Problem 35
The Feuerbach Point is the External Center of Similitude of the Circumcircle of the Johnson Triangle and the Circumcircle of the Outer Yff Triangle
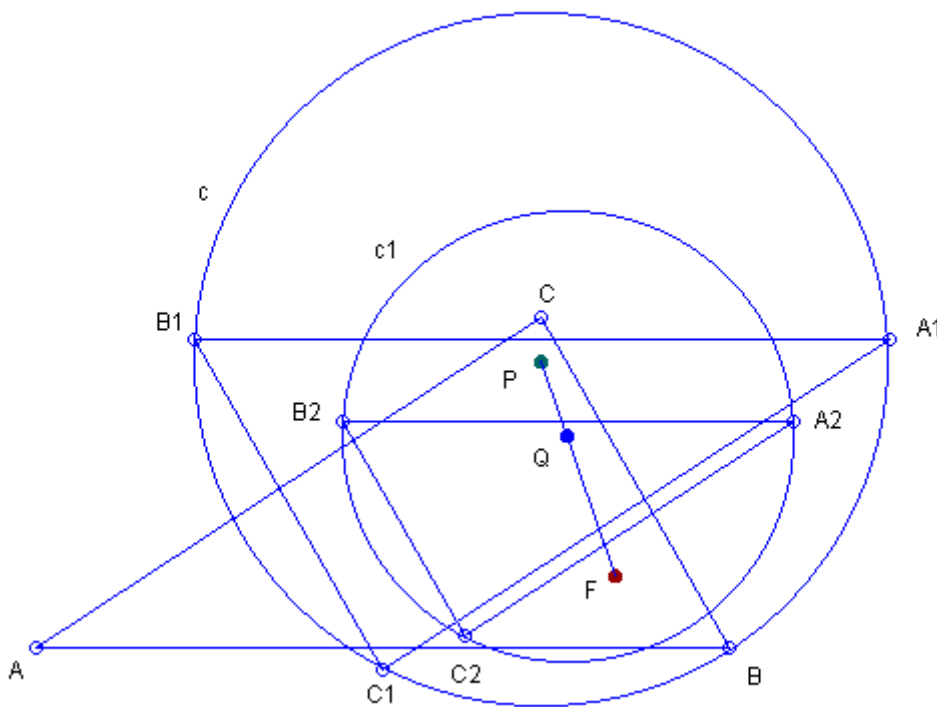
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Prove the following computer-generated theorem:

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

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

See the Figure:

$A_1B_1C_1$ - Johnson Triangle;

circle c - Circumcircle of the Johnson Triangle;

P - Circumcenter of the Johnson Triangle;

$A_2B_2C_2$ - Outer Yff Triangle;

circle c1 - Circumcircle of the Outer Yff Triangle;

Q - Circumcenter of the Outer Yff Triangle;

The Feuerbach Point F is the External Center of Similitude of the Circumcircle of the Johnson Triangle and the Circumcircle of the Outer Yff Triangle.

References

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