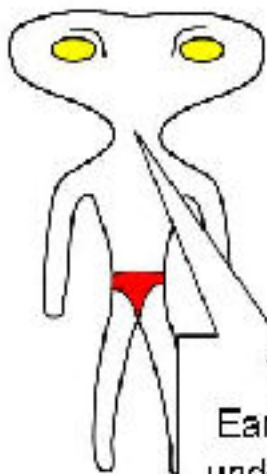


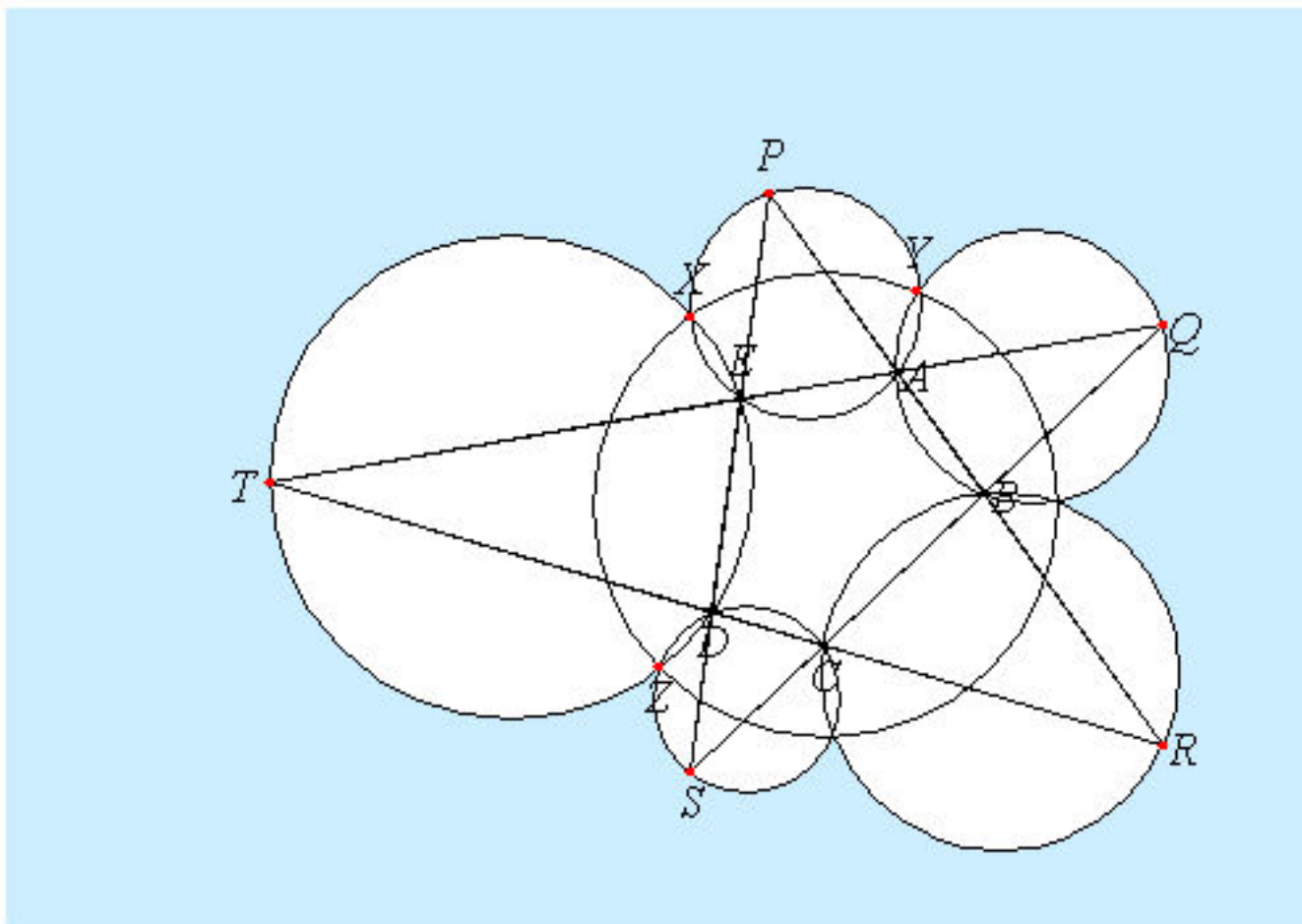


THEOREM OF THE DAY

The Five Circle Theorem Let the five sides of a pentagon $ABCDE$ be extended until they intersect in five points P, Q, R, S and T , say. Then the five circumcircles of triangles BQA, APE, ETD, DSC and CRB intersect with each other in five distinct points, not lying on the pentagon and lying on a common circle.



The Earthlings understand the power of the mystical number five!



We must flee their planet!

Java applet

Here the points X, Y and Z having been made to coincide with three intersection points, their circumcircle is seen automatically to coincide with a further two points of intersection.

Auguste Miquel taught mathematics in Nantua in the French Alps, and in Castres, where Fermat died nearly two hundred years earlier. He published this, and a number of other theorems relating to the geometry of circles, between 1838 and 1846.

Web link: agutie.homestead.com/Files/miquel_pentagram1.htm

Further reading: *Episodes in Nineteenth and Twentieth Century Euclidean Geometry*, by Ross Honsberger, The MAA, 1996.

