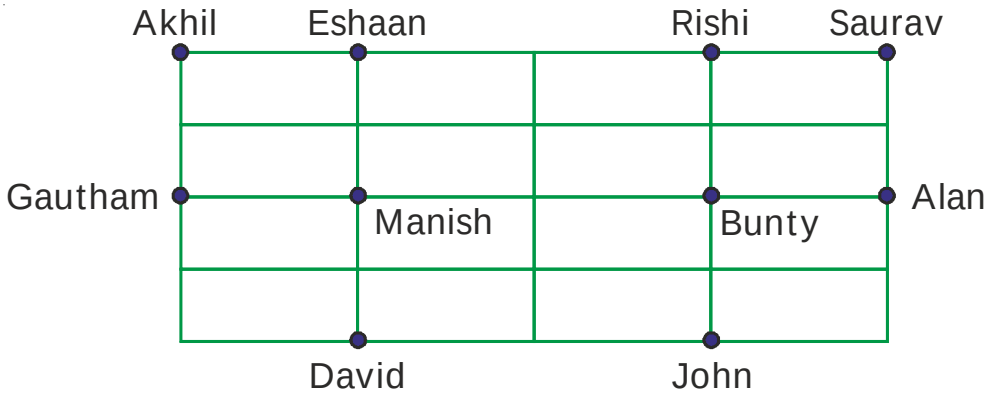
01 **Look at the diagram below and answer the following questions.**



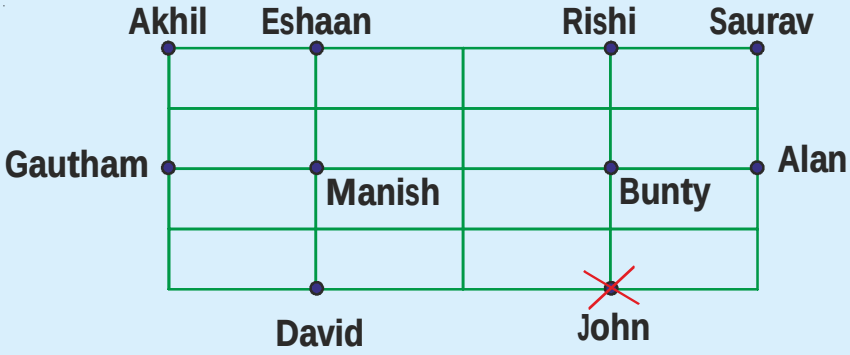
(a) **Naren walks from David's house to Manish's house. Then he makes a $\frac{1}{4}$ turn to his right and walks to _____'s house. After that, Naren makes an anti-clockwise $\frac{1}{4}$ turn and walks to _____'s house. Finally he makes a $\frac{1}{2}$ turn before walking to the end of the line.**

(b) **Whose house will Naren be at the end of his journey ? Manish his position with a cross on the diagram above.**

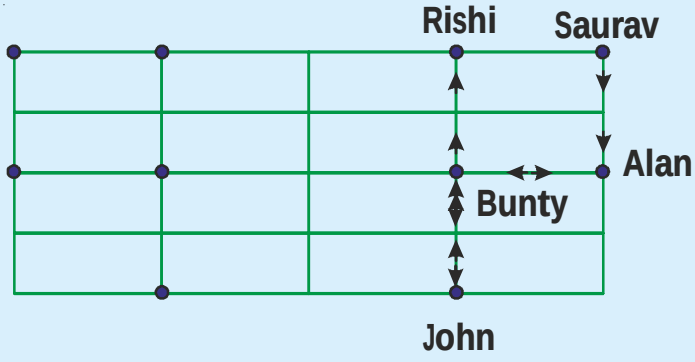
(c) **If Naren had started his journey at Saurav's house to Alan's house and made the same turns, whose house would he end up at ?**

(a) Bunty Rishi

(b) John's house



(c)



→→ walking path of Naren.

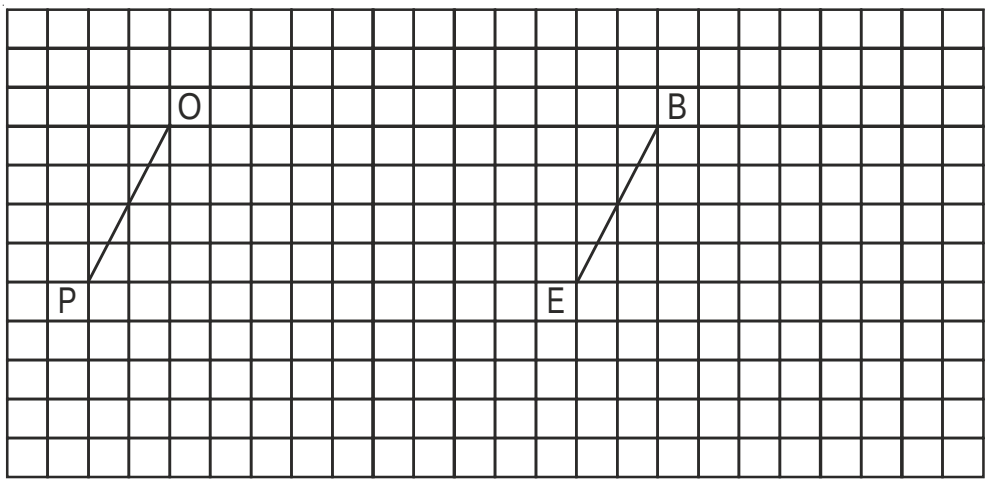
He would end up at Rishi's House.

02 **Use the grid below for the following questions.**

(a) **Draw a rectangle using EB as its length. Name the rectangle BEAR.**

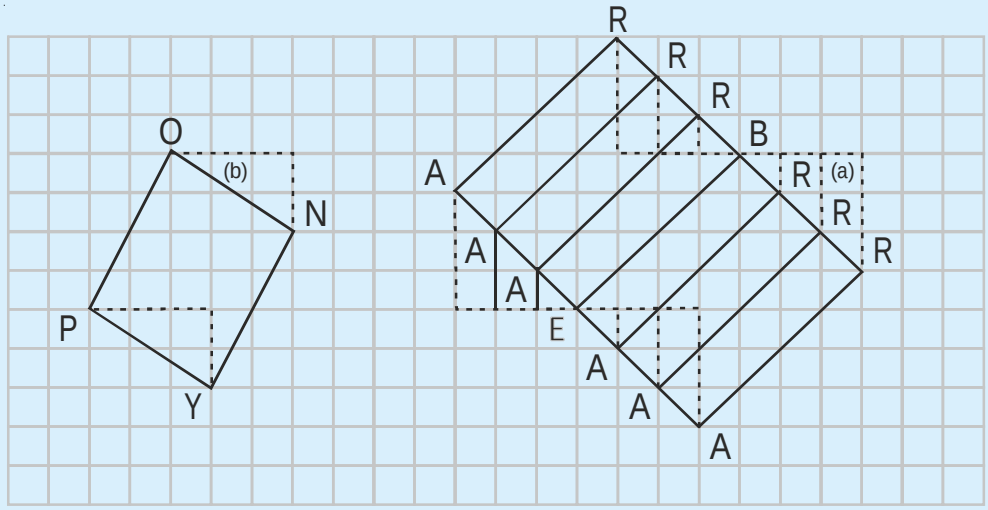
(b) **Draw a square with OP as one of its sides. Name the square PONY.**

(c) **Name a pair of parallel lines from the figures drawn.**



Your solution here:

(a) and (b)



For the drawing of rectangle BEAR, there are six possible ways. The position of R can be obtained by counting 3/2/1 step(s) to the right/left and 3/2/1 step(s) downup from the position of B. The position of A can be obtained by applying the same steps in the position of E. Make sure the corners of the rectangles are labeled in the correct order. (The dotted lines are provided to show how to find 3 steps to the right/left and 3 steps down/up from positions of E and B.) Remember that the breadth (BR and EA) of the rectangle must be shorter than the length (EB and AR).

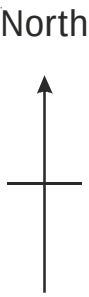
For drawing of square PONY, the position of N can be obtained by counting 4 steps to the right and 2 steps down from the position of O. The postion of Y can b eobtained by applying the same steps on the position of P. (The dotted lines are provided to show how to find the position of the missing corner.)

(C) (Accept any possible answers.)

PQ // YN

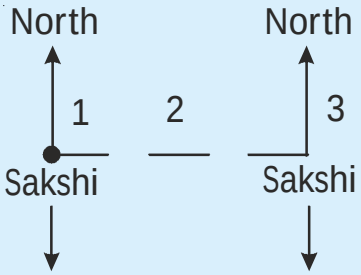
BE // RA

03 **(a)** **Sakshi was facing south at first. She walked 3 steps to her left, without turning. She then made a $\frac{5}{8}$ turn to her right and then made a quarter turn to her left. Which direction was she facing in the end ?**

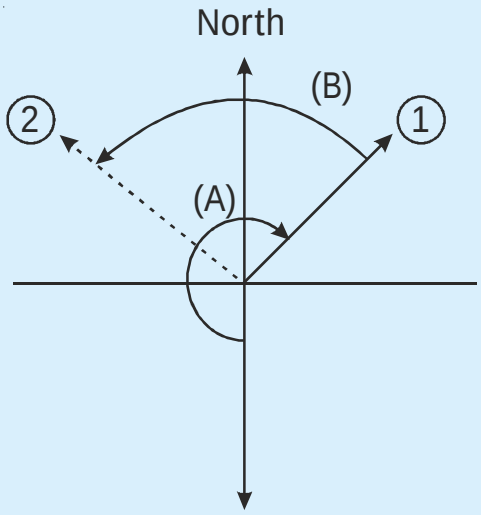


(b) **What is the smaller angle between north and south-west ?**

(a) and (b)



When Sakshi walked to her left without turning, note that the direction she was facing was still south (although she was moving eastwards).



(A) : $\frac{5}{8}$ turn

(B) : $\frac{1}{4}$ turn

When she made a $\frac{5}{8}$ turn to her right she would be facing north-east (1), but after the $\frac{1}{4}$ turn to her left she would face north-west in the end (2).

(b) The smaller angle between north and south-west is (90° + 45°) = 135°)