

Question

As we know all triangles are cyclic, i.e. every triangle has a circumscribed circle. And in our case the triangle ABC has a right angle $\angle B = 90^\circ$. So, we can say that chord AC is a diameter of the circumscribed circle, because angle $\angle B = 90^\circ$. In this case distance from point O , which is the midpoint of the chord AC to every vertex of the triangle ABC are equal. In other words $OA = OB = OC = R$, where R is the radius of the circumscribed circle. Proved.

Answer: Proved: $OA = OB = OC = R$, where R is the radius of the circumscribed circle.