

Program Name: **tt2st**

Language: SAS

Objective: Determining the critical interval and the power of the two-sample *t*-test for equivalence

Input:

ALPHA	significance level
TOL	tolerance for the numerical approximation error
ITMAX	maximum number of iteration steps
M	sample size in Group 1
N	" " " " " 2
EPS1	absolute value of the left-hand limit of the equivalence range for $(\mu_1 - \mu_2)/\sigma$
EPS1	right-hand limit of the equivalence range for $(\mu_1 - \mu_2)/\sigma$

Output:

ALPHA	value read from input file
M	" " " " " " "
N	" " " " " " "
EPS1	" " " " " " "
EPS2	" " " " " " "
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 at the left-hand boundary of the equivalence range and the target significance level ALPHA [= . <=> difference is computed to be smaller in absolute value than the smallest positive real number admitting a representation as a numeric constant in SAS]
ERR2	analogue to ERR1 referring to the right-hand boundary of the equivalence range [for the meaning of ERR2=. see explanation on ERR1]
POW0	power against the alternative THETA = 0 [<=> $\mu_1 - \mu_2 = 0$]