

unique slide rules quick instructions

Introduction. The Unique Range of Slide Rules has been designed with a view to easy reading, and these notes cover the basic uses of the rules, and a few minutes' study with the rule in front of the reader will enable him to start feeling the benefit of time-saving in ordinary calculations which the slide rule gives.

Construction. There are only three main parts to any slide rule, the stock, or main part of the rule, the slide, and the cursor, that is the sliding device carrying an index line.

The following **Main Scales** are fitted to almost every rule in the range.

- A For multiplication and/or division, and for determining squares and square roots.

They are a pair of scales and are identical as are:

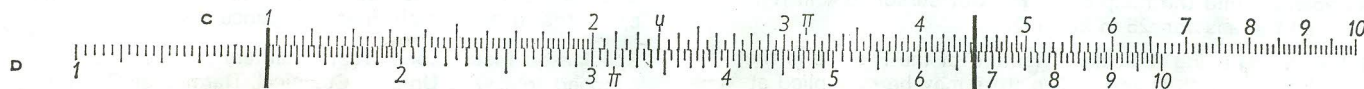
- C
- D

for multiplication and division with maximum accuracy.



Reading the Scales. Consider first the main scales C and D for these are the scales that most people use more often than any others. The scales are not "even" ones like those of a thermometer or an inch rule. Therefore the degree of subdivision between figures 1 and 2, 2 and 4 and 4 and 10 is not the same. On 10" length slide rules the first line to the right of 1 is 101—the first division following 2 however is not 201 but 202 and that following 4 is 405. On 5" length slide rules the degree of subdivision is naturally somewhat less. A good deal of extra accuracy can be obtained by the careful user who can estimate for instance

1672 as $2/10$ or $1/5$ the distance between 167 and 168, both these latter figures being marked as actual line on the rule, between 1.6 and 1.7. At this stage the user must realize that in using any slide rule a figure such as 1672 can be considered as .001672, 1.672, 16.72, etc., a slide rule will not determine the position of the decimal point for us. Sometimes the position of the decimal point will be obvious, sometimes mental arithmetic will have to be used. Once the user can read the scales of his slide rule, the rest is easy. Now see above and read the values off a.b.c.d. These are: a — 1.45, b — 2.2, c — 5.6, d — 7.5.



Multiplication. Can be accomplished on A and B or C and D scales, but we strongly advise using the C and D Scales, these give enhanced accuracy. All that is necessary is to find one number which is to be multiplied in Scale D, place the cursor over it, bring the 1 of scale C into coincidence and then read off the answer in scale D opposite the other figure to be multiplied in C.

Example (see above). To multiply 15×45 . Find 15 in scale D, move the cursor line over it, put 1 of scale C under the cursor line and opposite 45 in C, read the answer 675 in D. The reader will have noticed that it is not essential to use the cursor, but at this stage it is recommended to save "losing the place". In some cases when 1 of scale C is used the answer lies off the scale. In such a case the 10 of scale C must be used.



Example (see above). 2.1×5.5 . Find 2.1 in scale D, place right hand 10 against it (use cursor to do this if you like), opposite 5.5 in scale C read answer 11.55 in D, again use the cursor to read the result if you find this a convenience.

Multiplication can also be accomplished in scales A and B if desired, in above directions use A were D is mentioned and B where C is mentioned.

