1054-01-128 Paul R. Wolfson* (pwolfson@wcupa.edu), Department of Mathematics, West Chester University, West Chester, PA 19383. Resolvents of Polynomial Equations. Preliminary report.

In 1771 Lagrange published an analysis of the known methods of solving polynomial equations of degrees two, three, and four, showing how all of these methods could be understood in terms of resolvents of the equation, certain polynomials in the equation's roots. Lagrange's work influenced Abel and Galois, but it also contributed to a parallel line of research, on resolvents, that runs through the nineteenth and twentieth centuries up to today. I will present some background on resolvents and will give some reasons why mathematicians continued to study resolvents after major questions about solvability had been answered. (Received September 10, 2009)