



CELEBRATING WOMEN IN MATHEMATICS

EMMA MARKOVNA TROTSKAIA LEHMER

1906- , Russia - The Russian revolution, which began in 1917, led to a large influx of Russian refugees to Harbin. After completing her studies in Harbin, Lehmer decided to go to the United States for her university studies.

She graduated from Berkeley University with an Honours B.A. degree in Mathematics in 1928 and in the same year she married Dick Lehmer.



While Dick worked on his Ph.D. at Brown University, Emma continued worked at the same time on her Master's Degree while she helped Dick by typing his thesis and working with him reading mathematics papers. She also helped the family finances by coaching mathematics. She received her Master's Degree in 1930 for a thesis entitled *A Numerical Function Applied to Cyclotomy* and in the same year the results were published in the *Bulletin of the American Mathematical Society*.

She wrote approximately 60 papers on different aspects of number theory, about 20 of these being joint publications with her husband. In fact their collaboration began as a three way endeavor with Emma working with both her husband and her father-in-law. In addition to deep mathematical results, their work involved developing and applying computer and computational methods to assist in solving number theory problems.

One topic which especially interested Lehmer was that of reciprocity laws. She corresponded with Helmut Hasse on the topic and he encouraged her to publish her article *On the Quadratic Character of Some Quadratic Surds* in Crelle's Journal in 1971.

This year, Lehmer celebrates her 100th birthday.

Biography courtesy of The MacTutor History of Mathematics archive