The Elusive "Mr.Math" Shwetha Ram

hen I received an email from Giridhar of Azim Premji Foundation that the forthcoming issue of their newsletter Learning Curve was all about Mathematics, two words instantly popped into my head -Love... and... Hate! And I was pleasantly surprised when I read further on that Learning Curve would like me to narrate my (rather choppy) ride with this intriguingly abominable subject called Math.

My earliest memories of Math were in kindergarten and first grade. I could not understand the concept of numbers, PERIOD! One and two should buckle my shoe, so where did three come from?

While my peers always brought in their completed workbooks, I struggled to comprehend numbers and a vague concept called counting. My poor mother relentlessly tried to make me count with my fingers that I thought were meant only for eating with. Unable to understand the why of it, I often resorted to copying at class tests and I must have been fairly good at that because I was reprimanded very few times (or did my kind teachers turn a blind eye seeing how Math challenged I was?)

Come grade 5, and a sense of grown-up honesty took over. I decided to rough it out and not cheat in exams. Result - I barely managed to scrape through. The mean Math yanked down my overall scores in every exam cycle. I distinctly remember one of my class teachers calling out the final grades at a half yearly exam and announcing that I stood last-but one in my class of 41 students. I smiled to myself at the thought that there was one soul actually worse off than I. My joy was short lived - she hurriedly qualified her statement with "Ram Kumar had to skip two of his exams as he was down with Malaria", so we could not technically give him a final score!"

By 6th grade, I square rooted to the bottom of my class and seemed stuck there for eternity. By then, my parents and my grand parents had tried every bribe in the book to help me get better, without much result. My weakness in Math seemed contagious, as it soon spread to my performance in other subjects as well. And at this point, school spelled hell for me. I was never a good with memorizing stuff (I still struggle to remember my phone number), so I didn't know how to approach Math. Should I memorize the complex formulae?



Should I remember Geometry theorems by rote? Was there a trick to work through those numbers that my peers seemed to be breezing through?

My uncle who came up with a hare brained scheme - he offered me a holiday in Goa if I got decent marks in Math. But he ended up doing something more sensible around that time. He... Got... Married! We were all in a joint family back then and his lovely bride, turned out to be the best teacher, mentor and companion I could ever ask for. She magically understood my struggle with the subject and devised a workable way out of the abyss. She would take a Math problem and not solve it for me. Instead, she would explain the logic and let me decipher the code and in the process we would solve it together. She introduced a sense of logic to my approach to Math, and that opened a whole new world for me. Seeing things logically meant that I did not have to learn things by rote. All I had to do was to understand and attack the root of the problem and then let logic guide me through. Her mentoring resulted in the beginnings of a tolerance that progressed to a comfortable co-existence with the subject. I finally started enjoying the number game.

> Mrs. Srimathi my teacher had what seemed like an unrelenting approach to teaching. She had this weird theory of "do a 500 Math-problem marathon, and for the 501st problem you attack, your pen will do the thinking!" Sounds crazy - but for me it worked like a charm!

Alongside, I also started developing a taste for some aspects of the subject Geometry especially turned out to be

interesting. Each time I reached a mental block with arithmetic while studying for exams, I would switch gears to doing Geometry. That little break always proved to be a stress buster. When I went back to the tougher side of Math, I would automatically approach the problem with more clarity in my thinking and renewed vigor.

By the time I got to 10th grade, my performance had improved by leaps and bounds. But the Math got MUCH tougher, with Trigonometry, Complex Algebra, Differentiation and Integration thrown into the formidable mix. Was Math going to turn vicious all over again?

Luckily I met a teacher who changed my life. Mrs. Srimathi, my teacher had what seemed like an unrelenting approach to teaching. She had this weird theory of "do a 500 Mathproblem marathon, and for the 501st problem you attack, your pen will do the thinking!" Sounds crazy - but for me it worked like a charm! In lay man terms, Srimathi simply convinced us that plain hard work would get us results every time; you do not need to be particularly gifted to progress in studies. Can I see raised eyebrows as I narrate the Srimathi formula? Well, it worked for me.

This was a turning point in my life. As my scores improved, the confidence rubbed off on other subjects too. Also, once you taste the sweetness of success, it is very difficult to let go of it!

One also starts to create his/her own study techniques while studying so hard. A personal favorite of mine was that I would set up a ridiculously aggressive study timetable (1000 Integration/Differentiation problems in 4 hours flat!), knowing fully well that the timelines I set were certainly impossible to meet! But this indirectly helped me in stretching myself. A less severe or a practical schedule, I am sure would have made me slack some and not cover as much ground. This technique has come in handy in my professional life too. Stretch goals (goals that are beyond what is expected from ones work desk) are the ones that are best recognized during yearly performance reviews!

I unashamedly admit that I have never been one of those brainy ones. I was always and still am, what you would call an average student. However, I realized that there is one tool that no one can rob me of. That one tool, which I can use any time with guaranteed results. That one tool that will never let me down and that is plain HARD WORK.

Infact, by the time I finished school, it worked so well, that I decided to deal with numbers all my life and ended up choosing a profession in Finance, completing a Chartered Accountancy degree in India and then a CPA degree in the US. These days, when I am asked what my strengths are, I say without a moment's thought - Numbers, Logic and Hard work! So for me Math has been a long story that began with fear and then hate before finally ending in love. Math is akin to an Aubergine! You either love the vegetable, or completely hate it – there is no middle ground. I hope you enjoy your preferred line of study as much as I do pursuing mine.

Mathematically yours,

Shwetha Ram

Shwetha Ram is a senior R&D Finance Analyst at Boston Scientific, California. She has a CA degree from India followed by a CPA degree in the US. Alongside a profession in Finance she also actively pursues singing and volunteering for the San Francisco chapter of Udavum Karangal (a grass roots organization based in Tamil Nadu that runs an orphanage, a school for children and provides shelter to destitute in need of a helping hand). She can be contacted at <u>shwetha1709@yahoo.com</u>

