involved solving an equation for x, giving the answer in terms of a parameter p; and the squaring of each side (twice, in fact) meant that the solution should have been checked. Many school pupils will know that, for example,

$$\sqrt{x} = 2 - x \Rightarrow x = 4 - 4x + x^2 \Rightarrow x = 1 \text{ or } x = 4$$

is perfectly logical, but that only one of these values is a root of the given equation, because the argument is not reversible. In the case of the IMO question, a check would have revealed a restriction on the possible values of p, and hence on the final answer. Another question, this time from the 1968 IMO, was incomplete: the original question was in 3 parts, but the authors just gave the easiest part, without comment.

A quirky use of language and terminology permeates the book, although the intended sense is clear throughout. Thus, on page 77, we find a *circumference* being drawn though points O, P and Q; and later we find AB defined as the *diameter of the circumference*. On page 5, we read that the sum of two real numbers is commutative, rather than that real numbers are commutative under addition. And this statement appears on page 100: '*If* there is a fixed point different from 1, *hence* there is a fixed point greater than 1' (my italics).

Despite its oddities and small number of defects, the book conveys a certain mathematical *joie de vivre*, and I can well imagine an inquisitive pupil being drawn in and fired up by some of the cleverly constructed problems and solutions.

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BOOKS RECEIVED

The appearance of a title in this list does not preclude the possibility of a review in a future edition of the *Gazette*.

Analytic Capacity, the Cauchy transform and non-homogeneous Calderon-Zygmund theory by Xavier Tolsa, pp. 396, £85.50 (hard), ISBN978-3-319-00596-6, Birkhaüser (2014).

Boolean Representations of Simplicial Complexes and Matroids by John Rhodes and Pedro V.Silva, pp. 173, $109 (hard), also available as e-book, ISBN 978-3-319-15113-7, Springer Verlag (2015).

The Cauchy problem for non-Lipschitz semi-linear parabolic partial differential equations by J.C.Meyer and D.J.Needham, pp. 167, £44.99 (paper), ISBN 978-1-107-47739-1, Cambridge University Press (2015).

Circular Statistics in R by Arthur Pewsey, Markus Neuhauser and Graeme D.Ruxton, pp. 184, £24.99 (hard), ISBN 978-0-19-967113-7, Oxford University Press (2013).

Cox Rings by Ivan Arzhantsev, Ulrich Derenthal, Jürgen Hausen and Antonio Laface, pp. 530, £50.00 (hard), ISBN 978-1-107-02462-5, Cambridge University Press (2015).

Exploring mathematics with integrated spreadsheets by Sergei Abramovich, p 284, £65.00 (paper), ISBN 987-98146-8990-8, World Scientific (2015).

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Fourier Analysis edited by Michael Ruzhansky & Wille Turunen, pp. 415, £108.00 (hard), ISBN 978-3-319-02549-0, Birkhauser (2014).

Inequalities for graph eigenvalues by Zoran Stanić, pp. 298, £55.00 (paper), ISBN 978-1-107-54597-7, Cambridge University Press (2015).

An introduction to nonlinear finite element analysis by J.N.Reddy, pp. 687, £70.70 (hard), ISBN 978-0-199-64175-8, Oxford University Press (2015).

Introduction to random graphs by Alan Frieze and Michał Karoński, pp. 464, £49.99 (hard), ISBN 978-1-107-11850-8, Cambridge University Press (2015).

***L^2* approaches in several complex variables** by Takeo Ohsawa, pp. 196, $89.99, (hard), also available as e-book, ISBN 978-4-431-55746-3, Springer Verlag (2015).

Local homotopy theory by John F.Jardine, pp. 508, $129 (hard), also available as e-book, ISBN 978-1-4939-2299-4, Springer Verlag (2015).

Motivating mathematics by David Wells, pp. 289, £22 (paper), ISBN 978-1-78326-753-8, Imperial College Press (2016).

Non-commutative multi-valued logic algebras by Lavinia Corina Ciunga, pp. 292, £85.50 (hard), ISBN 978-3-319-01588-0, Springer Verlag (2014).

Probabilistic graphical models for genetics, genomics and postgenomics edited by Christine Sinoquet and Raphael Mourad, pp. 449, £85.00 (hard), ISBN 978-0-198-70902-2, Oxford University Press (2014).

Simplicity theory by Byunghan Kim, pp. 224, £49.99 (hard), ISBN 978-0-19-856738-7, Oxford University Press (2014).

Stability of functional equations in Banach algebras by Yeol Je Cho, Choonkil Park, Themistocles M.Rassias and Rerza Saadati, pp. 326, $129.00 (hard), also available as e-book, ISBN 978-3-319-18707-5, Springer Verlag (2015).

Theory of third-order differential equations by Seshadev Padhi & Sminta Pati, pp. 507, £85.50 (hard), ISBN 978-81-322-1614-8, Springer Verlag (2014).

Value functions on simple algebras and associated graded rings by Jean-Pierre Tignol and Andrian R.Wadsworth, pp. 643, $149.00 (hard), also available as e-book, ISBN 978-3-319-16359-8, Springer Verlag (2015).

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