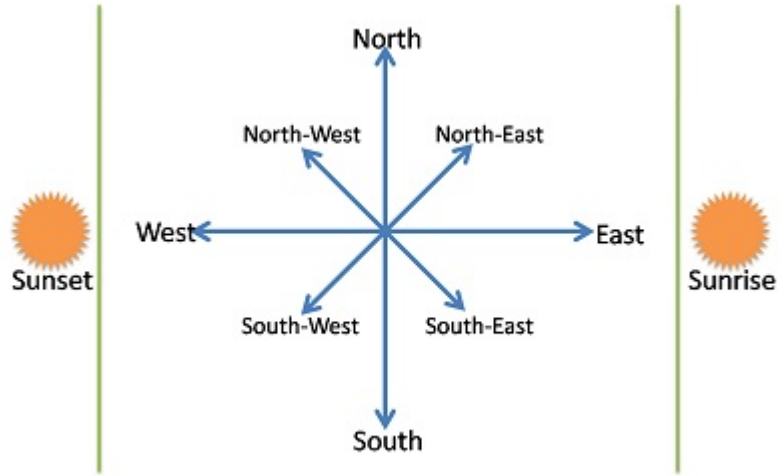

# DIRECTIONS

# CONCEPT BUILDER MANUAL

# Directions:

**The Main Directions:**

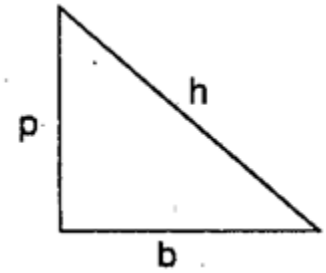



**Notes:**

(i) A person facing towards North, on taking left turn will face towards West and on taking the right turn towards East.
(ii) A person facing towards South, on taking left turn will face' towards East and on taking right turn towards West.
(iii) A person facing towards East, on taking left turn will face towards North and on taking right turn towards South.
(iv) A person facing towards West, on taking left turn will face towards South and on taking right turn towards North.
(v) A person facing towards North-West, on taking left turn will face towards South-West and on taking right turn will face towards North-East.
(vi) A person facing towards South-West on taking left turn will face towards South-East and on taking right turn towards North-West.
(vii) A person facing towards South-East, on taking left turn will face towards North-East and on taking right turn towards South-West.
(viii) A person facing towards North-East, on taking left turn will face towards North-West and on taking right turn towards South-East.

## Pythagoras Formula:

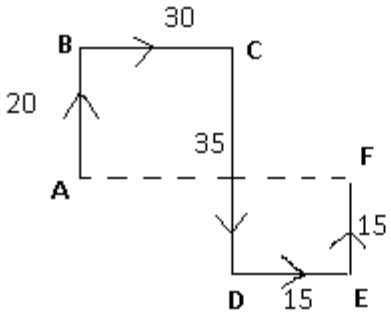
In order to determine the distance travelled or the shortest straight distance between the two given points, the Pythagoras formula *h^2 = b^2 + p^2*

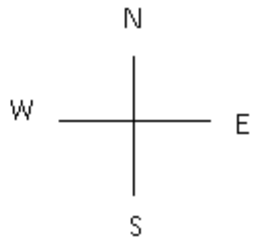



Where, h = hypotenuse
p = perpendicular
b = base

## Sample Questions:

1. A man rides his two-wheeler 20km towards north from his house and takes right and rides 30km. Then he turns right and rides 35km and takes left and rides 15 km. Finally, he turns left and rides 15km. How many km is he far from his house?
   a. 40
   b. 15
   c. 20
   d. 10
   Solution:



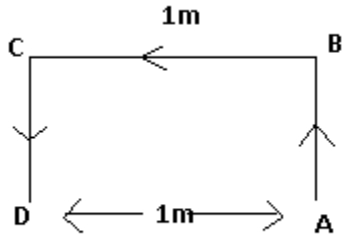




   Required distance AF = 30 + 15 = 45
   Hence the answer is 45km.

2. A man walks with his friend towards North, then turned left and walks 1 m and again turned left and walks 2 m. They find themself 1 m west of their starting point. How far did they walk northwards initially?
   a. 2m
   b. 1m

c. 4m
d. 3m

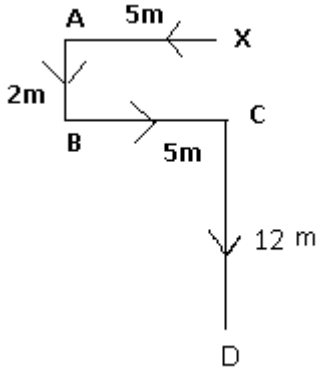
Solution:




Starting point is A The required distance = AB from the diagram above, AD = BC Since CD = 2m then obviously AB = 2m

3. Jaya returned back to her house from school. She had walked 5m towards west from her school and turned left and walked 2m. Then she turned left and walked 5m. Finally she turned to her right and walked 12m and reached her home. How far is Jaya's house from her school?
   a. 12m
   b. 7m
   c. 14m
   d. 10m

*Solution:*

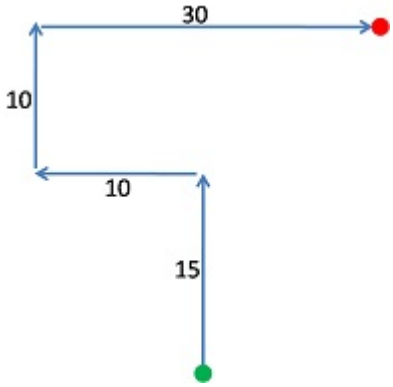



From the diagram,
Let x be point of school and D be the point of her house.
Therefore, the required distance = XC + CD = 2m + 12m = 14m
Hence the distance between her school and house is 14m.

4. Joe is walking towards North for 15 miles, turns left and walks another 10 miles. He then turns right and walks 10 miles. Now, he again turns right and walks 30 miles. Which direction is he from Starting point?
   a. South-East
   b. North-East

c. North-West
d. South-West

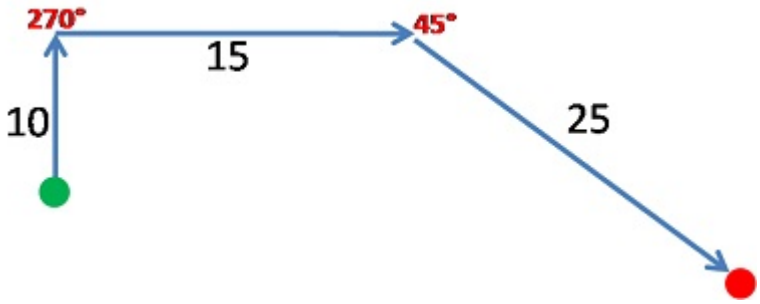
Solution:




Therefore, the Answer is North East

5. Morris is facing North and walks 10kms. He turns 270° anti-clockwise and walks 15kms. Now, he again turns 45° clockwise and walks for 25kms. Which direction is he facing now?
   a. North-West
   b. South-West
   c. North-East
   d. South-East

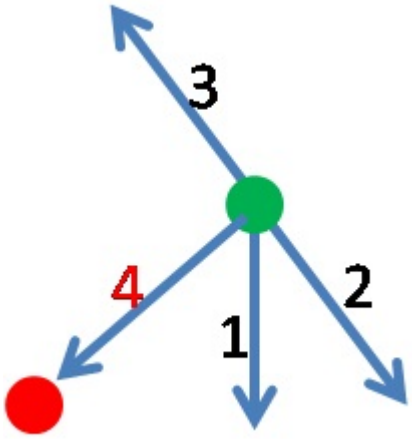
Solution:




Answer: South East

6. Joe is facing towards South and turns 45° anti-clockwise. He turns again 180° in anti-clockwise direction. Now, he turns 270° clockwise. Which direction is he facing?
   a. West
   b. East
   c. South West
   d. North East

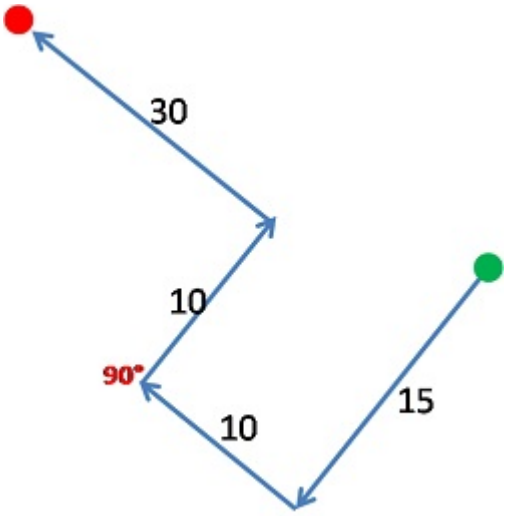
Solution:




Answer: South West

7. Mary is walking towards South-West for 15 miles, turns right and walks another 10 miles. She then turns 90° Clockwise and walks 10 miles. Now, she again turns left and walks 30 miles. Which direction is she facing?
   a. East
   b. West
   c. South east
   d. North West

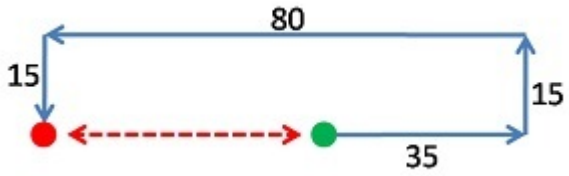
Solution:




Answer: North West

8. Joe went 35 meters towards east from Mary's house. He turns left and walks 15 meters. Now, he takes a left turn and walks 80 meters. Finally, he turns left and walks for 15 meters. How far Joe is from Mary's house?
   a. 30
   b. 45
   c. 50
   d. 65

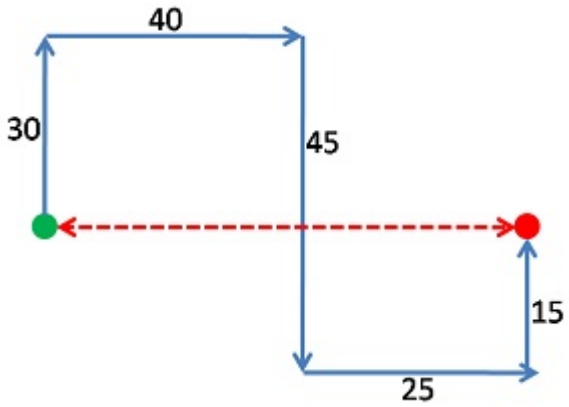
   Solution:




   Answer: 45

9. Maria walked 30 m towards north. She turned right and walked 40 m. She then turned right and walked 45 m. She turned left and walked 25 m. Finally, she turned left and walked 15 m. How far is she from the starting position?
   a. 55
   b. 65
   c. 30
   d. 45

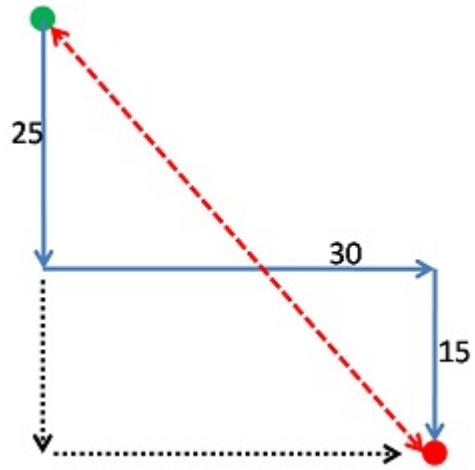
   Solution:




   Answer: 65

10. A car travels 25 kms towards south from garage. It turns left and travels 30 kms, then turns right and travels 15 kms. how far is car from the garage and in which direction?
    a. 40 North-East
    b. 70 South-East
    c. 60 North-East
    d. 50 South-East

Solution:




Answer: 50 South east