## The Tie Theorems

Krutovskiy, Roman

Theorem. There are general position points $A, B, C, P$ on the projective plane. Let $A \_P$ be the intersection point of lines $A P$ and BC. Analogously define B_P and C_P . Take any points A_1, B_1, C_1 on AP, BP, CP, respectively. Let WC be the intersection point of $A \_1 B \_P$ and $B \_1 A \_P$. Analogously define points WA and WB. Then lines CW_C, AW_A and BW_B pass through one point. I also generalized this theorem and found interesting related properties. I found and proved all these theorems in this year.

