (c): The movements of Kabir are shown in the diagram. He was finally at the position L which was to the North of the starting point A (House).
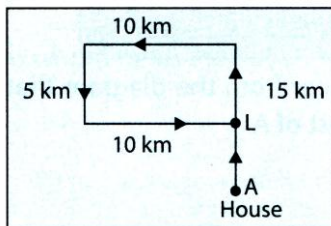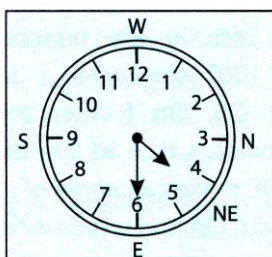

4.   (a); From the figure, it is clear that Y and Z denote the starting and finishing points, respectively. Z is to the North-West of point Y.
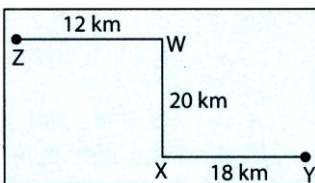
5.   (c): A diagram is made according to the directions given in the question. Clearly, X is in South-West of Z.


6.   (a) : From the diagram at 4:30, the hour hand is 45° behind the minute hand, so moving 45° anticlockwise from East, hour hand will point NE.

7. (d): South-East becoming North means all the directions are turning clockwise through an angle of 135°. Thus, North-West when moved clockwise through 135° will become South.

8. (b): The opposite direction to North-East is South-West.

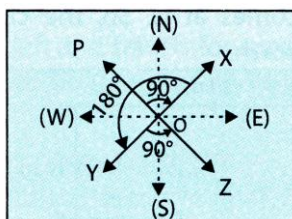**9.** (b) Not Available

10. (d) :
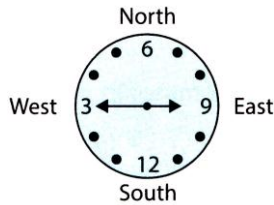
11. (b)
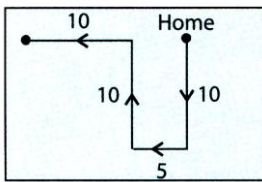
12. (d): As shown in the figure, the man initially faces in the direction OA. On moving 45° clockwise, the man faces in the direction OB. On further moving 180° clockwise, he faces in the direction OC. Finally on moving 270° anticlockwise, he faces in the direction OD, which is South-West
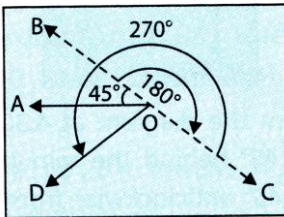

13. (b): As shown in figure, I initially face towards East, in the direction OA. On moving 100° clockwise, I face in the direction OB. On further moving 145° anticlockwise, I face in the direction OC. Clearly, OC makes an angle of (145° - 100°) i.e., 45° with OA and which is North-East.
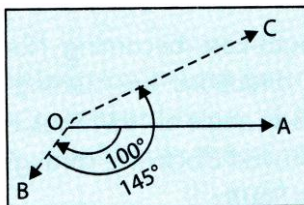

14. (d); The man initially faces in the direction OR On moving 90° clockwise, he faces in the direction OX. After this on moving 180° anticlockwise, he faces in the direction OY. Finally, on moving 90° anticlockwise, he faces in the direction OZ, which is South-East.

15. (a) The movements of the girl are as shown in figure. Clearly, she is finally moving in the direction DA i.e., North-East.
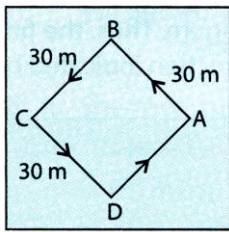
16. (a) :
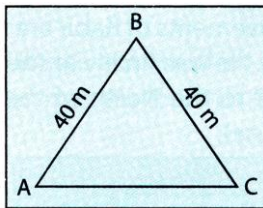
It is clear from the diagram that C lies to the East of A.

17.	(a) Not Available
18.	(d) Not Available
19.	(a) Not Available
20.	(d) Not Available
21.	(d) Not Available
22.	(c) Not Available
23.	(b) Not Available
24.	(b) Not Available
25.	(a) Not Available
26.	(c) Not Available
27.	(c) Not Available
28.	(a) Not Available
29.	(c) Not Available
30.	(c) Not Available