REVIEWS AND DESCRIPTIONS OF TABLES AND BOOKS

The numbers in brackets are assigned according to the American Mathematical Society classification scheme. The 1991 Mathematics Subject Classification can be found in the annual subject index of *Mathematical Reviews* starting with the December 1990 issue.

13[65-06, 65N55].—W. HACKBUSCH & U. TROTTENBERG (Editors), *Multigrid Methods* III, Internat. Ser. Numer. Math., Vol. 98, Birkhäuser, Basel, 1991, xi+394 pp., 24 cm. Price $98.00.

This volume contains seven papers based on invited addresses and twenty-three papers selected from seventy-six papers presented at the conference. A complete list of titles of the rest of the papers presented at the conference is given at the end of the volume.

J. H. B.

14[65-06, 65N22, 65N30].—DAVID E. KEYES, TONY F. CHAN, GÉRARD MEURANT, JEFFREY S. SCROGGS & ROBERT G. VOIGT (Editors), *Domain Decomposition Methods for Partial Differential Equations*, SIAM Proceedings Series, SIAM, Philadelphia, PA, 1992, xiv+623 pp., 25 cm. Price: Softcover $74.00.

This volume contains papers presented at the Fifth Conference on Domain Decomposition Methods for Partial Differential Equations held in Norfolk, Virginia, in May of 1991. It consists of four parts. Part I, entitled "Theory", contains twelve papers, including analyses of so-called Schwarz methods, methods for nonselfadjoint problems and the biharmonic Dirichlet problem. The second part concerns algorithms and contains seventeen papers. Part III is about parallel implementation issues, with six papers on this subject. Finally, the last part contains nineteen papers on applications of domain decomposition methods.

J. H. B.

15[11D25, 11Y50].—KENJI KOYAMA, *Tables of solutions of the Diophantine equation* $x^3 + y^3 + z^3 = n$, 57 pages of tables and 3 pages of introductory text, deposited in the UMT file.

A computer search has been made for solutions of the equation $x^3+y^3+z^3 = n$ in the range $\max(|x|, |y|, |z|) \leq 2097151$ and $0 < n \leq 1000$. We have discovered 18 new integer solutions for $n \in \{39, 143, 180, 231, 312, 321, 367, 439, 516, 542, 556, 660, 663, 754, 777, 870\}$. As a result, there are 54 values of n (except $n \equiv \pm 4 \bmod 9$) for which no solutions are found. Table 2

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