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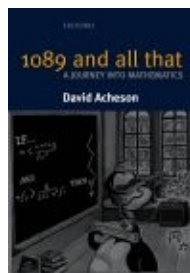
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January 2003

Reviews

## '1089 and all that'

reviewed by Helen Joyce



### 1089 and all that – a journey into mathematics

Since the phenomenal success of "The little book of calm", publishers have been falling over themselves to produce "little books" of everything else, presumably in the hope that the essential ingredient was the littleness, rather than the calmness. Although, at 5 inches by 7¼, "1089 and all that" makes a rather big little book, and its content couldn't be further from the banalities of "The little book of calm", there is something of a "little book of mathematics" about it, with its short chapters and personal narrative.

The title comes from a simple arithmetic magic trick which entertained the author as a child – seemingly different sums that always give the answer "1089". The trick is not difficult, but it is the inspiration for a wonderful book in which mathematics is presented as a game and an adventure, irrespective of whether it is elementary or advanced. For David Acheson, the "elements of mystery and surprise run through a great deal of mathematics at its best", and accordingly he takes us on a journey "from first steps to the frontiers" aboard the "Mathematics Express".

One of the nicest things about the book is the plentiful illustrations – the publishers must have had someone working fulltime just on getting permission to reuse the entertaining cartoons, let alone producing original material. They add to the sense of lightheartedness and fun that runs all through the book, reinforcing the personal stories and palpable pleasure in the beauty of mathematics.

My favourite of these stories concerns the "secret of all life". The author tells us that when he was a child, one of his teachers would set the same biology test for his class each week, starting with simple questions such as "how many legs does a spider have?" and working up (alarmingly quickly!) to "what is the secret of all life?!"

## '1089 and all that'

Apparently, the correct answer was "chlorophyll" but even as a child, this did not satisfy Acheson, and although he feels no more qualified to answer it now than he did then, his candidate answer – "differential equations" – is as good as any, and better than most.

Acheson also explains the concept of proof, discusses wrong conjectures (including ones by very distinguished mathematicians such as Euler), and gives an account of his three minutes of fame on the BBC programme "Tomorrow's World", when he presented his linked–pendulum version of the Indian Rope trick.

Who would like this book? Absolutely anyone. It is so nicely written, so charming, and so entertainingly lighthearted, that it is an absolute little gem.

### **Book details:**

*1089 and all that – a journey into mathematics*

David Acheson

hardback – 184 pages (2002)

Oxford University Press

ISBN: 0198516231



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