

5[65F00].— IAIN S. DUFF (Editor), *Sparse Matrices and Their Uses*, Academic Press, London, 1981, xii + 387 pp., 23½ cm. Price \$43.50.

This volume is based on the proceedings of the IMA Numerical Analysis Group Conference, organized by The Institute of Mathematics and its Applications and held at the University of Reading, July 9–11, 1980. There are 13 invited and 8 contributed papers.

6[10A20].— PETER HAGIS, JR., *Every Odd Perfect Number Not Divisible By 3 Has At Least Eleven Distinct Prime Factors*, a hand-written manuscript of 46 pages deposited in the UMT file.

This manuscript contains the complete proof of the result stated in its title. The arguments employed are elementary but involve a large number of calculations and searches. These were carried out on the CDC CYBER 174 at the Temple University Computing Center. A sketch of the proof [1] appears elsewhere in this issue.

AUTHOR'S SUMMARY

1. PETER HAGIS, JR., "Sketch of a proof that an odd perfect number relatively prime to 3 has at least eleven prime factors," *Math. Comp.*, v. 40, 1983, pp. 399–404.