

File # 2-01.09Operation

$$\boxed{r = \ln_e b} \quad \text{OR} \quad \boxed{r = \log_{10} b}$$

Logarithm
~~Log (Polynomial App)~~

LNP

Use

a) Calling Linkage

L : 100 8 L+2 3ff 35f
 L+1: — 5 — — x
 L+2: 200 0]b[]r[β

{ 0 for $\ln_e$
 2 for $\log_{10}$

b) Adaptation Link Word

L+2: 01e]w[017 β

c) Storage

j = 30₁₀ words
 k = 23₁₀ orders
7₁₀ constants
3 opstos: 35d to 35f

Requirements and Performance

Floating point, poly approx.

a) Method of operation Rand approx p128

b) Additional routines required — None

c) Range and form of variable $1 \leq x \leq 10$, floating binaryd) Accuracy |Max error| = .0000, 0013 = 1×10^{-7}

e) Performance time .5 sec