ZMATH 2015a.00610

Hung, Tran Quang

Two tangent circles from jigsawing quadrangle.

Forum Geom. 14, 247-248 (2014).

Let ABC be an acute angled triangle. Van Lamoen has given the following construction: P and Q are a pair of isotomic points lying on BC, the perpendicular to BC through P intersects AB at P', the perpendicular to BC through Q intersects AC at Q', if we rotate BPP' and CQQ' about P' and Q' so that P and Q overlap, then also B and C overlap at a point A'. The quadrangle $AP'A'Q'$ is cyclic. If S is the circumcenter of $AP'A'Q'$ and T is the intersection of the tangents at B and C to the circumcircle of ABC this paper proves that the circumcircle of $AP'A'Q'$ is tangent at A' to the circle of center T and radius $TB = TC$.

Antonio M. Oller (Zaragoza)

Classification: G45
Keywords: tangent circles; jigsawing a quadrangle
http://forumgeom.fau.edu/FG2014volume14/FG201425index.html