



Geometrical Constructions Ex 19.3 Q1

Answer :

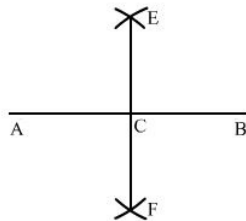
Draw a line segment AB of length 8.6 cm.

With A as centre and radius more than half of AB, draw arcs on both sides of AB.

With the same radius and B as centre, draw arcs on the both sides of AB, cutting the previous two arcs at E and F. Draw a line segment from E to F intersecting AB at C.

On measuring AC and BC, we get:

$AC = BC = 4.3 \text{ cm}$



Geometrical Constructions Ex 19.3 Q2

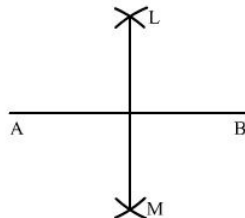
Answer :

Draw a line segment AB of length 5.8 cm using a ruler.

With A as centre and radius more than half of AB, draw arcs on both sides of AB. With the same radius and B as centre, draw arcs on both sides of AB, intersecting the previous arcs at L and M.

Draw the line segment LM with L and M as end-points.

LM is the required perpendicular bisector of AB.



Geometrical Constructions Ex 19.3 Q3

Answer :

Draw a point O. With O as centre and radius equal to 5 cm, draw a circle.

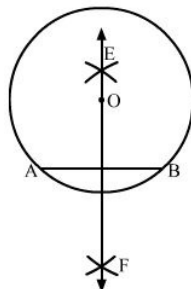
Take any two points A and B on the circumference of the circle and draw a line segment with A and B as its end points. AB is the chord of the circle.

With A as centre and radius more than half of AB, draw arcs on both sides of AB.

With the same radius and B as a centre, draw arcs on both sides of AB, cutting the previous two arcs at E and F.

Draw a line passing through E and F.

Line EF passes through the centre of the circle O.



Geometrical Constructions Ex 19.3 Q4

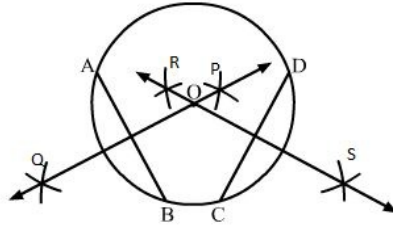
Answer :

Draw a circle with centre at O. We draw two chords AB and CD as shown in the figure.

- (i) With A as centre and radius more than half of AB, draw arcs on both sides of AB.
- (ii) With the same radius and B as centre, draw arcs cutting the arcs of step (i) at P and Q.
- (iii) Join P and Q.
- (iv) With C as centre and radius more than half of CD, draw arcs on both sides of CD.
- (v) With the same radius and D as centre, draw arcs cutting the arcs of step (iv) at R and S.
- (vi) Join R and S.

We draw the line segments of perpendicular bisector of AB and CD.

We see that the perpendicular bisector of AB and CD meet at O, the centre of the circle.



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