

Problem 9  
The Feuerbach Point is the External Center of Similitude of the Circumcircle and the Outer Johnson-Yff Circle

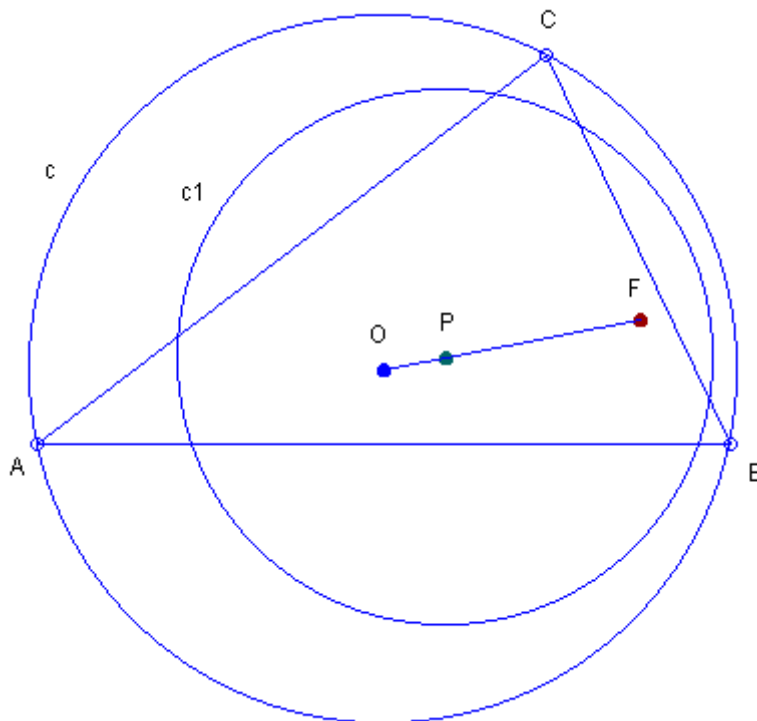
Publication Date: March 4, 2008

Prove the following computer-generated theorem:

**THEOREM.** The Feuerbach Point is the External Center of Similitude of the Circumcircle and the Outer Johnson-Yff Circle.

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

See the Figure:



c - Circumcircle;  
O - Circumcenter;  
c1 - Outer Johnson-Yff Circle;

P - center of the Outer Johnson-Yff Circle;  
The Feuerbach Point F is the External Center of Similitude of the Circumcircle and the Outer Johnson-Yff Circle.

## 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/>