1052-30-205 **Ewa Kozlowska-Walania*** (retrakt@math.univ.gda.pl), ul. Wita Stwosza 57, 80-952 Gdansk, Poland. *Pairs of symmetries of Riemann surfaces.*

As it is known, symmetries of compact Riemann surfaces correspond to the real forms of smooth projective irreducible complex algebraic curves whose number of connected components equals the number of ovals of symmetries. Therefore, one can study topology of real forms of complex algebraic curves by means of Riemann surfaces and their symmetries, using theory of Fuchsian and non-euclidean crystallographic groups. We focus our attention on qualitative studies on Riemann surfaces of genus $g > 1$ having a pair of non-commuting symmetries. We recall the minimal, with one exception in any genus $g > 2$, lower bound for g, which guarantees the commutativity of the symmetries and we make its further study, leading to some more general results concerning non-commuting $(M - q)$- and $(M - q')$-symmetries with the product of order 2^n. Throughout we take into account the fixed-point free symmetries and give a "comparative analysis" to the case of symmetries with fixed points, filling this way some gaps existing in literature. (Received August 28, 2009)