Probability and Random Variables Assignment

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(ii)

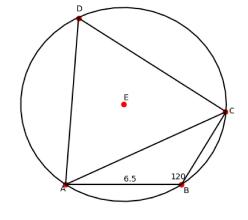
Q8c)

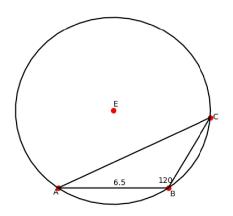
Using ruler and compass only, construct a $\triangle ABC$ such that BC = 5 cm and AB = 6.5 cm and $\angle ABC = 120^{\circ}$

- (i) Construct a circum-circle of $\triangle ABC$
- (ii) Construct a cyclic quadrilateral ABCD, such that D is equidistant from AB and BC.

SOLUTION:

(i)





the point D of the cyclic quadrilateral ABCD is the point of intersection of the angle bisectors of AB and BC and the circumcircle.

center of the circumcircle is the point of intersection of the perpendicular bisectors of AB and BC.