Construction of a Line parallel to a given Line, through a point not on the line

Follow the given steps to construct a line parallel to a given line.

Step 1: Choose any point X on the line segment AB and join it to point P as shown.Step 2: With X as center and any suitable radius draw an arc cutting the line segment PX at point M and AB at point N respectively.

Step 3: With P as center and radius as used in the previous step draw an arc EF cutting the line segment PX at point Q as shown.

Step 4: With Q as center and same radius as before, draw an arc cutting the arc EF at R as shown below.

Step 5: Join R and P to draw a line segment CD as shown.

The line segment CD is the required line parallel to the line segment AB and passes through the point P.

To verify whether the line segment that is constructed is parallel to line segment AB, connect the points E, Q and M, N as described below:

