

Accountant's and Business Slide Rule



Model No. 308

Instruction Leaflet

PRICE 3d.

The following scales are incorporated :

Scale C	}	For multiplication and division
Scale D		
Scale IL		For percentage uplift
Scale IR		For percentage discount
Scale LL1	}	For compound interest and other calculation where roots and powers are required
Scale LL2		
Scale LL3		
Scale M	}	Months, weeks and days for determining the intervals
Scale T		
Scale S		For decimalising shillings and pence in £1

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Academy Model 308 - Accountants

Instructions

It is generally conceded that a 10-in. slide rule will not give results more accurately than one in five or six hundred. Some claim that with extra care in manipulation and use of a magnifying glass results twice as accurate can be obtained.

Be that as it may, there are many calculations where an answer in three figures is adequate and in these cases the speed and versatility of a slide rule is of great value and regular users consider it indispensable.

Probably the prime role of a slide rule to students and qualified Accountants is to provide a quick rough check on results.

Here follows a description of the scales engraved on the face of a B.R.L. Model 308 slide rule.

SCALES C and D used for multiplication and division in decimals.

Example : What percentage is £237 of £5819 to two decimal places.

$$\text{i.e. } \frac{£237 \times 100}{5819}$$

To divide, place cursor over 237 on scale D and slide 5819 on scale C under hair line. Read 4.07% under right hand index of Scale C.

Example : What is gross income from £150 invested at 3¼% for 7 years.

$$\text{i.e. } \frac{£150 \times 3.75 \times 7}{100}$$

Slide left hand index (1) of scale C over 150 on scale D. Place cursor over 3.75 on Scale C. Slide right hand index of scale C under hair line. Place cursor over 7 on scale C and read 39.4, i.e. £39-8-0d. approximately, under the hair line on scale D.

SCALE S consists of two parts for instant conversion of shillings and pence into decimals of a £.

Example : Which is the better yield— $5\frac{1}{2}\%$ Prefs at $16/4\frac{1}{2}$ d. with tax at full rate of $8/6$ d. or $3\frac{1}{2}\%$ Building Society tax free ?
From scale S read that $16/4\frac{1}{2}$ d. is 0.818 of a £.

$$\text{i.e. } \frac{5.5\% \times 23}{.818 \quad 40}$$

Slide 818 on C over 55 on D. Place cursor over 23 on C. Slide 40 on C under hair line. Read 386 on D under right hand index (10) of C. That is the Prefs yield 3.86% as against $3\frac{1}{2}\%$ of the Building Society.

SCALES LL1, LL2, LL3 for compound interest computations.

Example : For how long must £650 be invested at $7\frac{1}{2}\%$ to increase to £1500.

The increase factor is $\frac{1500}{650}$ which with scales C and D is found to be 2.31. In these computations the percentage is divided by 100 and added to 1, thus $\left(\frac{7\frac{1}{2}}{100}\right) + 1 = 1.075$

Place the cursor over 1.075 on scale LL1. Slide the left hand index of C under the hair line. Now place the cursor over 2.31 on LL2 scale and read $11\frac{1}{2}$ years under the hair line on C.

SCALES M and T are used for determining the number of days between two dates or vice versa.

Example : Rate apportionment—what proportion of rates of £58 p.a. are payable between the dates March 21st and September 6th.

Slide index of T under March 21 on M and read 169 days under September 6 on T.

$$\text{Amount} = \frac{58 \times 169}{365}$$

Scales C and D show this to be approximately 26.85, i.e. £26-17-0d.

SCALES IR & IL. Percentage increase and decrease can be quickly estimated by use of the Red Figures at each end of the C scale.

Example : It is decided to write down a valuation of £217 by $17\frac{1}{2}\%$ what is its reduced value.

Slide right hand index of Scale C (marked 0%) over 217 on Scale D. Place cursor over $17\frac{1}{2}\%$ IR red figures. Read £179 on Scale D under hair line.

NOTE. If the required result is outside the scope of the D scale, the sum to be discounted can be mentally halved or doubled and the answers treated in the opposite way.

For uplift slide left hand index of C scale (marked 0%) over the sum. Place cursor over required uplift. Read answer under hair line on scale D.

Other useful fractions and gauge points are engraved on the slide for example $\frac{23}{40}$ and $\frac{17}{40}$ used while tax is at 8/6d. in the £.

If tax changes it is suggested owners inscribe new gauge points by setting on the rule a calculation with a known answer and inscribing a line in that position.

For example, in grossing amounts that have been taxed at 7/9d. in the £ a factor of $\frac{80}{49}$ is required. It is useful to engrave a gauge point on scale D so that when the index of scale C is aligned with it the grossed sum can be read on scale D under the appropriate figure on scale C.

If, for example, a gauge point at $\frac{80}{49} = 1.633$ is required proceed as follows :—

Slide 49 on scale C over 80 on scale D and using a set square engrave with a razor blade a line under 1.633 on scale D exactly under the 1 index on scale C.

This line can be filled with a red or blue pencil.