designmatrix() — Design matrices

Syntax

\[ real \ matrix \ designmatrix(real\ colvector\ v) \]

Description

\[ designmatrix(v) \] returns a \[ \text{rows}(v) \times \text{colmax}(v) \] matrix with ones in the indicated columns and zero everywhere else.

Remarks and examples

\[ designmatrix((1\ 2\ 3)) \] is equal to \[ I(3) \], the \[ 3 \times 3 \] identity matrix.

Conformability

\[ designmatrix(v): \]
\[ v: \quad r \times 1 \]
\[ result: \quad r \times \text{colmax}(v) \quad (0 \times 0 \text{ if } r = 0) \]

Diagnostics

\[ designmatrix(v) \] aborts with error if any element of \[ v \] is \(<1\).

Also see

[M-4] standard — Functions to create standard matrices