

3. GÉZA FREUD, *Orthogonale Polynome*, Birkhäuser, Basel, 1969; English transl., Pergamon Press, New York, 1971.

4. JA. L. GERONIMUS & G. SZEGÖ, *Orthogonal Polynomials*, Amer. Math. Soc. Transl. (2), vol. 108, Amer. Math. Soc., Providence, R. I., 1977, pp. 37–130.

5. PAUL G. NEVAI, *Orthogonal Polynomials*, Mem. Amer. Math. Soc., Vol. 18, No. 213, Amer. Math. Soc., Providence, R. I., 1979.

6. GABOR SZEGÖ, *Orthogonal Polynomials*, 4th ed., Amer. Math. Soc. Colloq. Publ., Vol. 23, Amer. Math. Soc., Providence, R. I., 1975.

2[9.00].—PAULO RIBENBOIM, *13 Lectures on Fermat's Last Theorem*, Springer-Verlag, New York, xi + 302 pp., 24 cm. Price \$24.00.

This book will surely become one of the classics on Fermat's Last Theorem. In a very readable style, the author summarizes most of the important work relating to FLT and tries to give the main ideas that go into the proofs. The research has been rather thorough, and each chapter concludes with a long list of references. Starting with the early work on degrees up to seven, and also the results obtained by "elementary" methods, the author then proceeds to Kummer's work. He then treats more recent work, for example that of Wieferich, Mirimanoff, Vandiver, and Krasner. Next, the reader is treated to a discussion of applications of class field theory, linear forms in logarithms, elliptic curves, and congruences. Also included is a discussion of topics that have appeared in this journal, such as the tables of W. Johnson and S. Wagstaff and recent conjectures concerning the distribution of irregular primes and of the index of irregularity. The book concludes with a sometimes light-hearted treatment of variations of FLT: polynomials, differential equations, nonassociative arithmetics, etc. Because of a lack of space, and to enhance readability, proofs are often omitted or only sketched. But the interested reader can always consult the references, or wait for the promised second, more technical volume to be published. Most of the text should be accessible to a mathematician with an undergraduate course in number theory, if certain sections involving algebraic number theory are omitted. Though writing on a subject notorious for its errors, the author seems to be fairly accurate. However, we note two minor mistakes: on page 82 and 98 the words "positive real unit" should be replaced by "real unit" since positivity will vary with the embedding into the reals; on page 208 the formula for the genus should have a 4 instead of a 5.

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3[10.35].—BERNARD CARRÉ, *Graphs and Networks*, Clarendon Press, Oxford, 1979, x + 277 pp., 23cm. Price \$36.50 (cloth), \$19.50 (ppr.).

This book is a rather unusual entry into the literature on graphs and networks. Its motivation comes from operations research and computer science; thus, its applications include, for instance, critical path analysis, dynamic programming and assigning memory space when compiling a computer program. Its viewpoint is algorithmic and algebraic.