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THE FIRST RESOURCE FOR MATHEMATICS

Adams, Colin

Lost in the math museum. A survival story. (English) Zbl 1498.00003

Anneli Lax New Mathematical Library 55. Washington, DC: The Mathematical Association of America (MAA) (ISBN 978-1-4704-6858-3/pbk). xi, 209 p. (2022).

Somewhat in the style of his previous book [*C. Adams*, Zombies and calculus. Princeton, NJ: Princeton University Press (2014; Zbl 1307.00008)], Adams mixes accessible mathematics with a scary-adventure story.

A young girl and three adult mathematicians visit a math museum with a very flexible space-time topology. They meet historic mathematicians, stay in a Hilbert hotel, but they are also chased by a massive hairy ball, are attacked by a chainsaw-like Weierstrass function, and have to escape from a room with an expanding space-filling curve.

It requires a flexible reader to accept some transition from one adventure to the setting of the next one as they are described in 23 chapters. Of course it is all about introducing mathematical topics to the girl. For the reader, more explanation is given in the corresponding chapters in the second half of the book, accompanied with a set of exercises. Some of the latter are trivial, but some require guidance to solve since no solutions are provided.

The mathematical subjects are the usual ones from popular math books like the Monty Hall and Russell paradox, prime numbers, the ham-and-sandwich theorem, the pigeon hole principle, the travelling salesman problem and random walks, but also the Riemann hypothesis, some topology, public key encryption and many more. So these are slightly more advanced than the calculus of the zombie-book.

Readers who love mathematics will love this book. Whether it will convert the haters is questionable, but that holds for any of the popular math books. This mixture of a well written adventure story and popular mathematics is a deserving attempt that, with some guidance, can challenge and trigger the interest of secondary school students.

Reviewer: Adhemar Bultheel (Leuven)

MSC:

00A09 Popularization of mathematics
00A05 Mathematics in general
00A15 Bibliographies for mathematics in general
00A64 Mathematics and literature

Keywords:

mathematical fiction; recreational mathematics; Hilbert hotel; paradox; traveling salesman; Monty Hall; hairy boll; quadratics; prime numbers; Weierstrass function; ham and sandwich theorem; pigeon hole principle; RSA encryption; topology; trigonometry; history

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