

**TABLE 1. Slide Rule Scale Symbols and Meanings**

Symbol	Mathematical Relationship	Range	Description	Function
A	$x^2$	1 - 100	2-cycle, Square of D, on stock	Find Squares & Square Roots
B	$x^2$	1 - 100	2-cycle, Square of C, on slide	Find Squares & Square Roots
AI	$1/x^2$	1 - 0.01	2-cycle, Reciprocal of A or 2-cycle, Reciprocal Square of D	Reciprocals, Chain Multiplication & Division
BI	$1/x^2$	1 - 0.01	2-cycle, Reciprocal of B or 2-cycle, Reciprocal Square of C	Reciprocals, Chain Multiplication & Division
C	$x$	1 - 10	1-cycle, Principal scale, on slide	Basic Multiplication & Division
D	$x$	1 - 10	1-cycle, Principal scale, on stock	Basic Multiplication & Division
CF	$\pi x$	3.1 - 31	1-cycle, Folded at $\pi$ or $\sqrt{10}$	Multiplies result by $\pi$
CI	$1/x$	1 - 0.1	1-cycle, Reciprocal of C	Reciprocals, Chain Multiplication & Division
CIF	$1/\pi x$	0.33 - 0.03	1-cycle, Folded at $\pi$ , Reciprocal of CF	Divides result by $\pi$
DF	$\pi x$	3.1 - 31	1-cycle, Folded at $\pi$ or $\sqrt{10}$	Multiplies result by $\pi$
DI	$1/x$	1 - 0.1	1-cycle, Reciprocal of D	Reciprocals, Chain Multiplication & Division
DIF	$1/\pi x$	0.33 - 0.03	1-cycle, Folded at $\pi$ , Reciprocal of DF	Divides result by $\pi$
K	$x^3$	1 - 1000	3-cycle, Cube of D	Find Cubes & Cube Roots
L	$\log_{10}(x)$	0 - 1	Linear scale	Mantissa of base10 logarithm of D
LL, Ln	$\ln(x)$	0 - 2.7	Natural logarithm of x	Raise D to any power or extract any root
LL0	$e^{0.001x}$	1.001 - 1.01	Exponent of $x \cdot 10^3$	Log Log scales
LL1	$e^{0.01x}$	1.01 - 1.11	Exponent of $x \cdot 10^2$	Log Log scales
LL2	$e^{0.1x}$	1.1 - 3.0	Exponent of $x \cdot 10^1$	Log Log scales
LL3	$e^x$	2.5 - 100,000	Exponent of x	Log Log scales
LL00	$e^{-0.001x}$	0.999 - 0.990	Exponent of $-x \cdot 10^3$	Reciprocal Log Log scales
LL01	$e^{-0.01x}$	0.99 - 0.90	Exponent of $-x \cdot 10^2$	Reciprocal Log Log scales
LL02	$e^{-0.1x}$	0.91 - 0.35	Exponent of $-x \cdot 10^1$	Reciprocal Log Log scales
LL03	$e^{-x}$	0.4 - 0.00001	Exponent of -x	Reciprocal Log Log scales
R1	$\sqrt{x}$	1 - 3.2	R1 is the square root of D	Double Length Square Root Scale
R2	$\sqrt{10x}$	3 - 10	R2 is the square root of 10D	Double Length Square Root Scale
P	$\sqrt{(1-(0.1x)^2)}$	0.996 - 0	Cosine of $\sin^{-1}(D)$	Pythagorean scale
S	$\sin^{-1}(x)$	5.8° - 90°	D is the sine of angle S	Trigonometric sine
T	$\tan^{-1}(x), \cot^{-1}(x)$	5.8° - 90°	D is the tangent/cotangent of angle T	Trigonometric tangent & cotangent
T1	$\tan^{-1}(x), \cot^{-1}(x)$	5°-49°/41°-85°	D is the tangent/cotangent of angle T	Trigonometric tangent & cotangent
T2	$\tan^{-1}(x), \cot^{-1}(x)$	41°-85°/5°-49°	D is the tangent/cotangent of angle T	Trigonometric tangent & cotangent
ST	$\sin^{-1}(x), \tan^{-1}(x)$	0.58° - 5.8°	D is the sin or tan of angle ST	Trigonometric sine or tangent for small angles
Ch	$\cosh^{-1}(x)$	0.1 - 3	D is the hyperbolic cosine of Ch	Hyperbolic Cosine
Th	$\tanh^{-1}(x)$	0.1 - 3	D is the hyperbolic tangent of Th	Hyperbolic Tangent
Sh1	$\sinh^{-1}(x)$	0.1 - 0.9	Hyperbolic sine of angle S	For small values
Sh2	$\sinh^{-1}(x)$	0.85 - 3	Hyperbolic sine of angle S	For larger values
H1	$\sqrt{(1+(0.1x)^2)}$	1.005 - 1.5	cosh of $\sinh^{-1}$ of 0.1D	Hypotenuse Scale
H2	$\sqrt{(1+x^2)}$	1.4 - 10	cosh of $\sinh^{-1}$ of D	Hypotenuse Scale
V	Volts	0.5 - 10	Voltage drop	For motors & generators
W	%	20 - 100	Efficiency	For motors & generators
§			Arbitrary symbol	For unlabeled scales with no standard symbol
in			Ruler in inches	Convenience
cm			Ruler in centimeters	Convenience