

*Program Name:* **exp1st**

*Language:* SAS

*Objective:* Determining the critical interval and the power of the UMP test for equivalence for the one-sample problem with exponentially distributed data

*Input:*

ALPHA	significance level
TOL	tolerance for the numerical approximation error
ITMAX	maximum number of iteration steps
N	sample size
EPS	positive constant determining the equivalence range [cf. p.55, (4.11a)]

*Output:*

ALPHA	value read from input file
TOL	" " " " " " "
ITMAX	" " " " " " "
N	" " " " " " "
EPS	" " " " " " "
IT	number of iteration steps carried out
C1	left-hand limit of the optimal critical interval
C2	right-hand " " " " " " " " " " " "
ERR1	effective difference between the rejection probability on the common boundary of the hypotheses and the target significance level ALPHA
POW0	power against the alternative $\sigma = 1$