

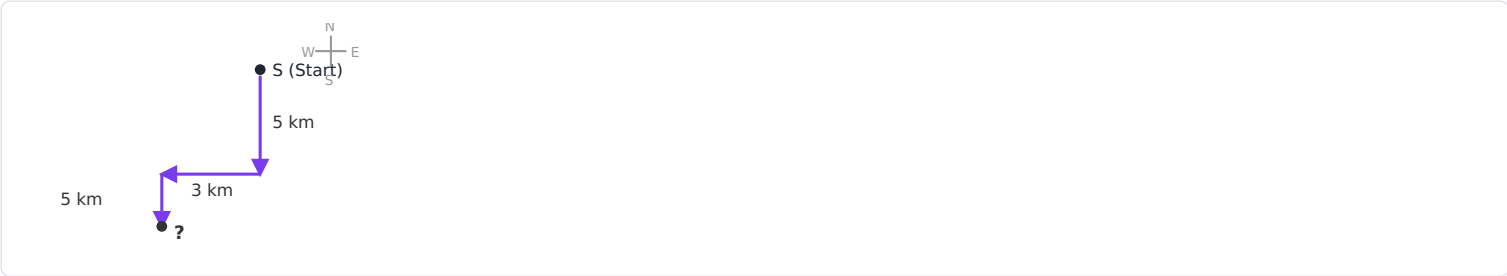
What is Direction Sense?

Direction Sense questions test how well you can track movement and position using the four main directions (North, South, East, West) and the four intermediate directions (North-East, North-West, South-East, South-West). You are usually given a starting point and a series of moves or turns, and asked to find the final direction, distance, or position.

Q1. Multiple Turns

A man starts walking from point S and goes 5 km towards South. He then turns to his right and walks 3 km. He then turns to his left and walks 5 km. In which direction is he now from his starting point?

PATH DIAGRAM



ANSWER OPTIONS

- North-East
- South-West
- North-West
- South-East
- (A)
- (B)
- (C)
- (D)

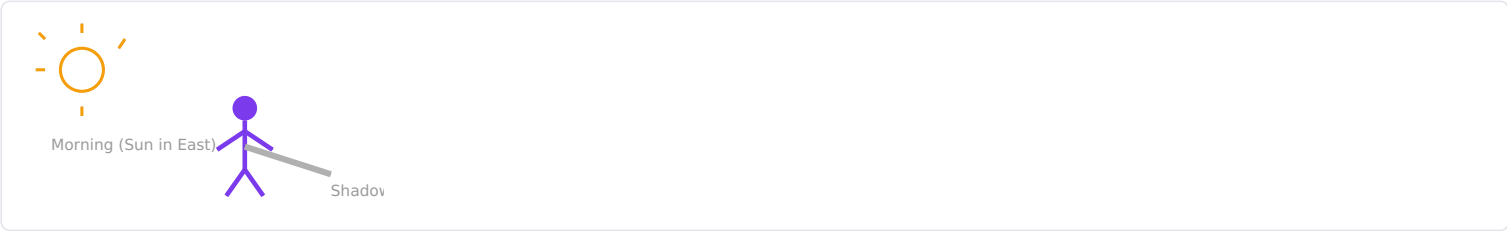
Answer: (B)

Facing South and turning right means he now faces West; walking 3 km West takes him left of the line. Facing West and turning left means he now faces South; walking 5 km South takes him further down. His final position is West and South of the start, so he is to the South-West of his starting point.

Q2. Shadow Direction

Every morning Priya goes for a walk facing the rising Sun. If her shadow falls exactly to her right side, which direction is she facing?

FIGURE



ANSWER OPTIONS

- North
- East
- South
- West
- (A)
- (B)
- (C)
- (D)

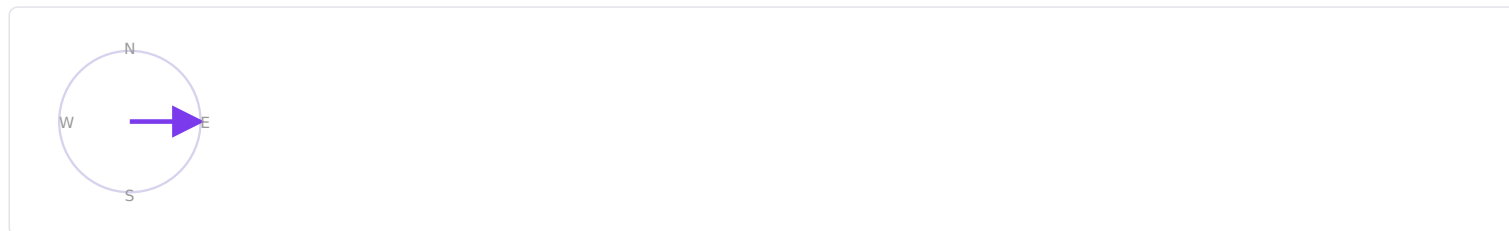
Answer: (C)

In the morning the Sun rises in the East, so a shadow always falls on the side away from the East. For the shadow to fall on her right side, her right side must point West. A person facing South has West on their right, so Priya is facing South.

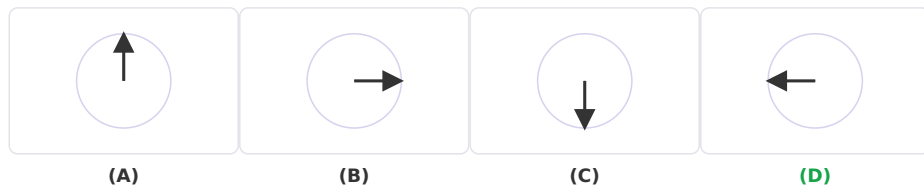
Q3. Series of Turns

Ravi is facing East. He turns 90° clockwise, then turns 180° , and finally turns 90° anti-clockwise. Which direction is he facing now?

STARTING FIGURE



ANSWER FIGURES



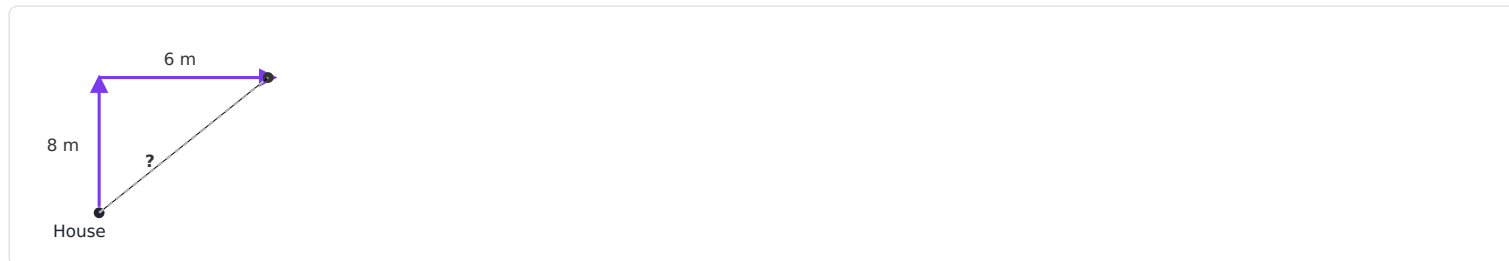
Answer: (D)

Starting from East, a 90° clockwise turn faces him South. A further 180° turn faces him North. A 90° anti-clockwise turn from North faces him West. So Ravi ends up facing West.

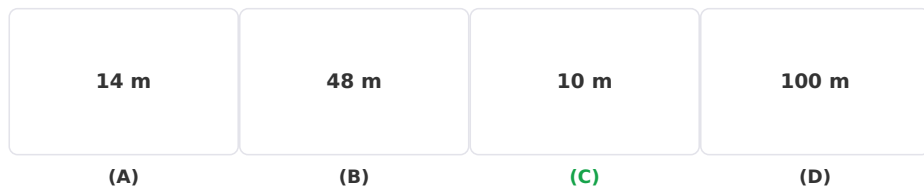
Q4. Finding the Distance

A boy starts from his house and walks 8 m towards North. He then turns and walks 6 m towards East. How far is he now from his house?

PATH DIAGRAM



ANSWER OPTIONS



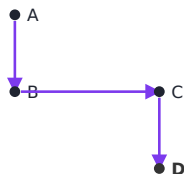
Answer: (C)

The North and East legs of the walk are at right angles to each other, so the straight-line distance back to the house is the hypotenuse of a right triangle: the square root of $(8^2 + 6^2) =$ the square root of 100, which is 10 m.

Q5. Relative Positions

Point A is to the North of point B. Point C is to the East of point B. Point D is to the South of point C. In which direction is point D with respect to point A?

POSITION DIAGRAM



ANSWER OPTIONS

North-West

South-East

North-East

South-West

(A)

(B)

(C)

(D)

Answer: (B)

Placing B at the centre, A lies above it (North) and C lies to its right (East). D lies below C (South), which puts D both to the East and South of A. So D is to the South-East of A.

Q6. Opposite Direction

The figure below shows an arrow pointing towards the North-East. Which answer figure shows the arrow pointing in exactly the opposite direction?

FIGURE



ANSWER FIGURES



(A)



(B)



(C)



(D)

Answer: (A)

The opposite of any direction lies exactly 180° away from it. North-East is halfway between North and East, so its opposite lies halfway between South and West — that is, South-West, as shown in figure (A).

Exam Tip

Sketch every move as you read the question — mark the start point, then draw each leg in the correct direction and length. Remember: turning right/left changes the direction you FACE by 90° , it does not by itself tell you the direction you have travelled. For "how far" questions with two perpendicular legs, use the Pythagorean rule instead of adding the distances directly.