NCERT SOLUTIONS FOR CLASS 6 MATHS PRACTICAL GEOMETRY EXERCISE 14.3

Exercise 14.3

Question 1:

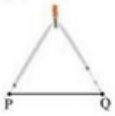
Draw any line segment $\overline{PQ}$. Without measuring $\overline{PQ}$, construct a copy of $\overline{PQ}$.

Answer:

The following steps will be followed to draw the given line segment $\overline{PQ}$ and to construct a copy of $\overline{PQ}$.

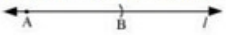
(1) Let $\overline{PQ}$ be the given line segment.

(2) Adjust the compasses up to the length of $\overline{PQ}$.



(3) Draw any line *l* and mark a point A on it.

(4) Put the pointer on point A, and without changing the setting of compasses, draw an arc to cut the line segment at point B.



$\overline{AB}$ is the required line segment.

Question 2:

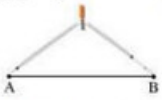
Given some line segment $\overline{AB}$, whose length you do not know, construct $\overline{PQ}$ such that the length of $\overline{PQ}$ is twice that of $\overline{AB}$.

Answer:

The following steps will be followed to construct a line segment $\overline{PQ}$ such that the length of $\overline{PQ}$ is twice that of $\overline{AB}$.

(1) Let $\overline{AB}$ be the given line segment.

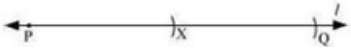
(2) Adjust the compasses up to the length of $\overline{AB}$.



(3) Draw any line *l* and mark a point P on it.

(4) Put the pointer on P and without changing the setting of compasses, draw an arc to cut the line segment at point X.

(5) Now, put the pointer on point X and again draw an arc with the same radius as before, to cut the line *l* at point Q.



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