Syntax

`real matrix  logit(real matrix X)`
`real matrix  invlogit(real matrix X)`
`real matrix  cloglog(real matrix X)`
`real matrix  invcloglog(real matrix X)`

Description

`logit(X)` returns the log of the odds ratio of the elements of `X`, \( \ln\{x/(1-x)\} \).

`invlogit(X)` returns the inverse of the `logit()` of the elements of `X`, \( \exp(x)/(1+\exp(x)) \).

`cloglog(X)` returns the complementary log-log of the elements of `X`, \( \ln\{-\ln(1-x)\} \).

`invcloglog(X)` returns the elementwise inverse of `cloglog()` of the elements of `X`, \( 1-\exp\{-\exp(x)\} \).

Conformability

All functions return a matrix of the same dimension as input containing element-by-element calculated results.

Diagnostics

`logit(X)` and `cloglog(X)` return missing when \( x \leq 0 \) or \( x \geq 1 \).

Also see

[M-4] statistical — Statistical functions