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A career in mathematics

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I can only describe myself as a part-time scientist, if a pure mathematician can be called a scientist at all. I decided to write about my experiences because they perhaps represent those of a section of women of my era.

In school and college I was considered a bright student and won, without much effort, the middle school and high school scholarships given by the government. One of my high school teachers, Mrs Kamat, who loved me, had noticed early on that I suffered from a lack of ambition. She also noticed that some other students, who were very ambitious, worked hard and would strive to get a better rank, whereas I was happy-go-lucky. I was interested in studying mathematics. I was advised that the maths courses in science as well as arts streams were the same and M.A. (maths) and M.Sc. (maths) were valued equally; so I should join for the arts stream and not waste my time doing physics and chemistry practicals in the afternoons. I could devote time to other hobbies like reading and painting. So that is what I did. The other subjects I studied in the first two years of college were world history, economics, civics and Sanskrit. I enjoyed them all. Later on however, I realized that though I enjoyed studying pure maths, I was not familiar with a lot of applications of maths because I had not studied physics enough. I would now advise anyone who wants to

study maths to choose M.Sc. with maths as it also includes studying physics at a respectable level.

I joined the school of mathematics at T.I.F.R. for research. However, even while I was studying for the M.A., my family was pressing me to get married. Soon after a girl was twenty, she was expected to get married and raise a family. Just after I was promoted to be a research associate at the School of Maths, I got a good proposal and I decided to accept it. I had accepted the philosophy of my parents, namely, that the first priority for a young lady should be the family and her spare time can be used for any study or hobby.

After marriage, we moved to Cambridge, England, where my husband was working at the time. Fortunately, my husband, a well-known astrophysicist, respected my wish to study mathematics although he too did not wish me to prioritize career over the family. In Cambridge, I attended some graduate lecture courses and also taught a course and supervised some undergraduate students. But my research had come to a stop. I was busy setting up a home, experimenting with cooking, enjoying a good social life and traveling. Later, our two daughters were born in Cambridge.

However, when we came to settle down in India, my husband became a professor in T.I.F.R. and we got accommodation just across the street from T.I.F.R. That was a lucky break for me. It was not difficult to visit the school of mathematics again and pick up the threads of maths research in my spare time. I started attending lecture courses and working in Professor Ramachandra's group on analytic number theory. I did not have to waste time commuting as many people in Mumbai do. With aging parents-in-law and two small daughters to care for, my work was slow and by the time my thesis was completed and a Ph.D. was awarded to me, our third daughter had arrived.

I worked as a pool officer in T.I.F.R. for a couple of years and published a few papers. I taught maths at the University of Bombay which had by this time moved to a northern suburb, very far away from T.I.F.R. So I went once a week as a guest lecturer and gave two lectures to M.Phil. students. In 1989 we moved to Pune, and here too, I worked as a part time teacher at the depart-

ment of mathematics at Pune University.

In retrospect, I feel that I should have striven harder and continued my research all through. The main problem, as my old teacher noticed, was my lack of ambition. So I cannot blame anyone else. But times are changing fast. My youngest daughter, Leelavati, used to be disappointed when she came back from her primary school if I was lecturing at the university and was not at home to welcome her. But the same girl after about four or five years started saying that the mothers of all her friends had jobs and worked all day, so why didn't I do the same! We have three daughters and they all are now following their careers in spite of family responsibilities. The eldest is a professor of biochemistry and the other two do research in computer science. They have very busy lives and the full support of their husbands.

I must mention that although I missed being a full time scientist, I did enjoy housekeeping, bringing up children and watching them grow, as also sewing clothes for them, cooking, and traveling. I was able to spend a lot of time for and with my family. As I grew older I realized that I enjoy teaching maths to bright students as well as those who are afraid of it. It is rewarding to help school kids to understand and enjoy mathematics which is often a dreaded subject. So I wrote a book on how to make mathematics interesting and accessible to students who are scared of it.

My story is perhaps a representation of the lives of many women of my generation who are well educated but always put household responsibilities before their personal careers.