

Problem 8.

The Feuerbach Point lies on the Pedal Circle of the Mittenpunkt

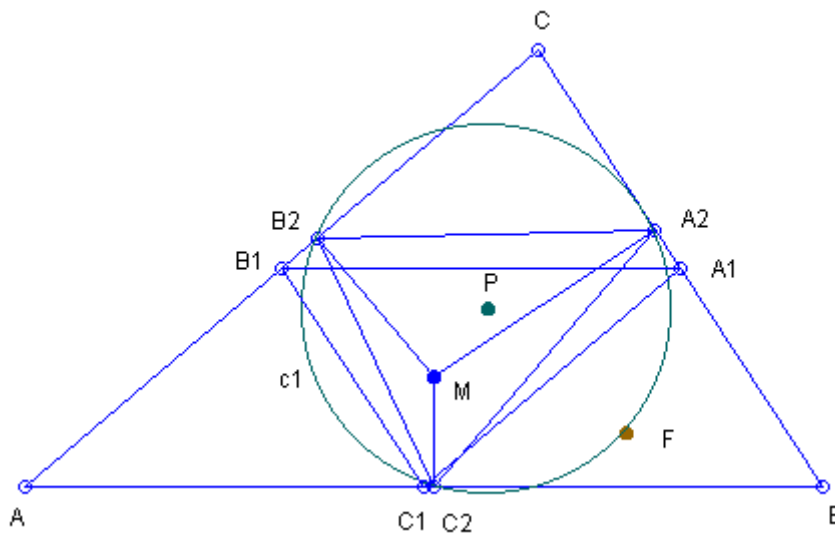
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Prove the following computer-generated theorem:

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

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

Given a point, the pedal circle of the point is the circumcircle of the pedal triangle of the point. The Mittenpunkt is the Gergonne Point of the Medial Triangle. See the Figure:



$A_1B_1C_1$ - Medial Triangle;

M - Mittenpunkt = Gergonne Point of the Medial Triangle;

$A_2B_2C_2$ - Pedal Triangle of the Mittenpunkt;

circle c_1 - Pedal Circle of the Mittenpunkt = Circumcircle of the Pedal Triangle of the Mittenpunkt;

P - Center of the Pedal Circle of the Mittenpunkt;

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

References

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