

Propuesto por Marian Cucoanes, Romania, y Juan José Isah Mayo, España

$$\frac{1}{r_2} = \frac{1}{r} + \frac{1}{r_1}.$$

The diagram illustrates the geometric construction of the angle bisector of angle A in triangle ABC . The angle bisector of $\angle A$ is shown as a solid line segment AD . The angle bisector of the exterior angle at A is shown as a dashed line segment. The perpendicular bisectors of these two bisectors intersect at point K , which is the center of the circle passing through A , B , and C . Other points labeled include M , J , I , and D . Angles are labeled α and $180^\circ - 3\alpha$.

C.q.f.d.