

A Medley of Recreational Mathematics

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- **Fun With Decimals.** The decimal expansion of rational numbers holds many secrets, some of which have been recently discovered while others continue to be discovered. I will take you through some of these.
- **Mathematical Card Tricks.** Card tricks have often been the realm of magicians – those with long and loose fitting robes. I will show you some card tricks that are intimately connected to Mathematics.
- **Mathematical Games.** Two player games like Chess do not submit themselves to mathematical machinery. However, there are games like NIM that do, and I will introduce several two player games and discuss winning strategies for these.
- **Mathemagic – Speed Computation.** As an amateur “mathemagician” still trying to learn the tricks of my trade, I will attempt to showcase my speed computation. I will also talk about my once-in-a-lifetime meeting with the human calculator Shakuntala Devi almost four decades ago.



About the Speaker. Amitabha Tripathi studied Mathematics at St. Stephen’s College, University of Delhi, IIT Kanpur & State University of New York at Buffalo, from where he obtained a Ph.D. under the supervision of Prof. T. W. Cusick a little over three and a half decades ago. His research interests lie in elementary and combinatorial aspects of Number Theory, in combinatorial aspects of Graph Theory, and more recently, in Ramsey Theory and in Numerical Semigroups. Prof. Tripathi has been with the Department of Mathematics at IIT Delhi since July 1991, where in addition to teaching a wide variety of courses, he has mentored and helped guide research among undergraduate students that has led to several fruitful collaborations. Outside of Mathematics, he enjoys listening to old Hindi film songs, playing Table Tennis, solving crosswords and performing speed calculations, in that order.