

# *Direction Sense*

## *Questions & Answers*

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## Direction Sense Questions With Answers

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1.

From a point, Sahil starts walking in east direction. After walking for 15 m he takes a right turn. Now he walks for 12 m before turning to his right again. Next he walks 5 m and again turns in same direction as before. He now walks for 20 m before stopping at a point. How far is this point from the point where Sahil started?

- A)  $4\sqrt{10}$  m
- B)  $3\sqrt{22}$  m
- C) 7 m
- D)  $2\sqrt{41}$  m
- E) 12 m

**View Answer**

**Option D**

Required distance =  $\sqrt{(10^2 + 8^2)} = 2\sqrt{41}$  m

2. Abhi and Asha start cycle race from point A. They both start in east direction. After cycling for 7 m, Abhi continues straight while Asha takes a left turn. They both cycle for 6 m before turning right and left directions respectively. Next

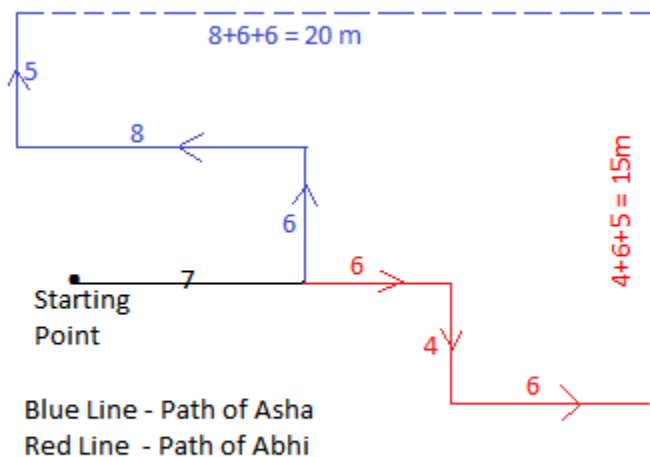
(1) Asha cycles for 8 m and takes a right turn. Now she cycles for 5 m before turning to right again.

(2) Abhi cycles for 4 m and takes a left turn. Now he cycles for 6m before turning to left again.

If both stop at these points, how much respective distance they have to travel to meet each other on their current paths?

- A) 10 m, 15 m
- B) 13 m, 17 m
- C) 15 m, 20 m
- D) 18 m, 24 m
- E) Cannot be determined

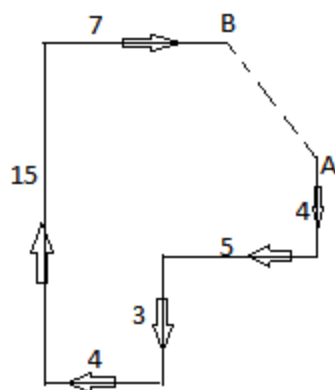
**View Answer**

**Option C****Solution:**

3. From point A, Swati started walking in south direction. She walked for 4 m and took a right turn. Next she walked 5 m and turned to her left. Next she walked for 3 m and turned to her right. Next she walked 4 m and turned to her right again. Next she walked 15 m and turned to her right again and stopped at point B after walking 7 m. Find distance AB.

- A)  $2\sqrt{22}\text{ m}$
- B)  $3\sqrt{21}\text{ m}$
- C)  $2\sqrt{19}\text{ m}$
- D)  $4\sqrt{17}\text{ m}$
- E) None of these

**View Answer****Option E****Solution:**



$$AB = \sqrt{(8^2 + 2^2)} = 2\sqrt{17} \text{ m}$$

4. Point P is 10 m west of point Q. Point R is 4 m north of point P. Point T is 3 m east of point S and point S is 5 m south of point Q. What is the direction of point R with respect to point T?

- A) South-east
- B) South
- C) North-east
- D) North-west
- E) West

**View Answer**

**Option D**

5. Anaya started from a point in some direction. After walking for some time, she turned to her right and continued walking. Now walking for some distance she turned to her left and after this finally to her right. If now she is walking in west direction, in which direction did she started her journey?

- A) North
- B) West
- C) East
- D) South
- E) East or west

**View Answer**

**Option D**

**Solution:**

Start from back and direct towards starting direction

She is walking in west and before that she turned to her right, so she must be travelling in south before turning right.

Now she was walking in south and before that she turned to her left, so she must be travelling in west before turning left.

Now she was walking in west and before that she turned to her right, so she must be travelling in south before turning right.

At last south direction.

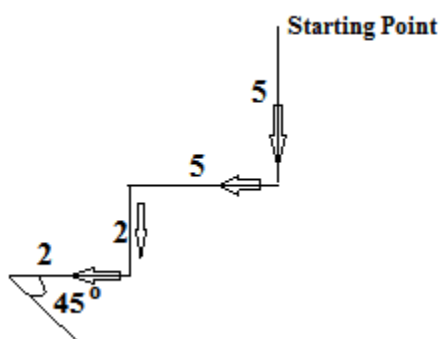
6. Sheetal started from point in South direction. After walking for 5 km she took a right turn. Now she walked another 5 km and took a left turn. Then after walking for 2 km she took a right turn. After covering more 2 km she turned  $45^\circ$  in clockwise direction. She is facing which direction now?

- A) South West
- B) South East
- C) North East
- D) North West
- E) None of these

**View Answer**

**Option B**

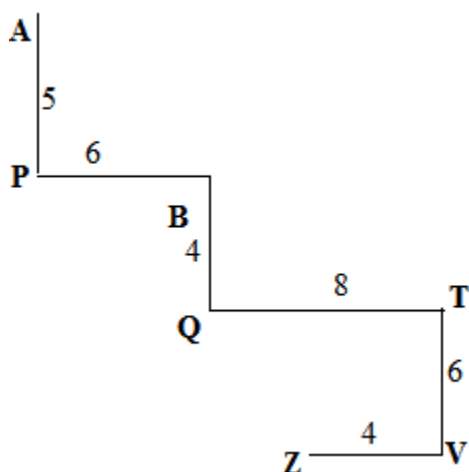
**Solution:**



**Directions (7-8):** Point P is 5 m south of point A. Point T is 8 m east of point Q. Point Z is 4 m west of point V. Point P is 6 m west of point B. Point V is 6 m south of point T. Point Q is 4 m south of point B.

7. Find distance AZ.

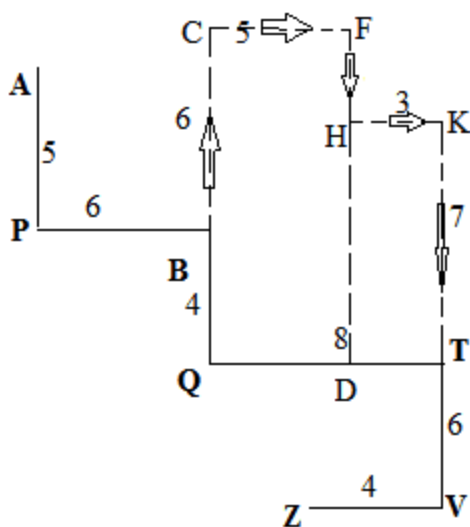
- A)  $5\sqrt{13}$  m
- B)  $6\sqrt{13}$  m
- C)  $4\sqrt{14}$  m
- D)  $7\sqrt{15}$  m
- E)  $3\sqrt{11}$  m

**View Answer****Option A****Solution:**Vertical distance =  $5 + 4 + 6 = 15$  mHorizontal distance =  $(PB) + (QT - CV) = 6 + (8 - 4) = 10$  mSo  $AZ = \sqrt{(15^2 + 10^2)} = 5\sqrt{13}$  m

8. A person starts from point B in north direction. Walks for 6 m and reaches point C, takes a right turn walks for 5 m reaches point F. Again he takes a right turn, walks for 3 m, reaches point H, now takes a left turn, reaches point K, now takes a final right turn to reach point T. Find the area enclosed by points B, Q, T, K, H, F and C.

- A)  $58\text{m}^2$
- B)  $65\text{m}^2$
- C)  $71\text{m}^2$
- D)  $76\text{m}^2$
- E) None of these

**View Answer****Option C****Solution:**



The area will be = Ar. of rectangle QCFD + Ar. of DHKT =  $10 \times 5 + 3 \times 7 = 71 \text{ m}^2$

**Directions (9-10):** Point A is 8 m west of point B. Point E is 2 m east of point F. Point G is 3 m east of point H. Point E is 3 m north of point of point D. Point C is 9 m west of point D. Point G is 9 m north of point F. Point C is 6 m south of point B.

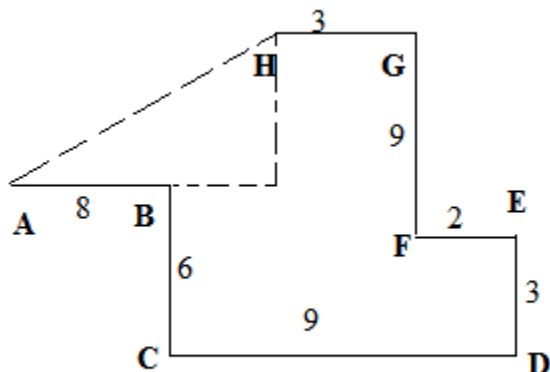
9. Find distance AH.

- A)  $7\sqrt{6}$  m
- B)  $7\sqrt{5}$  m
- C)  $6\sqrt{6}$  m
- D)  $6\sqrt{5}$  m
- E) None of these

**View Answer**

**Option D**

**Solution:**





$$\text{Vertical distance} = GF - (CB - ED) = 9 - (6-3) = 6$$

$$\text{Horizontal distance} = AB + (CD - (HG + FE)) = 8 + (9 - (3+2)) = 12$$

$$\text{Required distance AH} = \sqrt{6^2 + 12^2} = 6\sqrt{5} \text{ m}$$

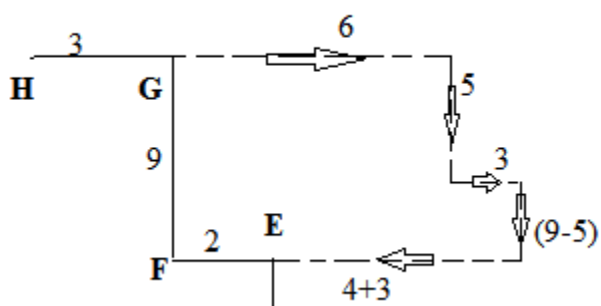
10. A person starts from point G in east direction. Walks for 6 m, takes a right turn, now walks for 5 m. Now he takes a left turn, walks for 3 m, then after two consecutive right turns he reaches point E. Find the distance travelled by him to reach point E.

- A) 27 m
- B) 25 m
- C) 23 m
- D) 24 m
- E) 28 m

**View Answer**

**Option B**

**Solution:**



$$6 + 5 + 3 + (9-5) + (3+4) = 25 \text{ m}$$

1.

A man walk 30 meters toward north direction, then turn to his left and walk 10 meter. Again he turn his left and walk 10 meter. How far is he from his initial point and in which direction?

- A)  $10\sqrt{5}$  m, south-west
- B)  $5\sqrt{5}$  m, north-west
- C)  $10\sqrt{2}$  m, south-west
- D)  $10\sqrt{5}$  m, north-west
- E) None of these

**View Answer**

**Option D**

2. Starting from point A, Sachin walk 20 km towards south direction. He turn left and walk 30 km, again he turn left and walk 20 km, and last he turn left and walk 40 km and reached at point B. If point C is 20 km south of point B, then C is which direction with respect

of point A?

- A) North-east
- B) North-west
- C) South-west
- D) South-east
- E) None of these

**View Answer**

**Option C**

3. B is 15 km east of point A. Point C is 15 km south of B and 7 km east of D is point C. 20 km north of point D is point E, and 13 km east of point G is point E. What is shortest distance between A and G, and also point G is which direction respect of point A?

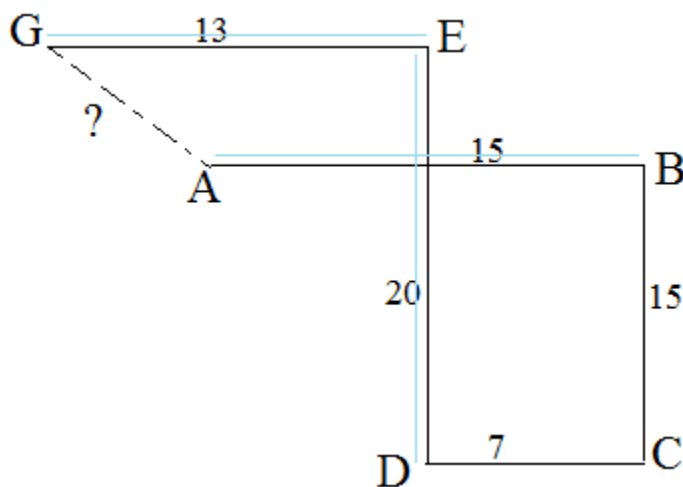
- A)  $2\sqrt{5}$  km, north-east
- B)  $5\sqrt{2}$  km, north-west
- C)  $4\sqrt{2}$  km, south-west
- D)  $5\sqrt{5}$  km, south-east
- E) None of these

**View Answer**

**Option B**

**Explanation:**

$$AG = \sqrt{(5^2 + 5^2)} = \sqrt{50} = 5\sqrt{2} \text{ km}$$



4. A man leave for his office from his house. After moving distance of 20 km, he turn south and walked 10 km then he turn his right and after walking further 35 km, again turned his right and move for 10 km, and at last he turned his right and walked 5 km to reach his office. He is facing east direction now. If straight distance between his house and office is 30 km, then he started walking in which direction before his first south turn?

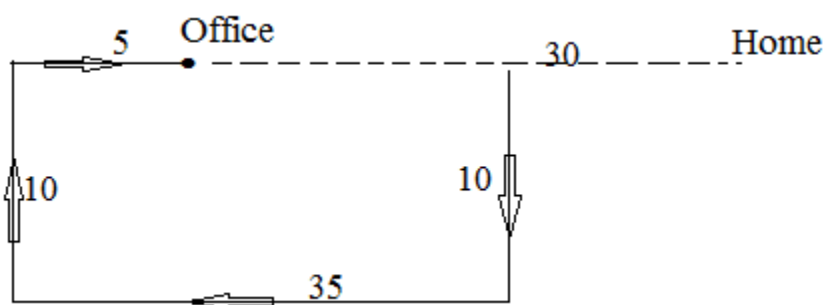
- A) East
- B) West
- C) North-west
- D) South-west
- E) None of these

**View Answer**

**Option B**

**Explanation:**

Only probable solution is the one drawn below. [If his house was 30 km west of office, he would have taken some other path to reach office] So before turning to south, he was travelling in west direction.



5. Point M is 10 km south of point N. Point O is 10 km east from point N. Point P is in west of point O at a distance of 22km. Point R is 5 km south of point P. what is shortest distance between point R and point N, also point O is which direction respect of point R?
- A) 13 km, north-west
  - B)  $12\sqrt{2}$  km, south-east
  - C) 13 km, north-east
  - D)  $13\sqrt{2}$  km, north-east
  - E) 14 km, south-west

**View Answer**

**Option C**

6. Village A is south of village B and north of village D, which is in east of village E. Village E is west of village C. Village F is between C and D anywhere. Village F is north west of village G which direction of village G respect of village B?
- A) North-east
  - B) North-west
  - C) South-east
  - D) South-west
  - E) Cannot be determined

**View Answer**

**Option E**

**Directions (7-10): Read the following information to answer the questions that follow:**

- (1)  $A+B$  = B is south of A,
- (2)  $A\&B$  = A is west of B,
- (3)  $A*B$  = B is east of A,
- (4)  $A-B$  = A is north of B,
- (5)  $A@B$  = A is north-west of B,
- (6)  $A\#B$  = B is south west of A,
- (7)  $A\%B$  = A is north East of B, and
- (8)  $A\$B$  = A is south east of B

7. Given that,  $A*B-C+D\&E\#F$ , C-F, Point A is which direction respect of point F?

- A) South-west
- B) North-east
- C) South
- D) North-west
- E) None of these

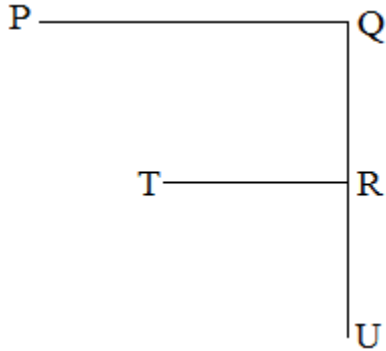
**View Answer**

**Option D**

8. Given that,  $P*Q-R$ ,  $P@T*R$ ,  $U\$T$ ,  $R+U$ , which three points are in a straight line?

- A) P, Q, T
- B) Q, R, U
- C) P, Q, U
- D) T, R, U
- E) None of these

**View Answer**

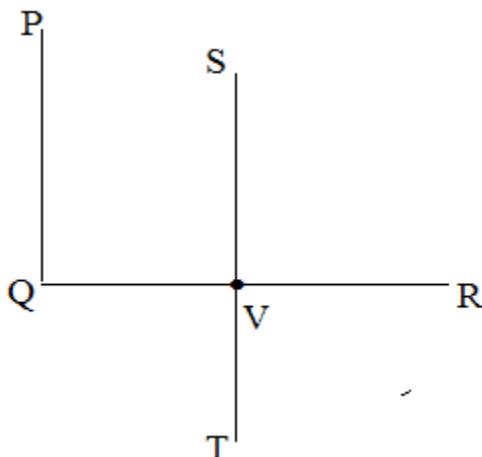
**Option B****Explanation:**

9. Given that,  $A \& B + D * E$ ,  $E \# C$ ,  $B + C$ , point C is which direction respect of point A?
- A) North-west
  - B) North-east
  - C) North
  - D) None of these
  - E) Cannot be determined

**View Answer****Option A**

10. Given that,  $P - Q * R$ ,  $R \$ S + T$ ,  $Q \& V$ ,  $S + V$ , which three points are in a straight line?
- A) Q, R, T
  - B) P, V, R
  - C) S, V, R
  - D) Q, V, R
  - E) None of the 3 points together are in a straight line

**View Answer**

**Option E****Explanation:**

**Directions (1-5):** Study the following information carefully and answer the questions that follow.

A country has the following types of traffic signals.

3 green lights = go at 60 kmph speed

2 green lights = go at 40 kmph speed

1 green light = go at 20 kmph speed

3 red lights = stop

2 red lights = turn left

1 red light = turn right

A person starts driving from a point in West direction and he encounters the following traffic signals:

Starting point – 1 green light;

After 15 minutes, 1st signal – 2 red & 2 green lights;

After 24 minutes, 2nd signal – 1 red & 3 green lights;

After 45 minutes, 3rd signal – 1 red & 2 green lights;

After 18 minutes, 4th signal – 3 red lights;

1. Find the total distance he covered up to the last signal.

A) 76 km

B) 78 km

C) 70 km

D) 75 km

E) 79 km

**View Answer****Option B**

Starting in West direction: 1 green light means 20 km/hr

So 15 minutes at 20km/hr, means covers  $15/60 \times 20 = 5$  km

Next, 2 red & 2 green lights, means turn left and 24 minutes at 40 km/hr

So now distance covered =  $24/60 * 40 = 16$  km

Now for next 45 minutes, 1 red & 3 green lights, means turned right and drove at 60 km/hr, so covered  $45/60 * 60 = 45$  Km

Next – 1 red & 2 green lights, turned right and 18 minutes at 40 km/hr

So covered =  $18/60 * 40 = 12$  km. Next 3 red lights so stopped

So total distance =  $5+16+45+12 = 78$  km

2. After passing the third signal if the person encounters fourth signal after half an hour, then what is his final position with respect to the starting point?

- A) 4 km to the south and 50 km to the east
- B) 55 km directly to the north-west
- C) 4 km to the north and 50 km to the west
- D) 4 km to the north and 45 km to the west
- E) None of these

### View Answer

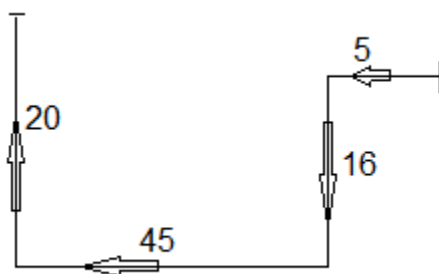
#### Option C

#### Solution:

So at last 1 red & 2 green lights, turned right and 30 minutes at 40 km/hr

So covered  $30/60 * 40 = 20$  km

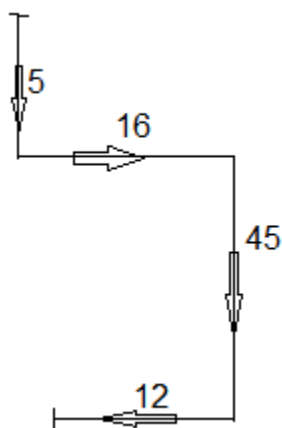
We get:



3. If instead of starting in West direction, the man starts in South direction, then what is his position with respect to the starting point?

- A) 50 km to the south and 4 km to the west
- B) 54 km directly to the north-west
- C) 50 km to the north and 4 km to the west
- D) 50 km to the south and 4 km to the east
- E) None of these

### View Answer

**Option D****Solution:**

4. If after the first signal,  
 2nd signal: 2 red and 2 green lights, and  
 3rd signal: 1 red and 3 green lights, then what is the distance covered up to the last signal?  
 A) 69 km  
 B) 60 km  
 C) 68 km  
 D) 67 km  
 E) 65 km

**View Answer****Option A****Solution:**

Starting in West direction: 1 green light means 20 km/hr

So 15 minutes at 20km/hr, means covers  $15/60 * 20 = 5$  km

Next, 2 red & 2 green lights, means turn left and 24 minutes at 40 km/hr

So now distance covered =  $24/60 * 40 = 16$  km

Now for next 45 minutes, 2 red & 2 green lights, means turned left and drove at 40 km/hr,  
 so covered  $45/60 * 40 = 30$  Km

Next – 1 red & 3 green lights, turned right and 18 minutes at 60 km/hr

So covered =  $18/60 * 60 = 18$  km. Next 3 red lights so stopped

So total distance =  $5+16+30+18 = 69$  km

5. If the person stops at 3rd signal, then what is his final position with respect to his starting position?  
 A) 50 km to the north-west  
 B) 52.5 km to the south-west  
 C) 52.5 km to the north-east



- D) 50.5 km to the south-west  
E) 50.5 km to the south-east

**View Answer**

**Option B**

**Solution:**

Starting in West direction: 1 green light means 20 km/hr

So 15 minutes at 20km/hr, means covers  $15/60 * 20 = 5$  km

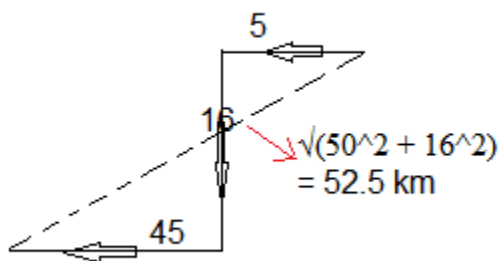
Next, 2 red & 2 green lights, means turn left and 24 minutes at 40 km/hr

So now distance covered =  $24/60 * 40 = 16$  km

Now for next 45 minutes, 1 red & 3 green lights, means turned right and drove at 60 km/hr, so covered  $45/60 * 60 = 45$  Km

Stopped here

We get:

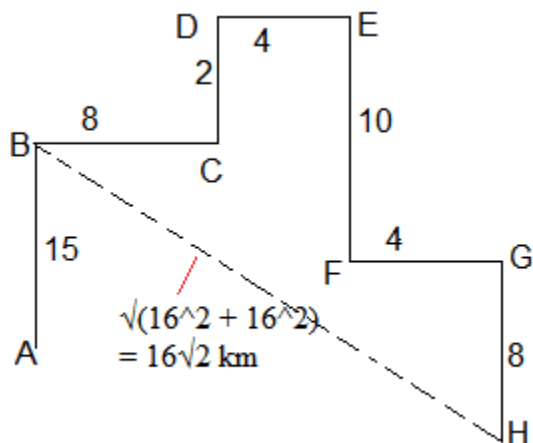


**Directions (6-8):** Point D is 2 km to the north of point C. Point G is 8 km to the north of point H. Point A is 15 km to the south of point B. Point C is 8 km to the east of point B. Point E is 10 km to the north of point F which is 4 km to the west of point G. Point D is 4 km to the west of point E.

6. Find shortest distance BH.

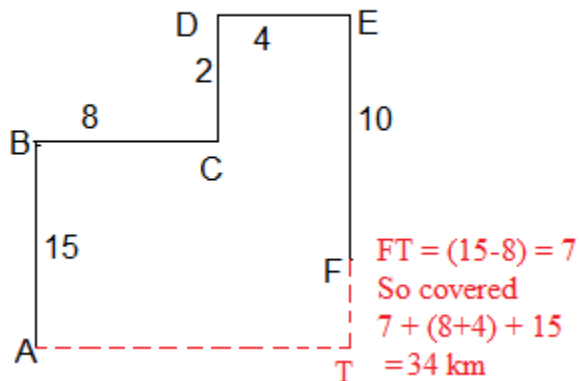
- A)  $16\sqrt{4}$  km  
B) 32 km  
C) 15 km  
D)  $16\sqrt{2}$  km  
E) None of these

**View Answer**

**Option D****Solution:**

7. If a person after taking 2 turns reaches to point B from point F via point A, then what is the distance that he covered?

- A) 32 km
- B) 34 km
- C) 30 km
- D) 35 km
- E) 36 km

**View Answer****Option B****Solution:****Only possibility:**

8. If a person starts from point H and reaches point S which is south of point C, then find distance CS + HS – EF.

- A) 12 km
- B) 13 km

- C) 15 km
- D) 14 km
- E) None of these

**View Answer**

**Option D**

**Solution:**

Point S is south of point C, so  $CS = 8+8 = 16$  km,  $HS = 4+4 = 8$  km and EF is 10 km  
So required answer =  $16 + 8 - 10 = 14$  km

9. Priya started from point A. after walking for some time, she turned to her right and continued walked, then after some time turned to her right again. Now walking for some distance she turned to her left and after this finally to her right. If now she is walking in west direction, in which direction did she started her journey from point A?
- A) West
  - B) East
  - C) South
  - D) North
  - E) Cannot be determined

**View Answer**

**Option B**

**Solution:**

For this, start from back:

She is walking in west and before that she turned to her right, so she must be travelling in south before turning right.

Now she was walking in south and before that she turned to her left, so she must be travelling in west before turning left.

Now she was walking in west and before that she turned to her right, so she must be travelling in south before turning right.

Now she was walking in south and before that she turned to her right, so she must be travelling in east before turning right.

At last east direction.

10. Tiya started from her home to office. She started in east direction. After walking for 4 km she turned to her left and walked 8 km, now she turned left and walked 2 km. After this she turned to right walked 4 km. Now after turning to her right she walked 13 km and reached office. Find the shortest distance between her office and home.
- A)  $3\sqrt{43}$  m
  - B)  $3\sqrt{41}$  km
  - C)  $4\sqrt{41}$  m
  - D)  $5\sqrt{38}$  m
  - E) None of these

**View Answer****Option B****Solution:**

$$\sqrt{15^2 + 12^2} = 3\sqrt{41} \text{ km}$$

Direction Sense Questions for SBI PO, IBPS PO/Clerk, IBPS RRB, NIACL, NICL, RBI Assistant, OICL, UIICL, BoB and other competitive exams.

1. Suman walks 10km towards the South. Turning to the left, she walks 20km and then moves to her right. After moving a distance of 20km, she turns to the right and walks 20km. Finally, she turns to the right and moves a distance of 10km. How far and in which direction is she from the starting point?
- A) 10km North  
B) 20km South  
C) 20km North  
D) 10km South  
E) None of these

**View Answer****Option B**

2. Manish walked 6km facing towards East, then he took a right turn and walked a distance of 9km. he then took a left turn and walked a distance of 6km. How far is he from the starting point?
- A) 15 km  
B) 21km  
C) 18km  
D) 15km  
E) None of these

**View Answer****Option A**

3. Rohit walked 30 metres towards South, took a left turn and walked 50 metres, again he took a left and walked 30 metres. How far is he and in which direction from the starting point?
- A) 80m south  
B) 50m west  
C) 130m east  
D) 50m east

E) None of these

**View Answer**  
**Option D**

4. Sharma walked 30 metres towards South, took a left turn and walked 15 metres. He then took a right turn and walked 20 metres. He again took a right turn and walked 15 metres. How far is he from the starting point?

- A) 95 metres
- B) 50 metres
- C) 70 metres
- D) Cannot be determined
- E) None of these

**View Answer**  
**Option B**

5. Ruhi is facing South. She turn right and walk 20 m. Then she turn right again and walk 10 m. Then she turn left and walk 10 m and then turning right and walk 20 m. Then she turn right again and walk 60 m. She is in which direction from her starting point?

- A) North
- B) North-west
- C) East
- D) North-east
- E) None of these

**View Answer**  
**Option D**

**Directions (6-7):** A is 20 m away from C in east direction. B is standing in south of A and is facing south direction and distance between A and B is 30m. Now to the right of B covering 32 m towards west, D is standing. D is eating burger standing on its position and facing north. After eating burger D starts moving towards south east direction covering 13 m and reaches to the position of E.

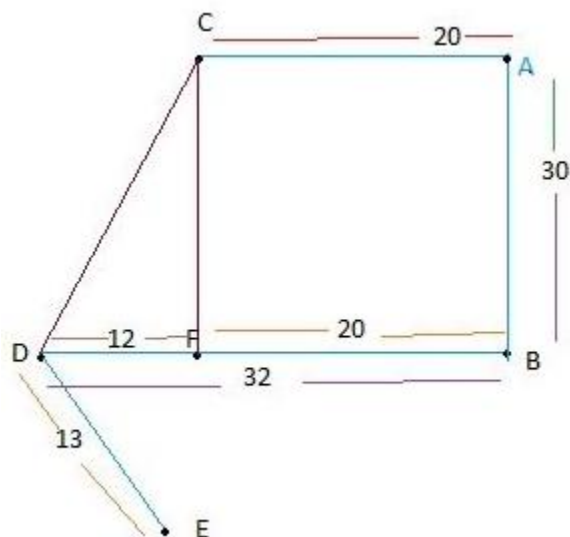
6. What is the distance between D and C and C is in which direction with respect to D?

- A) 31.2m, north-east
- B) 29.4m, north-west
- C) 32.3m, north-east

- D) 40.8m, north-west  
E) Cannot be determined

**View Answer**

**Option C**



7. In which direction C is with respect to B?

- A) South – West  
B) North – East  
C) South  
D) North – West  
E) None of these

**View Answer**

**Option D**

**Direction (8-10):** Read the given information carefully and answer below Question.-

There are 7 family members P, Q, R, S, T, U and V standing in ground in which there are 2 married couples.

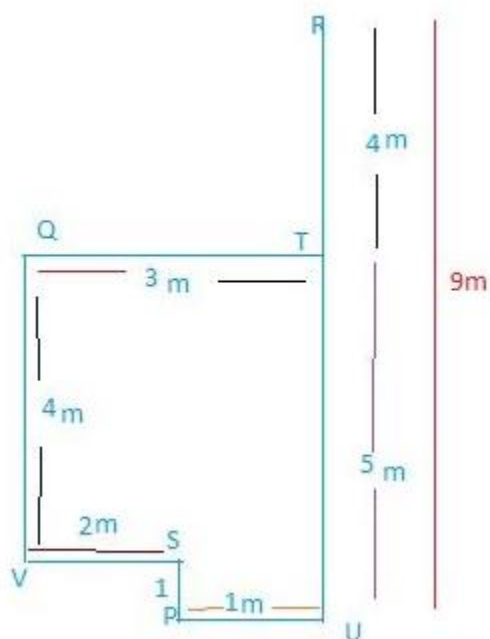
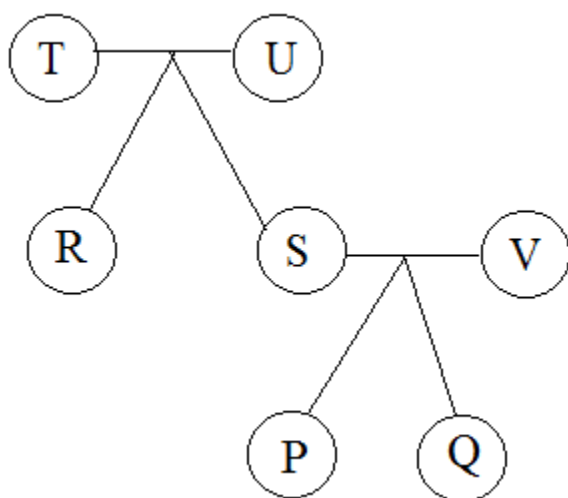
P is sister of Q who is maternal grandson of T. Maternal grandfather of Q is standing 3m to the right of Q who is facing north.

The father of S has 2 maternal grandchildren. V is facing north. V is standing 4m to the south of maternal grandson of U. S is 2m to the right of V.

P is 1m south of S and 1m west of U. R is sister-in-law of V and standing 9m to the north of her mother. V is father of P. U is a Female.

8. Maternal grand daughter is standing in which direction w.r.t his husband?
- A) south-east  
B) south  
C) north-west  
D) south-west  
E) None of these

**View Answer**  
**Option D**



9. What is direction and distance and relationship of S with respect to P?

- A) 1m north, Mother
- B) 1m south, Sister
- C) 1m north, Mather – in law
- D) 1m north, Daughter
- E) None of these.

**View Answer**

**Option A**

10. What is a minimum distance between V and His father – in – Law?

- A) 3m
- B) 2m
- C) 4m
- D) 6m
- E) None of these

**View Answer**

**Option E**

1. A person starts from point T in east direction. Walks 6 m and turns right. Next walks 4 m and turns left. Next walks 3m and turns right. Now cycles for 8 km and stops. Find his distance from T.

- A) 17 m
- B)  $2\sqrt{31}$  m
- C) 15 m
- D)  $7\sqrt{21}$  m
- E) 12 m

**View Answer**

**Option C**

**Solution:**

$$\text{Distance} = \sqrt{[(6+3)^2 + (4+8)^2]} = 15 \text{ m}$$

**Directions (2-4): Point A is 8 m north of point B. Point B is 10 m west of point C. Point C is 11 m north of point D. Point F is 4 m north of point E which is 6m west of point D.**

2. A person starts from point F, reaches point G, then takes a left and then a right turn to reach point B. Find FG + BC.

- A) 13 km



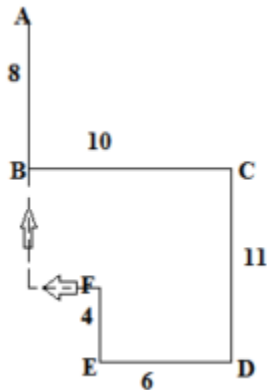
- B) 12 km  
 C) 15 km  
 D) 14 km  
 E) None of these

**View Answer**

**Option D**

**Solution:**

Since he takes a left and a right turn to reach B, so the figure is like:



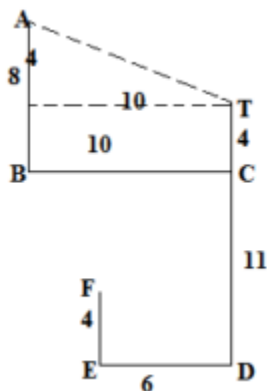
So  $FG = 10 - 6 = 4\text{m}$  and then  $FG + BC = 4 + 10$

3. Point T is 5m north of point C. Find AT.
- A) 29 m  
 B)  $2\sqrt{29}$  m  
 C)  $5\sqrt{26}$  m  
 D)  $29\sqrt{2}$  m  
 E) None of these

**View Answer**

**Option B**

**Solution:**



$$AT = \sqrt{(10^2 + 4^2)} = 2\sqrt{29} \text{ m}$$

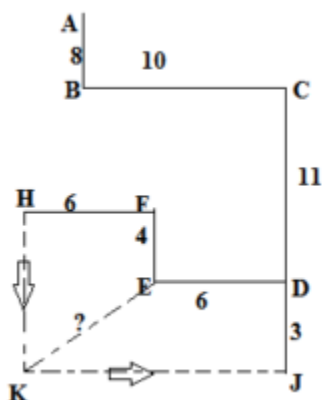
4. Point H is 6 m west of point F. Point J is 3 m south of point D. A person starts from point H in south direction, reaches a point K, takes a left turn and reaches point J. Find KE.

- A) 15 m
- B)  $3\sqrt{10}$  m
- C)  $2\sqrt{5}$  m
- D)  $3\sqrt{2}$  m
- E)  $3\sqrt{5}$  m

**View Answer**

**Option E**

**Solution:** We get figure as:

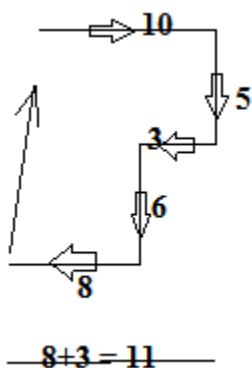


$$\text{So } KE = \sqrt{(6^2 + 3^2)} = 3\sqrt{5} \text{ m}$$

5. A person starts from a point in east direction. He walks 10 m and takes a right turn. Now he walks 5m and again takes a right turn. Next he walks 3 m and takes a left turn. Now he walks 6 m and takes a right turn. He finally stops after walking 8m. In which direction is the starting point with respect to the ending point?

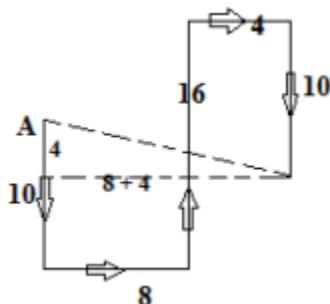
- A) South-east
- B) South-west
- C) North
- D) North-east
- E) None of these

**View Answer**

**Option D****Solution:**

6. A person starts from point A, walks 10 m in south direction. Now he takes a left turn and walks 8m before turning left again. Next he walks 16 m and takes a right turn. Now he walks 4 m and takes a right turn again. He stops after walking 10 m. Find his distance from point A.

- A) 20 km
- B)  $3\sqrt{10}$  km
- C)  $4\sqrt{10}$  km
- D)  $4\sqrt{5}$  km
- E) 10 km

**View Answer****Option C****Solution:**

$$\text{Required distance} = \sqrt{((8+4)^2 + 4^2)} = 4\sqrt{10} \text{ km}$$

**Directions (7-9):** Point A is 10 m west of point B. Point B is 6 m south of point C and also 7 m north of point D. Point E is 4 m west of point D. Point C is 6 m east of point F.

7. A person starts from point F, walks 2 m in south direction and reaches a point T. He takes a right turn and reaches point K, north of point A. Find  $TK + BD - DE$ .

- A) 8 m
- B) 7 m
- C) 9 m
- D) 6 m
- E) 5 m

**View Answer**

**Option B**

**Solution:**

$$TK = 10 - 6 = 4 \text{ m}$$

$$\text{So } TK + BD - DE = 4 + 7 - 4$$

8. Find distance AE.

- A)  $7\sqrt{5}$  m
- B) 8 m
- C) 10 m
- D)  $8\sqrt{3}$  m
- E)  $5\sqrt{8}$  m

**View Answer**

**Option A**

**Solution:**

$$AE = \sqrt{((10+4)^2 + 7^2)} = 4\sqrt{10} \text{ km}$$

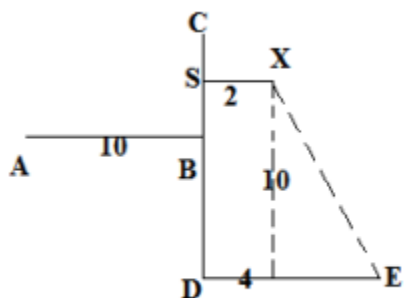
9. A person starts from point D, walks 10 m in north direction and reaches point S. He takes a right turn, walks 2 m and reaches point X. Find distance XE.

- A)  $2\sqrt{24}$  m
- B)  $5\sqrt{13}$  m
- C)  $2\sqrt{13}$  m
- D)  $3\sqrt{29}$  m
- E)  $2\sqrt{26}$  m

**View Answer**

**Option E**

**Solution:**



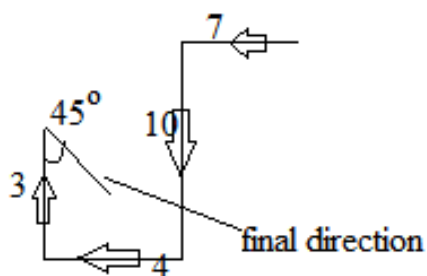
$$XE = \sqrt{(10^2 + 2^2)} = 2\sqrt{26} \text{ m}$$

10. A person starts his journey by walking in West direction. He walks for 7 m and takes a left turn. Next after travelling a distance of 10 m, he turned to his right and travelled 4 m. Next he walks for 3 m towards North direction and turns  $45^\circ$  in clockwise direction. In what direction is he travelling now?

- A) South-west
- B) North-east
- C) North-west
- D) South-east
- E) East

**View Answer**

**Option D**



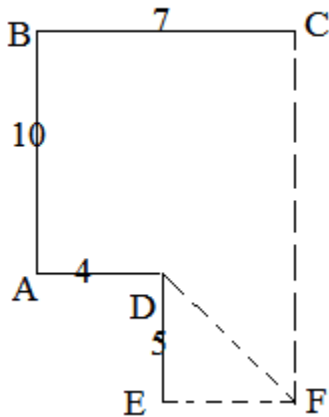
Directions (1-2): Point A is 10 km south of point B. Point C is 7 km east of point B. Point A is 4 km west of point D. Point D is 5 km north of point E.

1. A person starts from point E, goes to point F in east direction. After that he takes a left turn and reaches point C. Find distance DF.
  - A) 17 km
  - B)  $\sqrt{34}$  km
  - C)  $5\sqrt{31}$  km
  - D)  $7\sqrt{24}$  km

E)  $2\sqrt{34}$  km

**View Answer**

**Option B**

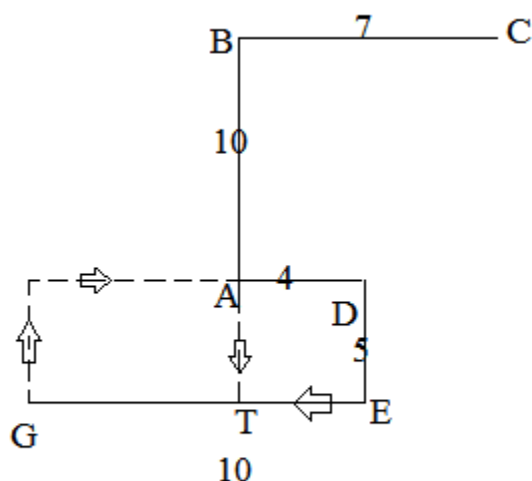


After left turn he reaches point C, this means point F is in south of point C. So  $EF = 3$  km  
so  $DF = \sqrt{(DE^2 + EF^2)} = \sqrt{(5^2 + 3^2)} = \sqrt{34}$  km

2. A person starts from point G which is 10 km west of point E. Then he goes towards north and after taking a right turn he reaches point A. Now he turns to his right and reaches a point T on line EG. Find distance GT.

- A) 8 km
- B) 12 km
- C) 5 km
- D) 6 km
- E) None of these

**View Answer**

**Option D**

$$GT = 10 - 4 = 6\text{km}$$

3. A person starts from a point and goes 6 km in north direction. Now he takes a right turn and moves 7 km. Next he takes a left turn and moves 10 km. Next he turns right and moves 5 km. Finally he turns right and moves 12 km to reach his destination. Find the distance from his starting point.

- A) 12 km
- B)  $4\sqrt{10}$  km
- C)  $5\sqrt{5}$  km
- D)  $6\sqrt{2}$  km
- E) None of these

**View Answer****Option B**

Required distance is  $\sqrt{(12^2 + 4^2)} = 4\sqrt{10}$  km

Directions (4-5): Point B is 9 km east of point A. Point T is 6 km south of point B. Point S is 4 km west of point T. Point T is 8 km west of point G.

4. A person starts from point S, walks 3 km towards south and reaches point D. Next he takes two right turns and reaches point A. How much distance has he travelled?

- A) 18 km
- B) 20 km
- C) 17 km
- D) 14 km

E) 11 km

**View Answer**

**Option A**

Let after first right turn he is at point K. Since after turn from K he reaches at point A so point K is in south of point A. So he has travelled  $SD + DK + KA = 3 + (9-4) + (3+6) = 17$  km

5. A person is standing on midpoint of line TG. Find his shortest distance from point B?

A)  $3\sqrt{15}$  km

B)  $5\sqrt{14}$  km

C)  $6\sqrt{3}$  km

D)  $2\sqrt{13}$  km

E) None of these

**View Answer**

**Option D**

Let that point be Y. So Midpoint of TG means  $TY = 8/2 = 4$  km

So  $BY = \sqrt{(BT^2 + TY^2)} = \sqrt{(6^2 + 4^2)} = 2\sqrt{13}$  km

6. A person starts from a point in east direction. He walks 6 km and turns to his left. Next he walks 4 km and turns to his left again. Next he walks 2 km and turns towards south direction. He stops after walking 8 km. Find his distance from the starting point.

A) 16 km

B)  $3\sqrt{2}$  km

C)  $4\sqrt{2}$  km

D)  $4\sqrt{4}$  km

E) 8 km

**View Answer**

**Option C**

Required distance =  $\sqrt{(4^2 + 4^2)} = 4\sqrt{2}$  km

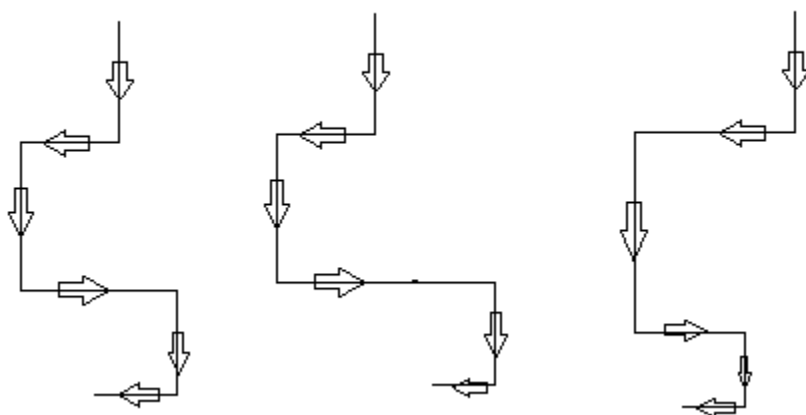


7. From a point, a person starts walking in south direction. He takes a right turn, then taken 2 lefts turns and then takes two right turns and stops after walking 3 km. In which direction he is standing with respect to the starting point?

- A) West
- B) East
- C) North
- D) South
- E) Cannot be determined

**View Answer**

**Option E**



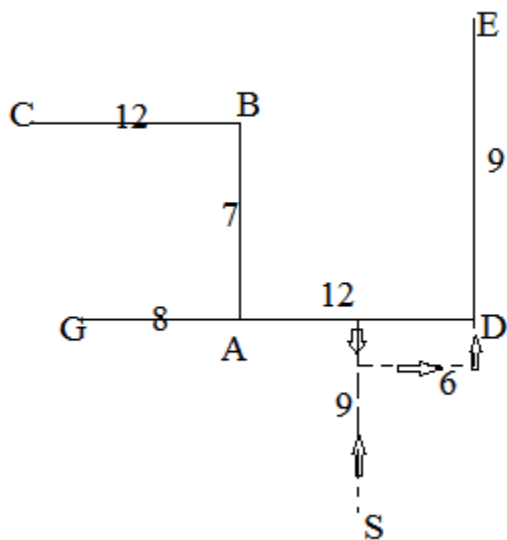
Since we do not know that how much distances has he travelled after each turn, his position with respect to starting point cannot be determined. There can be many cases as:

Directions (8-10): Point B is 7 km north of point A. Point A is 8 km east of point G. Point B is 12 km east of point C. Point E is 9 km north of point D which is 12 km east of point A.

8. A person starts from point S, walks 9 km and reaches point T mid-way between points A and D. Then he goes 2 km towards south, takes 2 left turns and reaches point D. How much distance has he travelled?

- A) 15 km
- B) 18 km
- C) 20 km
- D) 19 km
- E) 21 km

**View Answer**

**Option D**

He has travelled =  $9 + 2 + 6 + 2 = 19$  km

9. A person starts from point D in south direction. He walks 5 km and reaches point L and then turns towards west and reaches point K which is south of point C. Find distance  $LK - BC$ .

- A) 13 km
- B) 12 km
- C) 24 km
- D) 16 km
- E) Cannot be determined

**View Answer****Option B**

$LK = 12 + 12 = 24$  km.  $BC = 12$  km, so required ans =  $24 - 12 = 12$  km

10. If point M is 4 km north of point G and point O is south of point G such that point G is mid way between points M and N. Find distance  $MN + AE$ .

- A) 23 km
- B) 25 km
- C) 19 km
- D) Cannot be determined
- E) None of these

**View Answer****Option A**

$$MN = 4 + 4 = 8 \text{ km}$$

$$AE = \sqrt{(AD^2 + DE^2)} = \sqrt{(12^2 + 9^2)} = 15 \text{ km}$$

$$\text{so required ans} = 8 + 15 = 23 \text{ km}$$

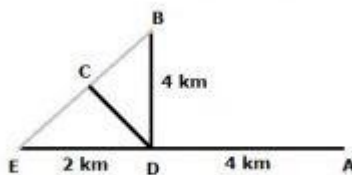
**Direction: Q(1-5)** There are 5 friends A, B, C, D and E standing randomly. B is to the northeast of E. D is 2km to the east of E, who is 6km to the west of A. C is to the northwest of D and in the line of EB. D is 4km the south of B.

1. In which direction is C with respect to A ?

- A.South west
- B.South east
- C.Northeast
- D.Northwest
- E.None of these

**Answer & Explanation**

Answer – D.Northwest

**Explanation :**

2. In which direction is A with respect to B ?

- A.Southeast
- B.Southwest
- C.Northwest
- D.Northeast
- E.None of these

**Answer**

Answer – A.Southeast

3. What is the distance between D and A ?

- A.5km
- B.4km
- C.6km
- D.3km
- E.None of these

**Answer**

Answer – B. 4km

4. What is the shortest distance between B and A?

A.  $5\sqrt{7}$ kmB.  $4\sqrt{2}$ kmC.  $6\sqrt{2}$ kmD.  $3\sqrt{5}$ km

E. None of these

**Answer & Explanation**Answer – B.  $4\sqrt{2}$ km**Explanation :**

$$X^2 = 4^2 + 4^2$$

$$X = 4\sqrt{2}$$

5. What is the shortest distance between B and E?

A.  $2\sqrt{7}$ kmB.  $5\sqrt{2}$ kmC.  $7\sqrt{2}$ kmD.  $2\sqrt{5}$ km

E. None of these

**Answer & Explanation**Answer – D.  $2\sqrt{5}$ km**Explanation :**

$$X^2 = 4^2 + 2^2$$

$$X = 2\sqrt{5}$$

**Directions : Q(6-7) –** Bala walked 25km towards west, took a left turn and walked 15km. He again took a left turn and walked 30km. He then took a right turn and stopped.

6. Now he was facing which direction ?

A. West

B. East

C. South

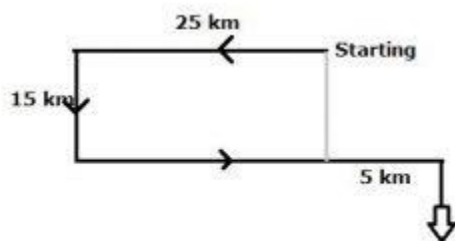
D. North

E. None of these

**Answer & Explanation**

Answer – C.South

Explanation :



7. Instead of turning right at the end if he took left and walked 20km, what is the shortest distance to his starting point?

- A.  $3\sqrt{7}$  km
- B.  $2\sqrt{5}$  km
- C.  $7\sqrt{2}$  km
- D.  $5\sqrt{2}$  km
- E. None of these

**Answer & Explanation**

Answer – D.  $5\sqrt{2}$  km

Explanation :

$$X^2 = 5^2 + 5^2$$

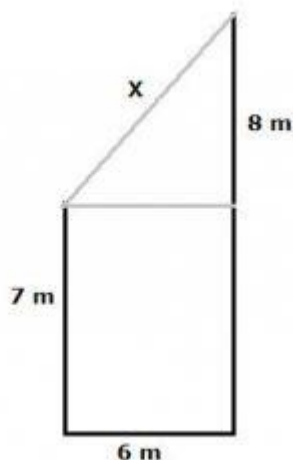
$$X = \sqrt{50} = 5\sqrt{2}$$

8. Raghav starts walking in south direction and walks a distance of 7 meters. Now he takes a left turn and walk 6m. Again he takes a left turn and walk 15m and reached a point P. Find the distance between starting point and P and in which direction is the person from the initial point.

- A. 10m, south east
- B. 10m, north east
- C. 20m, north west
- D. 20m, south west
- E. None of these

**Answer & Explanation**

Answer – B.10m, north east



**Explanation :**

$$X^2 = 6^2 + 8^2$$

$$X = \sqrt{100} = 10$$

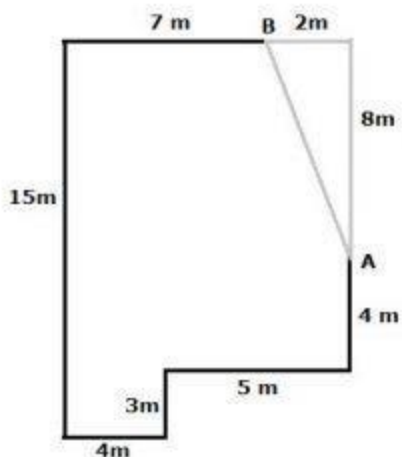
9. Dheepthi started from point A in south direction. After walking for 4 m she turned to her right and walked 5 m. Now she turned to her left and walked 3 m after which she turned to her right. Now she walked 4 m and turned to her right again and walked 15 m. Now finally she turned to her right and after walking for 7 m, she stopped at point B. What is the distance AB?

- A.  $2\sqrt{34}$  m
- B. 34 m
- C.  $3\sqrt{17}$  m
- D.  $2\sqrt{17}$  m
- E. None of these

**Answer & Explanation**

Answer – D.  $2\sqrt{17}$  m

**Explanation :**



$$X^2 = 8^2 + 2^2$$

$$X = \sqrt{68} = 2\sqrt{17}$$

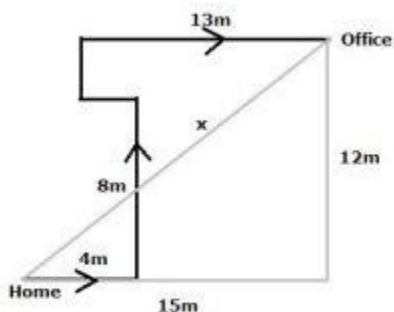
10. Riya started from her home to office. She started in east direction. After walking for 4 m she turned to her left and walked 8 m, now she turned left and walked 2 m. After this she turned to right walked 4 m. Now after turning to her right she walked 13 m and reached office. Find the shortest distance between her office and home.

- A. 87 m
- B.  $9\sqrt{41}$  m
- C. 26 m
- D.  $3\sqrt{41}$  m
- E. None of these

#### Answer & Explanation

Answer – D.  $3\sqrt{41}$  m

Explanation :



$$X^2 = 15^2 + 12^2$$

$$X = \sqrt{369} = 3\sqrt{41}$$

•

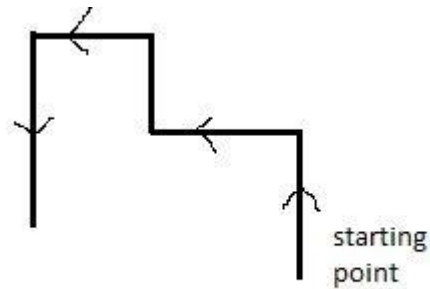
Riya starts walking in the north direction and after walking some distance she took a left

**turn followed by a right turn. After that she took two consecutive left turn, now she is walking in which direction?**

- a) south
- b) north
- c) east
- d) west
- e) None of these

### Answer & Explanation

Answer – a) south



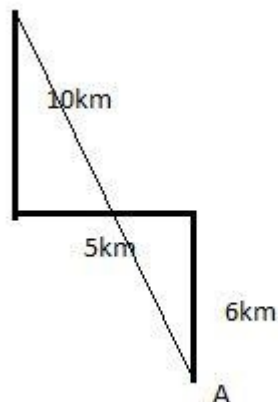
**Explanation :**

- **Rahul walks a distance of 10 km towards south, then he turn to his left and walks 5 km. From here he took a right turn and walks 6 km and stops at a point A. Find the distance between the starting point and A and A is in which direction with respect to starting point.**

- a) 17km, north east  
b) 17km south east  
c) 17km north west  
d) 17km south west  
e) None of these

### Answer & Explanation

**Answer – b) 17km south east**



**Explanation :**

(approx.)

$$\text{Distance} = 16^2 + 5^2 = \sqrt{281} = 17\text{km}$$

- Neha travelled from a point X straight to point Y at a distance of 50 meters. He turned to his right and walks 50 meter more, then again turned right and walks 60 meter. Finally, he turned to right and walks 50 meters. How far is he from the starting point?

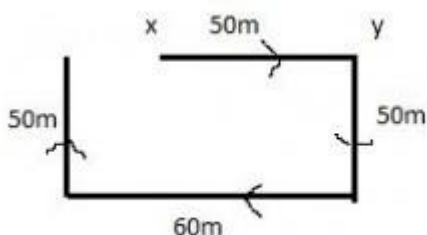
- a) 10



- b) 20
- c) 30
- d) 40
- e) None of these

**Answer & Explanation**

Answer – a) 10

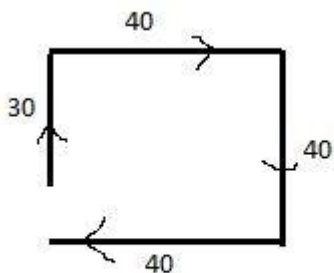
**Explanation :**

• Nishant walks 30 meter in the north direction, after that he took a right turn and walks 40 meter. After that he took a right turn and walks 40 meter more and finally he took a right turn and stop after walking 40 meter. Find the distance of nishant from the initial position?

- a) 5
- b) 10
- c) 15
- d) 20
- e) None of these

**Answer & Explanation**

Answer – b) 10

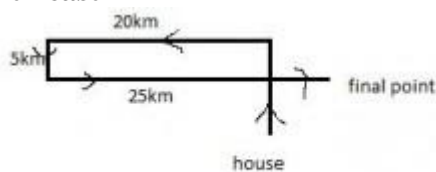
**Explanation :**

• From his house, Ram went 15 kms to the north. Then he turns west and covered 20 km. Then he turned south and covered 5 km. Finally turning to east, he covered 25 km. In which direction is he from his house?

- a) north west
- b) north east
- c) south east
- d) south west
- e) None of these

**Answer & Explanation**

Answer – b) north east



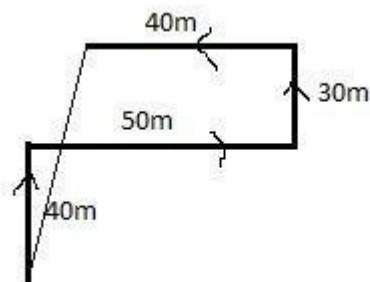
**Explanation :**

• A man walks 40 meters towards north. Then turning to his right, he walks 50 meter. Then turning to his left, he walks 30 meters. Again he turns to his left and walks 40 meters. How far is he from initial position?

- a)  $40\sqrt{2}$
- b)  $50\sqrt{2}$
- c)  $60\sqrt{2}$
- d)  $50\sqrt{3}$
- e) None of these

**Answer & Explanation**

Answer – b)  $50\sqrt{2}$



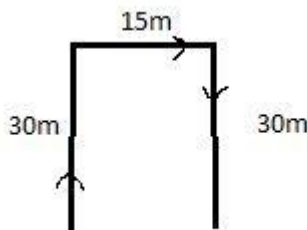
**Explanation :**  
=  $50\sqrt{2}$

$$\text{Distance} = \sqrt{(70^2 + 10^2)} = \sqrt{5000}$$

• Riya goes 30 km towards North from a fixed point, then after turning to her right she goes 15 km. After this she goes 30 km after turning to her right. How far and in what direction is she from her starting point?

- a) 10m east
- b) 15m east
- c) 20m east
- d) 25m east
- e) None of these

**Answer & Explanation**



Answer – b) 15m east

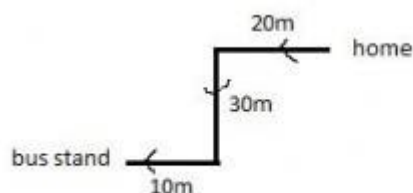
**Explanation :**  
• A person starts walking from his home in west direction and after walking 20 meter he took a left turn and walk 30 meters. Now he took a right turn and walks 10 meter to reach

the bus stand. Find the distance between home and stand

- a)  $20\sqrt{2}$
- b)  $30\sqrt{2}$
- c)  $40\sqrt{2}$
- d)  $50\sqrt{2}$
- e) None of these

#### Answer & Explanation

Answer – b)  $30\sqrt{2}$



Explanation :

$$\text{Distance} = \sqrt{(30^2 + 30^2)} = 30\sqrt{2}$$

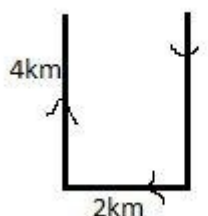
m

• A girl rides her bicycle southwards, then turned right and rode 2 km and again turned right and rode 4 km. She found herself exactly 2 km east from the starting point. How far did she ride southwards initially?

- a) 2 km
- b) 3 km
- c) 4 km
- d) 6 km
- e) None of these

#### Answer & Explanation

Answer – c) 4 km



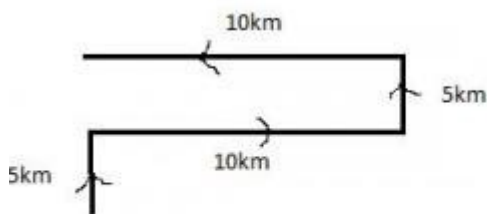
Explanation :

• One day raj left home and walked 5 km northwards, turned right and walked for 10km and turned left and walked 5 km more and finally turned left and walked 10km. How many kilometres will he have to walk to reach his home straight?

- a) 15 km
- b) 10 km
- c) 5 km
- d) 20 km
- e) None of these

#### Answer & Explanation

Answer – b) 10 km



Explanation :

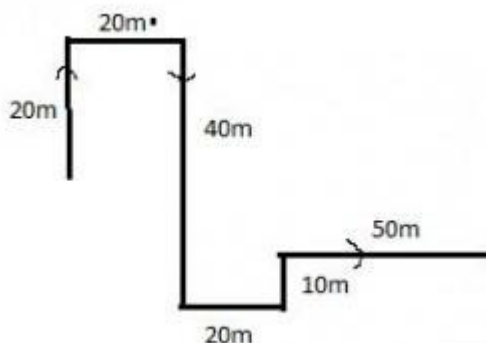
•

A person starts walking from a point A in north direction and after covering 20 meter, he took a right turn and walk 20 meter more. After that he turns to his right and walks 40 meter before turning to left and walks 20 meters more. After that he took a left turn and walks 10 meter and finally took a right turn and walk 50 meters and stopped at point B. Now he is facing which direction?

- a) east
- b) west
- c) north
- d) south
- e) None of these

**Answer & Explanation**

Answer – a) east



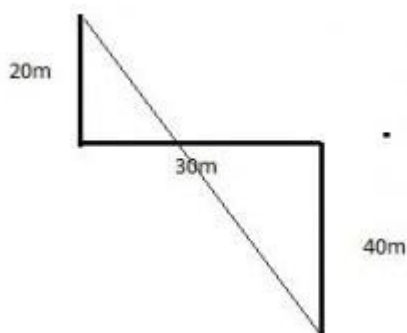
Explanation :

• A person starts walking in south and after walking 20 meters he took a left turn and walks 30 meter and finally took a right turn and stopped after walking 40 meters. Find the distance between his initial position to final position?

- a)  $20\sqrt{5}$
- b)  $30\sqrt{5}$
- c)  $40\sqrt{5}$
- d)  $55\sqrt{5}$
- e) None of these

**Answer & Explanation**

Answer – b)  $30\sqrt{5}$



**Explanation :**

$$\sqrt{4500} = 30\sqrt{5}$$

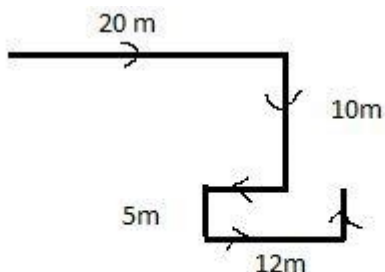
$$\text{distance} = 60^2 + 30^2 =$$

• A dog run 20m towards East and Turns to right runs 10m and turns to right runs 10m and again turns to left run 5m and then turns to left runs 12m and finally turns to left and runs 5m .Now which direction cat facing?

- a) south
- b) north
- c) east
- d) west
- e) None of these

**Answer & Explanation**

Answer –b) north



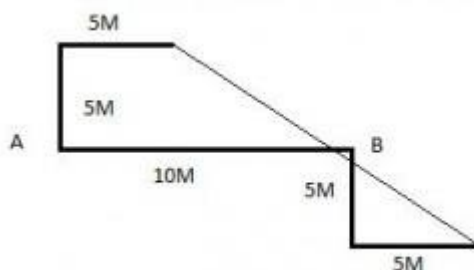
**Explanation :**

• Two persons A and B are at a distance of 10 meters from each other in west-east direction respectively. A starts walking in north and B starts walking south and move 5 meter respectively. Then A and B takes right and left turn respectively and stopped after travelling 5 meter each. Find the distance between both of them

- a)  $10\sqrt{3}$
- b)  $10\sqrt{5}$
- c)  $10\sqrt{2}$
- d)  $10\sqrt{7}$
- e) None of these

**Answer & Explanation**

Answer – c)  $10\sqrt{2}$



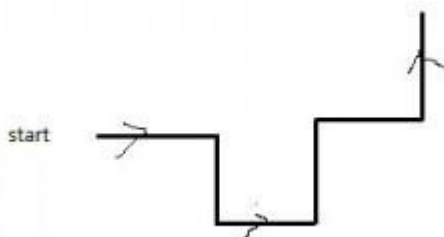
**Explanation :**

• Amit starts walking in east direction and after travelling some distance he took a right turn and then a left turn followed by another left turn. Now he again took a right turn and finally took a left turn. In which direction is Amit walking.

- a) south
- b) north
- c) east
- d) west
- e) None of these

**Answer & Explanation**

Answer – b) north



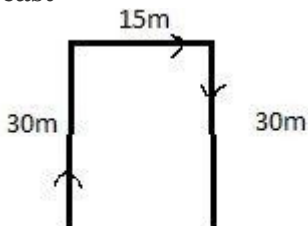
**Explanation :**

• Rina goes 30 km towards North from a fixed point, then after turning to her right she goes 15 km. After this she goes 30 km after turning to her right. How far and in what direction is she from her starting point?

- a) 10m east
- b) 15m east
- c) 20m east
- d) 25m east
- e) None of these

**Answer & Explanation**

Answer – b) 15m east



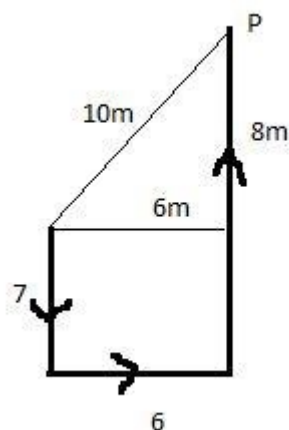
**Explanation :**

• A person starts walking in south direction and walks a distance of 7 meters. Now he took a left turn and walk 6m. Again he takes a left turn and walk 15m and reached a point P. Find the distance between starting point and P and in which direction is the person from the initial point.

- a) 10m, south east
- b) 10m North West
- c) 10m, north east
- d) 10m, south west
- e) None of these

#### Answer & Explanation

Answer – c) 10m, north east



#### Explanation :

• Nikhil starts walking in east direction and after 10 m he took a right turn and walks 10 meter to reach stationery. From the stationery he took a left turn and walks for 20 meter to reach his aunt home. After this he took a right turn and walks 10 meter to reach his school. In which direction is his school from the starting point?

- a) north east
- b) south west
- c) south east
- d) north east
- e) None of these

#### Answer & Explanation

Answer – c) south east



#### Explanation :

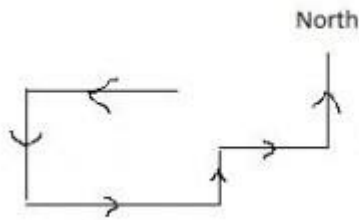
• Priya starts running in west direction and after some distance she turns to her left and cover some distance. After this she took a left turn and then again left turn and run some

**distance. After that she took a right turn and finally a left turn. Now in which direction she is running.**

- a) north
- b) south
- c) east
- d) west
- e) None of these

### Answer & Explanation

Answer – a) north



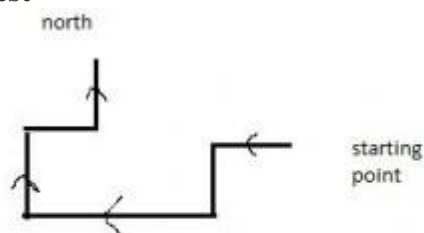
**Explanation :**

- Neha starts walking in a direction then she took a left turn and after walking some distance he took right turn. After walking for some distance she took two consecutive right turn and finally a left turn. Now if she is walking in north direction, in which direction it starts?

- a) north  
b) south  
c) west  
d) east  
e) None of these

### Answer & Explanation

Answer – c) west



**Explanation :**

- 

**A person starts walking in north to his house and walks 50m. Now he took a right turn and walks 20m and after that he took another right and walks 20m. Now he is moving towards his house. In which direction he is walking?**

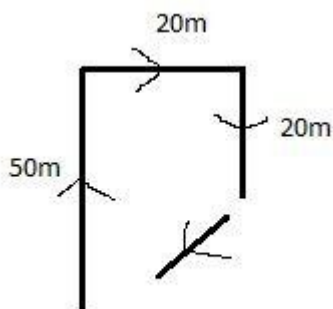
- a) south east
- b) south west
- c) north east



- d) north west  
e) None of these

**Answer & Explanation**

Answer – b) south west

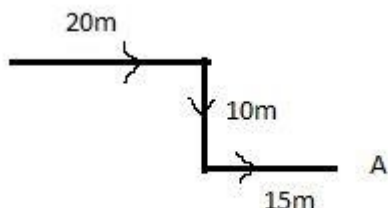
**Explanation :**

- A person starts walking in east direction and walks 20m. After that he turn to his right and walks 10m and then turn to his left and walks 15m and reached at a point A. Find the distance between A and initial point

- a)  $5\sqrt{51}$   
b)  $5\sqrt{53}$   
c)  $5\sqrt{57}$   
d)  $5\sqrt{59}$   
e) None of these

**Answer & Explanation**

Answer – b)  $5\sqrt{53}$

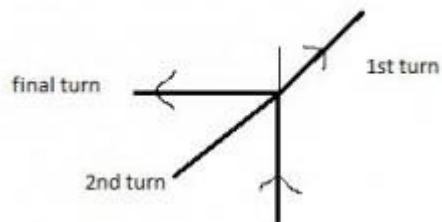
**Explanation :**

- A person starts walking in north direction and after walking some distance he turns to 45 degree in clockwise direction. After that he turns 180 degree anti clockwise and again 45 degree in clockwise direction. Now in which direction he is walking

- a) west  
b) east  
c) north  
d) south  
e) None of these

**Answer & Explanation**

Answer – a) west



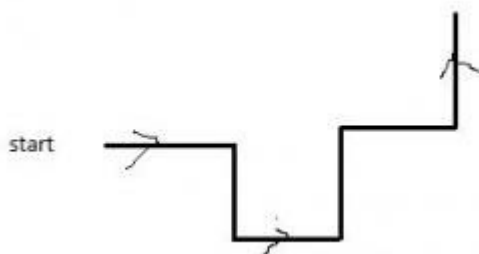
Explanation :

• Anil starts walking in east direction and after travelling some distance he took a right turn and then a left turn followed by another left turn. Now he again took a right turn and finally took a left turn. In which direction is anil walking.

- a) south
- b) north
- c) east
- d) west
- e) None of these

**Answer & Explanation**

Answer – b) north



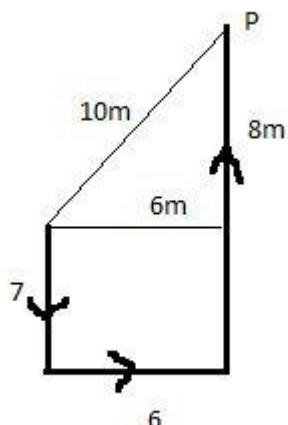
Explanation :

• A person starts walking in south direction and walks a distance of 7 meters. Now he takes a left turn and walk 6m. Again he takes a left turn and walk 15m and reached a point P. Find the distance between starting point and P and in which direction is the person from the initial point.

- a) 10m, south east
- b) 10m, north west
- c) 10m, north east
- d) 10m, south west
- e) None of these

**Answer & Explanation**

Answer – c) 10m, north east



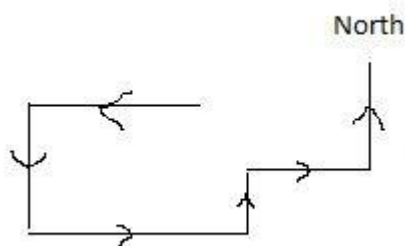
**Explanation :**

• Riya starts running in west direction and after some distance she turns to her left and cover some distance. After this she took a left turn and then again left turn and run some distance. After that she took a right turn and finally a left turn. Now in which direction she is running.

- a) north
- b) south
- c) east
- d) west
- e) None of these

**Answer & Explanation**

Answer – a) north



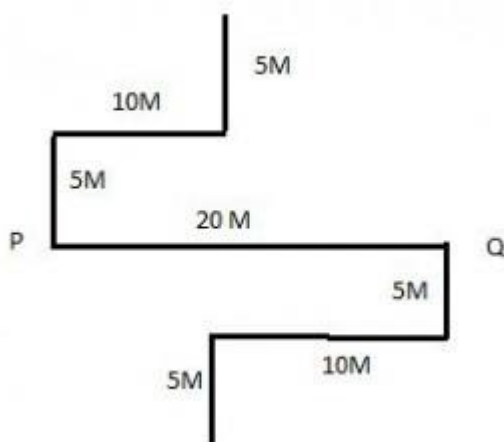
**Explanation :**

• Two Person P and Q are separated by a distance of 20 meter in west –east direction respectively. Now P and Q start walking in north and south direction respectively and walked for 5 meter. Now P and Q took a right turn and walked 10m each. Now P and Q took left turn and after walking 5 meter both of them stopped. Find the distance between them

- a) 15
- b) 25
- c) 30
- d) 35
- e) None of these

**Answer & Explanation**

Answer – e) None of these



Explanation :

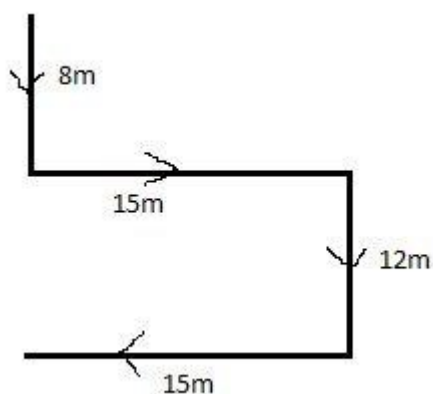
20 meter.

• P walks 8m to the south ,then he turn to his left and walks 15m then he turn to his right and walk 12m again he turns to his right and walk 15m and turn right and stopped how far and in which direction from the starting point

- a) 10 north
- b) 20 south
- c) 20 east
- d) 20 west
- e) None of these

**Answer & Explanation**

Answer – b) 20 south



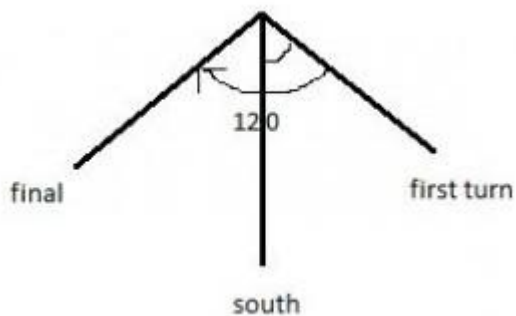
Explanation :

• A boy is facing south direction. He turns 60 degree in anti-clockwise direction and then 120 degree in clockwise direction. In which direction is he facing?

- a) south east
- b) north east
- c) south west
- d) north west
- e) None of these

**Answer & Explanation**

Answer – c) south west



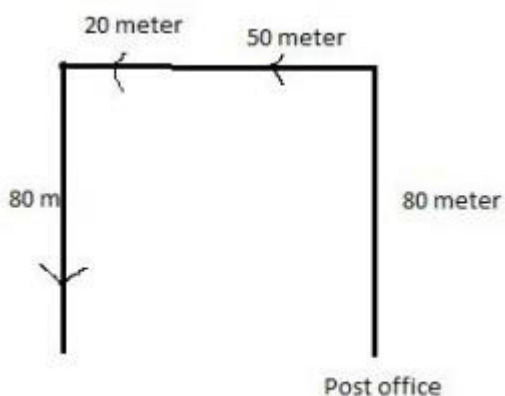
Explanation :

• A postman was returning to the post office which was in front of him to the south. When the post office is 80m away from him, he turned to the right and walks 50m to deliver the last letter. He continues walks in the same direction for 20 meter and then took a left turn and walks 80 meter. How many meters was he away from the post office

- a) 30
- b) 40
- c) 60
- d) 70
- e) None of these

**Answer & Explanation**

Answer – d) 70



Explanation :