

Problem 16
The Feuerbach Point lies on the Pedal Circle of the Weill Point

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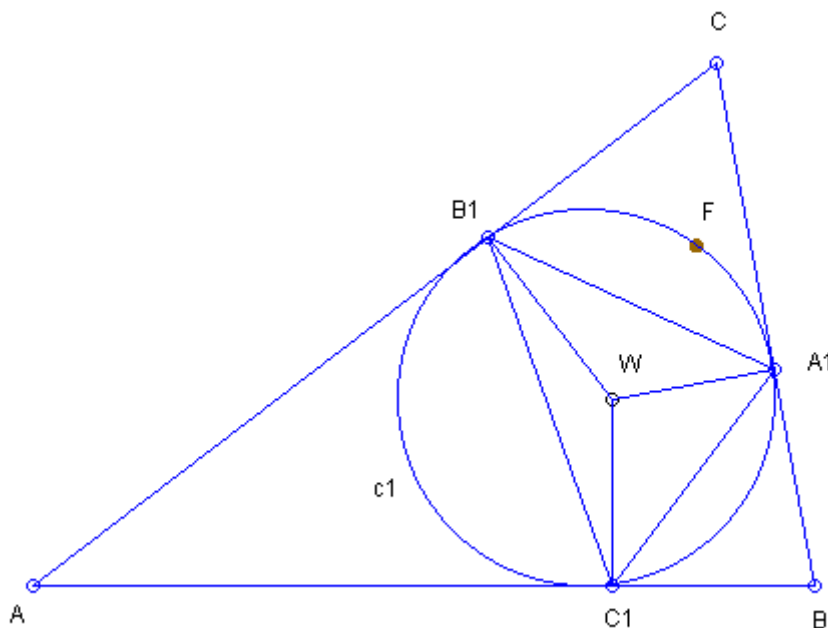
Prove the following computer-generated theorem:

THEOREM. The Feuerbach Point lies on the Pedal Circle of the Weill Point.

The reader may find the definitions in [1-4].

The *Weill Point* is the Centroid of the Intouch Triangle.

See the Figure:



W - Weill Point = Centroid of the Intouch Triangle;

$A_1B_1C_1$ - Pedal Triangle of the Weill Point;

circle c_1 - Pedal Circle of the Weill Point = Circumcircle of triangle $A_1B_1C_1$;

The Feuerbach Point F lies on the Pedal Circle of the Weill Point.

References

1. Quim Castellsaguer, The Triangles Web,
<http://www.xtec.es/~qcastell/ttw/ttweng/portada.html>
2. D. Dekov, Computer-Generated Encyclopedia of Euclidean Geometry, First Edition,
2006, available at the Web: <http://www.dekovsoft.com/e1/>.
3. D. Dekov, papers in this journal, 2006, 2007, 2008.
4. Eric W. Weisstein, MathWorld - A Wolfram Web Resource.
<http://mathworld.wolfram.com/>