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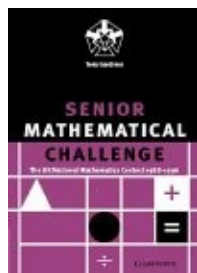
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May 2002

Reviews

'Senior mathematical challenge'

reviewed by Helen Joyce



The UK National Mathematics Contest 1988–1996

As Tony Gardiner says in at the beginning of this book, "the last ten years or so has seen a remarkable blossoming of public interest in mathematics [but] most of the books produced have been for adults, rather than for students. Moreover, most are in prose format – for those who want to 'read about' mathematics, rather than those who want to get their hands dirty solving problems."

There is only so far a student or teacher can go reading about maths – maths is not primarily a spectator sport. But where to turn for really good, challenging problems? The preference of publishers for "new" books means that classic problem books – which in maths have a long shelf-life – are allowed to go out of print. Still, this book fills the gap nicely. It contains the National Mathematics Contest papers from 1988 to 1996, together with comments, hints and full solutions. The problems are multiple choice in format, and are aimed at students aged 15 to 18. In the solutions, Gardiner deliberately sticks to techniques that GCSE students should already know, eschewing "slick" solutions in favour of ones that will not discourage beginners.

Clearly this book will be of use as practice material to those intending to sit the paper in the future, but it could also be used as a source of challenging and interesting problems – for homework or for the sheer joy of intellectual mastery. A useful feature is a list of books of problems and puzzles and books which cover mathematical material in a readable way.

So what are the problems like? Here are two chosen pretty much at random:

How many planes of symmetry does an octahedron possess?

'Senior mathematical challenge'

- A 3
- B 5
- C 8
- D 9
- E 12.

How many letters are there in the correct answer to this question?

- A one
- B two
- C three
- D four
- E five

If you like these, now you know where to find lots more.

Book details:

Senior Mathematical Challenge – the UK National Mathematics Contest 1988–1996

Tony Gardiner

paperback – 184 pages (2002)

Cambridge University Press

ISBN: 0–521–66567–1



Plus is part of the family of activities in the Millennium Mathematics Project, which also includes the NRICH and MOTIVATE sites.