CHAPTER – 14

Practical Geometry

EXERCISE – 14.3

Q. 1

Draw any line segment PQ. Without measuring $\overline{PQ}$, construct a copy of $\overline{PQ}$.

Answer:

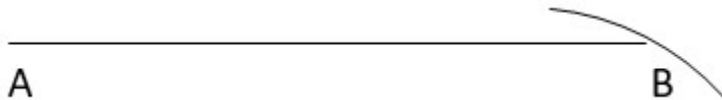Steps of Construction-

1. Draw a line segment PQ.

P   Q

2. Keep the needle of compass on P and other end of it on Q.

3. Draw point A. Put the needle of compass on A and draw an arc, naming it as B. Join A and B.

4. Hence, AB is the copy of PQ.

A   B

Q. 2

Given some line segment AB, whose length you do not know, construct $\overline{PQ}$ such that the length of $\overline{PQ}$ is twice that of $\overline{AB}$.

Answer:

Steps of Construction-

1. Draw a line segment AB.

A_____B

2. Keep the needle of compass on A and other end of it on B.

compass on A and other end of it on B.

3. Draw point P. Put the needle of compass on P and draw an arc, naming it as R. Again draw an arc by putting the needle on R such that PR extends to Q.

4. Hence, PQ is the twice of AB.

P   R   Q