WISC LIBRARY

File # 2.01.02

Operation — Exponential Routine

$r = e^b$

EXP

Use

a) Calling Linkage

L :	001	1	[L + 2]	[e12]	[35f]
L + 1:	—	5	[—]	[—]	[EXP 1]
L + 2:	—	0	] b [	] r [	[β]

b) Adaptation Link Word

L + 2: 35]W[32 β

c) Storage

j = 35 words

k = 32 orders

3 constants

6 opstos: 35a to 35f

Requirements and Performance

a) Method of operation Floating point.

b) Additional routines required FAIR

c) Range and form of variable b must be real and normalized ranging in positive or negative such that, $-176.75 = -255 \ln 2 \leq b < 255 \ln 2 = 176.25$.

d) Accuracy $\pm 3 \times 2^{-40}$ of the significant number.

e) Performance time Average: 1.553 x 80 seconds
Maximum: 1.933 x 80 seconds.