BRIEF MENTION

Dictionary of conformal representations. By H. Kober. New York, Dover, 1952. 16+208 pp. $3.95.

This book is a compendium of standard conformal mappings intended for engineers and physicists. The mapping functions considered include: the linear fractional, rational, exponential, logarithmic and related functions, elliptic functions, modular functions. There is a section on the Schwarz-Christoffel transformations. A large number of illustrations (447) show the action of the maps treated on various geometric configurations.

MAURICE HEINS

RESEARCH PROBLEMS

13. R. Bellman: *Analysis.*

Determine

$$\text{Min}_{\phi} \; \text{Max}_{\theta} \; \sum_{n=0}^{N} e^{(in\theta + i\phi_n)}$$

where the ϕ_n are N independent real quantities. (Received December 9, 1954.)

14. R. Bellman: *Differential equations.*

Does the equation $u' + u = (u'')^2$ have a solution which approaches zero like e^{-t} as $t \to \infty$ for sufficiently small values of $u(0)$ and suitably chosen $u'(0)$? What is the general stability behavior of nonlinear systems of this type? (Received December 9, 1954.)

15. R. Bellman: *Number theory.*

The numbers $u_n = 2^{2^n} + 1$ satisfy the nonlinear recurrence relation $u_{n+1} = (u_n - 1)^2 + 1$. Can one utilize this relation to show that it is impossible for the elements of the sequence to be primes for all large n? (Received December 9, 1954.)