

A Complete Slide Rule Manual, Young, 1973

In the Preface, the author says that the book "...is designed to enable anyone from senior (high) school to university to become a competent slide rule user... No special level of Mathematics or previous experience is required to follow this Manual...". The text is described as being "... ideal for self-instruction, for classroom use, and as a reference text."

The text does not dwell on the logarithmic basis of slide rule construction; in fact, very little is said about it. The approach taken in the book seems to focus almost exclusively on the 'hows' of the slide rule, rather than the 'whys'. Instructions on how to perform operations are crisp and concise, accompanied by many black & white photographs of slide rules showing exactly how the rule will look when the correct settings of the cursor and slide are made. The idea of using photographs to show the exact settings might seem to be a good one, but here it has suffered somewhat in implementation. First, the rules used are very complex, leading to visual pictures that are very 'busy' and a little distracting. Second, a lot of the photographs are very dark and show insufficient contrast. Third, the labeling system used in the photographs is cumbersome. It consists of large black arrows and black cardboard squares labeled with white letters which are placed in appropriate places on the rules before they are photographed. These labeling system elements are so large that they are often distracting and in some cases actually obscure parts of the rule necessary or useful to help orient the viewer to the desired settings.

The text contains over 1000 numerical problems (no applied problems) for which the answers are provided.

Photographs of Faber Castell rules, apparently exclusively, are used extensively (over 100 times) in the text. Some of the identifiable models include the 52/82 D-Stab, the 2/83N Novo Duplex, and the 163/81 Novo Mentor. The scale set employed in problems and exercises is extensive; about what one would expect from the rules mentioned above, and includes the W, LL, and P scales. Unfortunately, hyperbolic trig functions are only mentioned in an appendix and only in that they may be calculated by the traditional functions of e^x and e^{-x} . No mention is made of \sinh or \tanh scales even though both the models 2/84 and 2/84N have them.

The book contains an Appendix with several sections which deal very briefly with Hyperbolic Functions, Cursor lines, Reciprocals (using only the C, D, or W scales themselves), Addition and Subtraction (the \pm operation), Quadratic Equations, and the Sine Rule. There is a well organized three page index. The Table of Contents is very detailed, listing 101 different topics