Program Name: **mwtie_fr**

Language: SAS

Objective: Generalized Mann-Whitney test for equivalence allowing for arbitrary patterns of ties, computation of the test statistic and its critical upper bound from grouped data

Input:

K	number of elements of the set of possible values of the observations making up the total sample†
ALPHA	significance level
M	sample size in Group 1
N	" " " " " 2
EPS1_	distance from 1/2 of the left-hand endpoint of the equivalence range for $\pi_+/(1-\pi_o) \equiv P[X_i>Y_j]/P[X_i\neq Y_j]$
EPS2_	distance from 1/2 of the right-hand endpoint of the equivalence range for $\pi_+/(1-\pi_o) \equiv P[X_i>Y_j]/P[X_i\neq Y_j]$
PATH	full pathname of the file containing the set of raw data

Output:

K	value read from input file
ALPHA	" " " " " " "
M	" " " " " " "
N	" " " " " " "
EPS1_	" " " " " " "
EPS2_	" " " " " " "
WXY_TIE	estimate of $\pi_+/(1-\pi_o) \equiv P[X_i>Y_j]/P[X_i\neq Y_j]$
SIGMAH	estimated standard error of WXY_TIE
CRIT	critical upper bound to the absolute value of the centred, standardized test statistic
REJ	indicator of the decision to be taken [REJ=1 <=> rejection of the null hypothesis of inequivalence; REJ=0 <=> acceptance of H]

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†*assumed to be given as a set of consecutive natural numbers [where necessary, the primary observations have to be recoded in a simple preprocessing step in order to attain this form]*