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K. J. Mourad* (kjm57@georgetown.edu). *100 Years of Mathematical Logic: From Philosophy to Mathematics (and Back Again?)*.

One hundred years ago the first version of the famous Lowenheim-Skolem was proved. Although there was much work in formal logic up to that point, it can be argued that this result sets the stage for many ideas and results in model theory. Gödel's completeness and incompleteness result make much more coherent sense given this setting. In addition further work by Skolem, arguably just as important, set the stage for the construction of the Nonstandard Reals. This roughly corresponds to the Completeness Theorem of Gödel.

This is paralleled by Church and Turing's work for incompleteness. Using documents recently uncovered in the Church Family Archives in The Hudson Historical Society in Hudson, Ohio (also containing historical information about Church's interest in genealogy) will show how strongly Church felt that his work and the work of his student Turing be recognized as rigorous mathematics to be treated not only with the same regard as other mathematics but indeed provide a more rigorous foundation for mathematics as far as was possible (although he was forced to temper his ambitions as we know all too well.) Tracing the Church line we find it goes back directly to Leibniz and that the Lambda Calculus a natural successor of Leibniz's *characteristica universalis*. (Received January 20, 2015)