

The Slide Rule, Strohm & DeGroot 1939, 1948

From the Preface, “The purpose of this book is to present in a clear, concise manner the information required to enable the average person to learn how to use the slide rule for making calculations involving multiplication, division, proportion, finding powers and roots, and so on.” The reader is not assumed to have any particular mathematical background; after he has covered the basic operations as described above, he may pick and choose any further sections within chapters that correspond to his needs. The text was clearly intended, and is best suited, for self-study but its organization would allow it to be used in a classroom environment.

With regard to theory, the text states (p. 10), “The primary purpose of this text is to teach the use of the slide rule rather than the theory underlying its operation. Little attention is given to the reasons for performing the various operations in the manner indicated.” Nevertheless, a very brief explanation is given of the application of the properties of logarithms in performing multiplication and division. In most cases, a few exercise problems (with answers) of a purely numerical nature are provided following each tutorial section. No applied or word problems are used.

Both Mannheim/Polyphase and Log Log Duplex rules are discussed but the majority of the text deals with explanations most pertinent to the former types. Illustrations are provided of a generic Mannheim, a K&E 4053 Polyphase, a Richardson, a K&E 4070 Polyphase Duplex, a K&E 4080 Log Log Duplex Trig, and a Midget circular slide rule. The scale set discussed is in keeping with those rules. Little space (about five pages of text) is devoted to the uses of LL scales, although about seven pages of text are given the circular Midget.

There are no appendices or addenda. Neither is there an index although this lack is mitigated somewhat because the Table of Contents not only lists the principal subject areas discussed, but in many cases also includes a synopsis of the subjects treated.