

## chapter - 13

## practical geometry

### Exercise - 10.1

1. Draw a line, say AB, take a point C outside it. Through C, draw a line parallel to AB using ruler and compasses only.

Step-1 Draw the line AB + Take a point outside this line AB

Step-2 Mark D point somewhere in AB + D & P

Step-3 Join D & P to make DP.

Step-4 from compass of suitable radius as D as centre draw a arc ~~in~~ on AB so that it joins PD to E.

Step-5 with the same radius in step-3 draw an arc GH such that it meets PD line at I.

Step-6 Adjust the compass acc to P + E & F

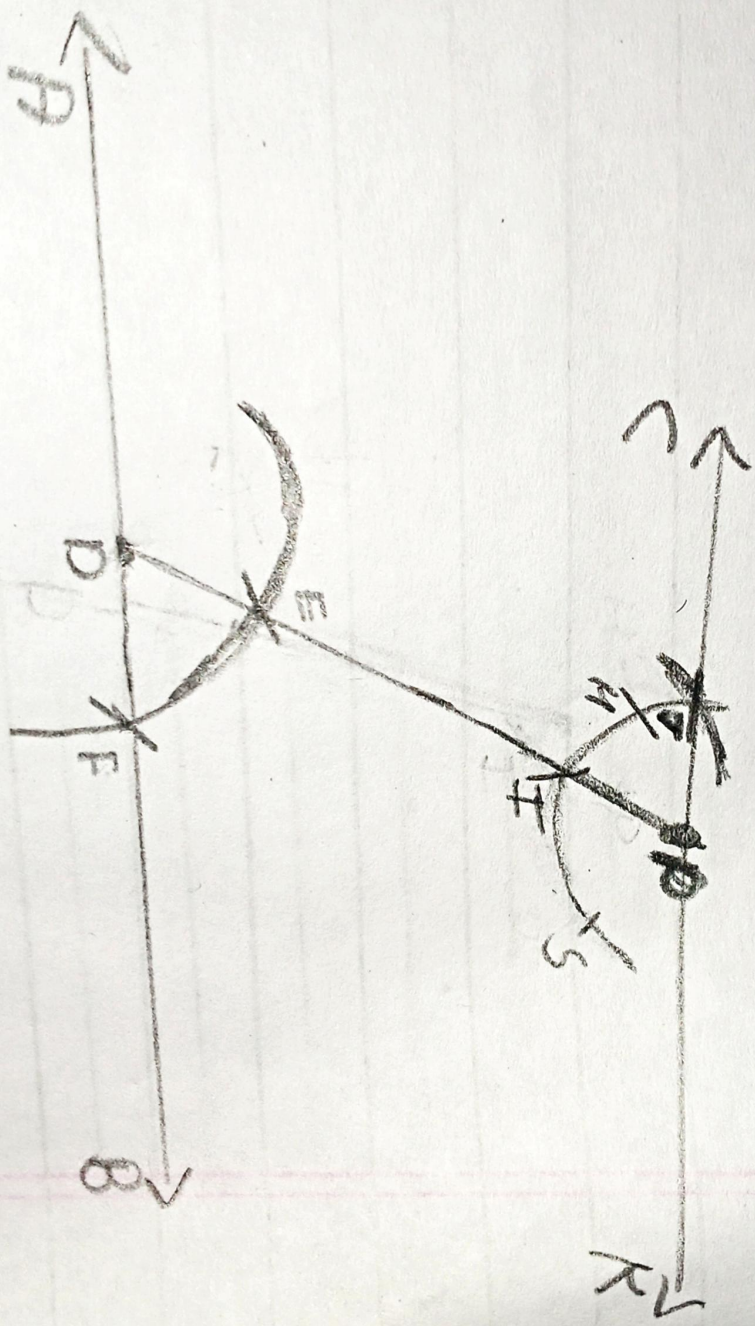
Step-7 with same radius in 5<sup>th</sup> step as centre I that it cuts the arc HG at J.

Step-8 Join J & P so we will have line CP || AP.

- 2 Draw a line l. Draw a perpendicular to l at



Prms - 1





any point on  $l$ . on this perpendicular choose a point  $X$ , 4 cm away from  $l$ . Through  $X$ , draw a line  $m$  parallel to  $l$ .

- Ans Step -
- ① Draw a line  $l$
  - ② make a point on line  $l$
  - ③ Draw a perpendicular from that point of line  $l$ .
  - ④ Adjust compass' s length to 4 cm.
  - ⑤ As  $p$  centre mark and arc on this perpendicular.
  - ⑥ As  $x$  as centre draw a perpendicular a 'm' Now  $m \parallel l$

3. let  $l$  be a line and  $p$  be a point not on  $l$ . Then  $P$ , draw a line  $m$  parallel to  $l$ . now join  $P$  to any point  $Q$  on  $l$ . choose any other point  $R$  on  $m$ . Through  $R$ , draw a line parallel to  $PQ$ . let this meet  $l$  at  $S$ . what's hope do the two sets of parallel lines enclose?

Ans =  $(LP = LQ) \rightarrow \boxed{M \parallel l}$

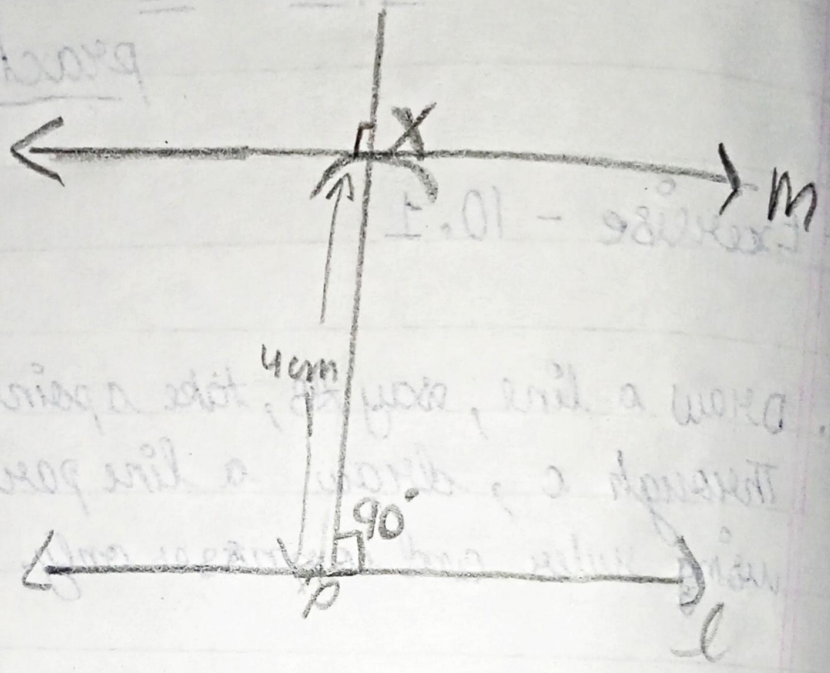
$PQ \nparallel RS$   $\angle P = \angle R \rightarrow$  corresponding  
The two sets of parallel line make shape [square]



Ans-2

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Ans-3

