Vu Thanh Tung

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Theorem. Let $\triangle A_{1} B_{1} C_{1}$ be the cevian triangle of a point $P$ with respect to $\triangle A B C$. Let $A_{2}$ be the point, other than $A$, that circles $(A B C)$ and $\left(A B_{1} C_{1}\right)$ intersect. Define $B_{2}, C_{2}$ cyclically. Let $A^{\prime}=B B_{2} \cap C C_{2}$ and define $B^{\prime}, C^{\prime}$ cyclically. Then:

1. $A A^{\prime}, B B^{\prime}, C C^{\prime}$ are concurrent.
2. $A_{2} A^{\prime}, B_{2} B^{\prime}, C_{2} C^{\prime}$ are concurrent.


Vu Thanh Tung, 250 Quang Trung, Nam Dinh city, Vietnam E-mail address: tungvtt@gmail.com

