Editorial

B Sury, Associate Editor

What does one say of a man who discovers by himself at the age of 12 that the angles of a triangle add up to two right angles and proves at the age of 16, a beautiful theorem on hexagons incribed in conics which pioneers projective geometry; who lays the foundation to probability theory; whose work crucially influences Leibniz to come up with his own work in calculus; whose work on pressure exerted by liquids leads to a fundamental law in science; who invents at the age of 18, the first calculating machine; who demonstrates the first example of a fundamental pattern of reasoning known as mathematical induction and, who dies at the age of 39, abandoning science after getting obsessively involved in matters of human salvation and suffering and regards the pursuit of science as vanity which has derogatory effects on the soul ? Some refer to him as the greatest might-have-been. This is Blaise Pascal whose portrait appears on the back cover.

Resonance, in these eight years, has reached a stage where the acceptance rate of articles is as low as 15 percent. Of late, it is gratifying to see that quite a few college teachers and even students have started contributing meaningfully. Although the levels of many articles are higher than what is desirable, it seems difficult to bridge this gap in the near future because of the huge difference between the level at which the sciences (especially mathematics) are taught at high school and undergraduate courses and cutting edge research.

The classroom notes are by far the most accessible articles and, in this issue, there are three of them. Krishna Athreya writes about generalising an olympiad problem to the maximum principle; ironically, this olympiad problem itself originated from the maximum principle ! K P Ramakrishnan points out the shortcomings of the usual proof using integration of the fact that circumference of a circle is pi times its diameter given in textbooks. The chemistry classroom discussion emphasizes the effect of titrated volume in potentiometric titrations. Nature Watch has always been the most popular section and, here Sindhu Radhakrishna traces the social behaviour of the slender Loris, a nocturnal prosimian found in India. She recounts the story of the various perils which threaten its existence and drive it towards gradual extinction. Nalini Chakravarti introduces us to the rarefied atmosphere of Levy flights, a term coined by Mandelbrot, which is a natural generalisation of Brownian motion in the presence of strong fluctuations. S Das talks about the fascinating area of NMR spectroscopy and N Pon Saravanan draws attention to indoor air pollution. U Mishra and D W Dhar analyse biodiversity and the biological degradation of soil. P Bharadwaj gives us an overview of the working of a router in internet work.