Chapters 4–11 treat the derivation of asymptotic expansions, both uniform and nonuniform, from various types of integral representations. Derivation of asymptotic series, both uniform and nonuniform, from homogeneous and inhomogeneous differential equations is taken up in Chapters 12–20. In Chapters 21–26, there is presented the theory of terminants, a topic related to the idea of converging factors. In this connection, it is known that in many cases approximations based on finite sections of asymptotic series can be weighted to produce converging series which are far more efficient than using a finite section of the asymptotic series up to and including the smallest term augmented by the portion furnished by the converging factor method. This aspect is not considered.

In summary, the volume contains a wealth of information. Though much of it is formal and error estimates are wanting, the tome is valuable for its many approximations and ideas.

Y. L. L.

41 [13.40].—MARTIN GREENBERGER, JULIUS ARONOFSKY, JAMES L. MCKENNEY & WILLIAM F. MASSY, *Networks for Research and Education: Sharing Computer and Information Resources Nationwide,* The M.I.T. Press, Cambridge, 1974, xv + 418 pp., 24 cm. Price $12.50.

This book presents the papers, discussions and analyses of three working seminars and twelve workshop reports held in late 1972 and early 1973 sponsored by NSF and conducted by EDUCOM. The seminars were designed to help identify the central issues in building and operating networks on a national basis. The term networks was used to designate "the more general set of activities and arrangements whereby computers and communications are used for extensive resource sharing by a large number of separate, independent organizations". The main area chosen was networking for research and education on the national level.

The seminar themes included:

1. User characteristics and needs–discussions on the way in which computing and information are used.

2. Organizational matters–discussions on topics of network management, institutional relations, user organizations and regional computing systems.

3. Operations and funding–discussions on computers and communications, software systems and operating procedures, applications development and user services and network economics and funding.

In an overview, the editors discuss highlights of the issues covered and present conclusions and recommendations of the seminars they feel were identified during the discussions. The conclusions presented are worth restating here:

1. Computer networking must be acknowledged as an important new mode for obtaining information and computation. It is a real alternative that needs to be given serious attention in current planning and decision making.

2. The major problems to be overcome in applying networks to research and education are political, organizational, and economic in nature rather than technological.

3. Networking does not in and of itself offer a solution to current deficiencies. What it does offer is a promising vehicle with which to bring about important changes in user practices, institutional procedures, and government policy that can lead to effective solutions.

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