Our Readers Write ...

In the August 2006 issue of *Resonance*, Utpal Mukhopadhyay had written an article 'Some Interesting Features of Hyperbolic Functions' (pp.81-85). This note is to point out the following:

(i)   The author has not specified the domains of any of the functions discussed in the article.

(ii) He proves that *any point* on the rectangular hyperbola $x^2 - y^2 = 1$ can be represented in parametric form $x = \cosh\theta$, $y = \sinh\theta$. This is not true. In fact no point on the *left branch* of the R.H can be represented in that form, since $\cosh\theta \geq 1$, $-\infty < \theta < \infty$. Any point on the curve represented by the equations $x = \cosh\theta$, $y = \sinh\theta$, $-\infty < t < \infty$ satisfy the equation $x^2 - y^2 = 1$, but not conversely.

(iii) In page 85, he considers $\cosh x \approx 1 + (x^2/2!)$ and writes *the right side* represents a parabola. For a young reader this may be confusing. This would have been clearer if he had written that the (graph of the) function $y = 1 + (x^2/2!)$ represents a parabola.

15 September 2006

<div align="right">

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Response from the Editor:

(i)   Strictly speaking, it is necessary that the domains of functions be mentioned. In this article, almost all the functions that are referred to are real functions, i.e., they are defined on the entire real line.

(ii) The left branch of the hyperbola may be represented by the parametric equation $x = -\cosh\theta$ and $y = \sinh\theta$, θ real.

I was very much impressed (and what is more important, enlightened) by the article on Monsoon in *Resonance*, August 2006. I am looking forward to subsequent articles in the series. I visited the tropmet website but could not find the historical records of rainfall in India on it.

31 August 2006

Arun Vaidya
Ahmedabad

★★★★★★★★

I read the article 'The Timeless Legacy of Robert Koch', (September 2006). I was very much impressed by it. The simple English was understandable and it contained very useful information

Thanking you for such an article.

28 October 2006

Sri Vastav
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★★★★★★★★

I read the editorial (November 2006) on the Poincaré Conjecture and Perelman–Hamilton issue with great interest. Of course, the mathematics there is beyond my reach. As one who posts his research on the arxiv.org first, I was a bit surprised by your remark that Perelman was taking a great risk by posting his research on the arxiv. Even more shocking was the article 'Manifold Destiny – a Legendary Problem and the Battle Over it' in *The New Yorker* referred to. I am disappointed to note the unethical ways of some of these mathematicians to get priority and thus fame. It is no surprise then that Dr. Perelman has cut all his links with other mathematicians, though unfortunate The article in *The New Yorker* also suggests that all is not lost in scientists' professional ethics.

29 November 2006

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