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The heart of mathematics. An invitation to effective thinking.

Emeryville, CA: Key College Publishing in cooperation with Springer. xxvi, 646 p. DM 130.00; öS 949.00; sFr. 118.50; £45.00; \$ 69.95 (2000).

I really like such nice mathematics books. This was by far the best math book I have ever had. It provides a new way to connect in depth with real mathematics, without doing a lot of computation, and to see real mathematics in truly new ways. The authors said: “We wrote this book to be read”. They really try to make this book more interesting. In this book, the reader will see that mathematics is a network of intriguing ideas – not a dry, formal list of techniques and formulas. Many attractions are designed – a kit for grasping concepts hands-on, jokes, 3D pictures and glasses, and a style of presentation to help to discover new ideas. This book emphasizes basic strategies of thought and analysis. Most of all, this book contains intriguing lessons for thinking being very important in everybody’s life. The book consists of seven chapters: 1) Fun and games: an introduction to rigorous thought, 2) Number contemplation, 3) Infinity, 4) Geometric gems, 5) Contortions of space, 6) Chaos and fractals, and 7) Risky business. One of the main goals is to illustrate methods of investigating the unknown, regardless of where life it occurs. This attractive book contains a lot of well-known and interesting problems: prime cuts of numbers, travels toward the stratosphere of infinities, Pythagoras and his hypotenuse, the Platonic solids, symmetry, rubber sheet geometry, fractals, dimensions etc. It is really true that the ideas presented in this book are some of the most fascinating and beautiful ones around. More importantly, the exploration and presentation in most cases are fun – fun to read, fun to do, and fun to think about. The reader will have something to explore, to learn, to think, to enjoy, and to add a new aspect to his view of everything.

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Classification: A10 A80 A20