1056-30-2128 **Alip Alifu, Maimaiti Mohammed*** (`alipm@math`), Department of Mathematics and Statistics, York University, 4700 Keele St, Toronto, ON M3J 1P3, Canada. *Poisson Equation with the Robin/Third Boundary Condition.*

The inhomogeneous Robin/third boundary condition with general coefficient for the Poisson equation on the unit disc is studied in terms of holomorphic functions using Fourier analysis. It is shown that against the usual expectations this problem cannot have a unique solution unless the coefficient of the first order term in the boundary condition is a constant. For the case of general coefficient, it is actually a problem with essential singularity in the domain, but still well-posed under proper assumptions and the unique solution can be given explicitly. Our study demonstrates clearly what assumptions about the coefficients of the boundary condition are natural to impose. (Received September 23, 2009)