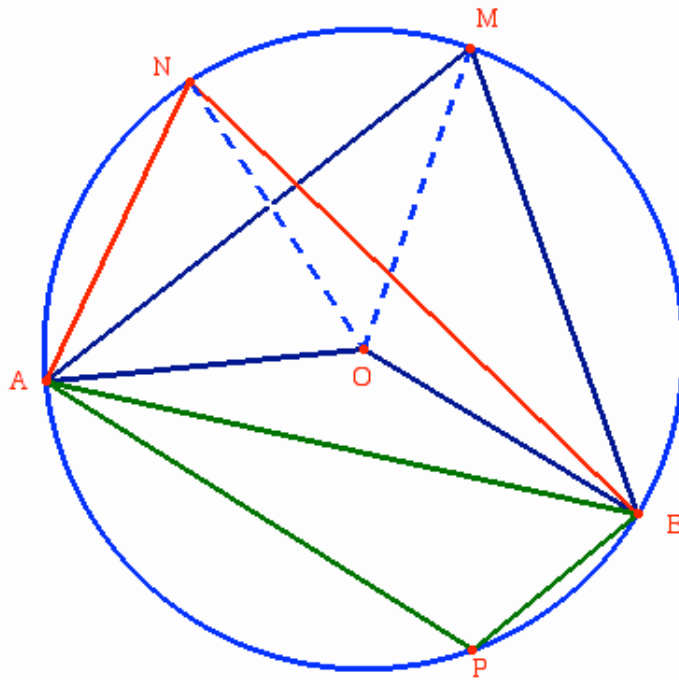Write *in proper English* the formal PROOFS of the following theorems.

Theorem 1 : *The measure of an inscribed angle is equal to half that of the associated centered angle.*


Theorem 1b : *Reciproqual of theorem 1 :* *if two triangles of the same base have their vertex angle of the same measure, they have the same circumscribed circle.*

Theorem 2 : In a triangle inscribed in a circle (C), the angle formed by the tangent line and the base of the triangle is equal to the angle of the vertex of that triangle.
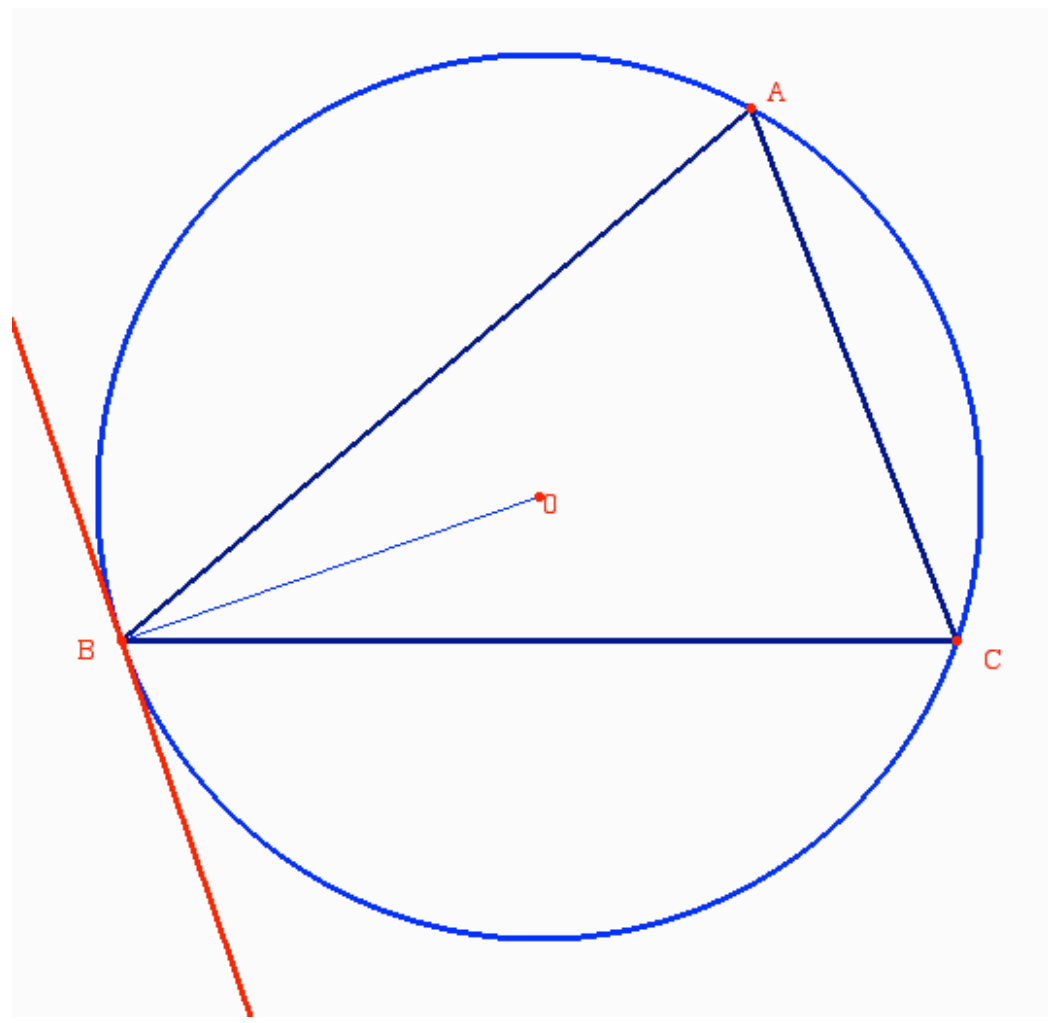
Theorem 3 : If a the four vertices of a quadrilateral are on a same circle, than the opposite angles are supplementary.
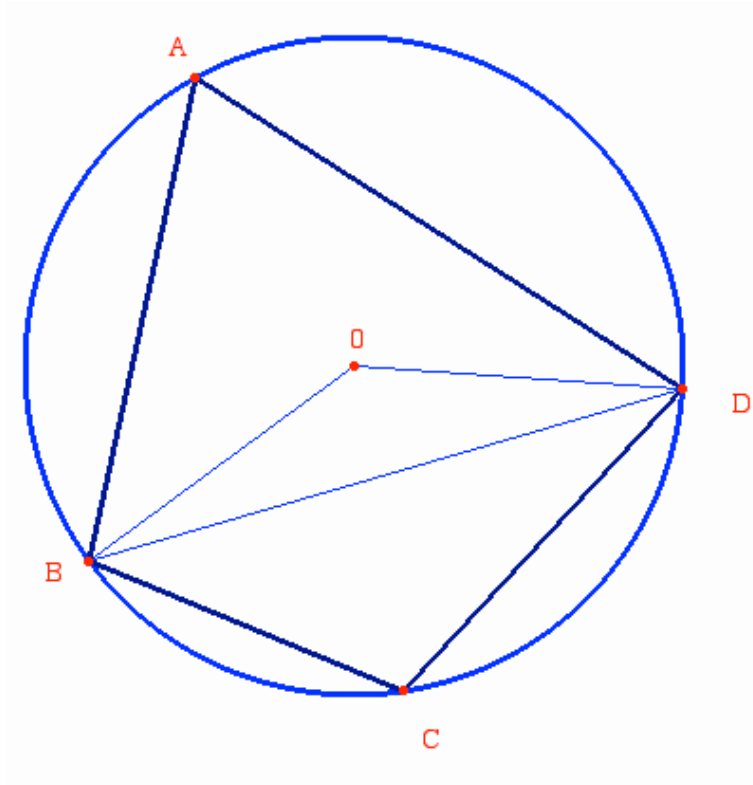
Theorem 4 : ***Reciproqual of theorem 3 :*** *if the opposite angles of a quadrilateral are supplementary, than the four vertices of the quadrilateral belong to the same circle.*