from a high evaluation of the book, conditioned only by the consider-
ations mentioned above.

ALEX HELLER

Introduction to complex analysis. By Zeev Nehari. Allyn and Bacon,
    Boston, Mass., 1961. 258 pp. $7.50.

It is generally hard to balance a course in complex variables be-
tween the theory for the mathematics students and the applications
for the engineers. Many universities solve this problem by giving two
separate courses. Nehari offers another solution which draws a happy
compromise between theory and applications. His book is designed
for a one semester course in complex variables (the fashionable word
is now complex "analysis") which prepares the interested student for
further study in the theory of functions and which is also rich in ap-
plications. The book is written in Nehari's informal style which makes
enjoyable reading. Embodied in the compromise mentioned above
is naturally a sacrifice of generality in some of the basic definitions
and theorems, but enough is always given to present a good idea of
the general theory of analytic functions.

The chapter titles are: I. COMPLEX VARIABLES, II. ANALYTIC
FUNCTIONS, III. COMPLEX INTEGRATION, IV. APPLICATIONS OF
CAUCHY'S THEOREM, V. CONFORMAL MAPPING, VI. PHYSICAL APPLI-
CATIONS, VII. ADDITIONAL TOPICS. All of the material that one would
expect to find under each of the first six chapter headings is there.
There are, however, many little embellishments which make this
book especially good. From the very beginning, conjugate coordinates
are introduced and used to simplify proofs. There is a nice presenta-
tion of the extensions of the elementary functions to the complex
plane and their properties. An intuitive "scissors and paste" type of
explanation of Riemann surfaces is given. Although the Riemann
mapping theorem is stated without proof, the chapter on conformal
mapping is especially rich in material for an introductory course. The
section on the Schwarz-Christoffel formula is especially noteworthy.
The physical applications include boundary value problems, electro-
static fields, and two-dimensional fluid flows. The topics in the last
chapter are analytic continuation, the gamma and zeta functions,
the symmetry principle, and methods for determining the harmonic
conjugate using conjugate coordinates. The book is very richly en-
dowed with stimulating exercises, some of which will certainly chal-
lenge the students.

GEORGE SPRINGER