X(37747) = THE ISOGONAL CONJUGATE OF X(22900)



Geometrical construction of X(37747):

Let ABC be an arbitrary triangle, A' be the reflection of A with respect to side BC, similarly construct B', C'. Erect equilateral triangles $AC_A C'$, $BC_B C'$ on the sides of AC', BC' with apex as C_A , C_B respectively, similarly Erect equilateral triangles BA_BA' , CA_CA' and CB_CB' , AB_AB' on the sides BA', CA' and CB', AB' respectively.

Let $F_A=C_AC_B\cap B_AB_C$, $F_B=C_AC_B\cap A_BA_C$ and $F_C=B_AB_C\cap A_BA_C$

The triangle F_AF_BF_C is perspective with the triangle ABC and perspector is " X(37747)"

X(37747) = THE ISOGONAL CONJUGATE OF X(22900)

The barycentric coordinates of this point is as follows

a^2/(a^2 (2 S + Sqrt[3] b^2) (2 S + Sqrt[3] c^2) - Sqrt[3] (Sqrt[3] S + SB) (Sqrt[3] S + SC) ((2 S + Sqrt[3] a^2)))::

Search number of 6-9-13 triangle for this point is

 $1.752285613002971681007479615312675410585528944448367.\ldots$

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