**Syntax**

\[ \text{real scalar} \hspace{1em} \text{sizeof(transmorphic matrix } A) \]

**Description**

sizeof(A) returns the number of bytes consumed by A.

**Remarks and examples**

sizeof(A) returns the same number as shown by mata describe; see [M-3] mata describe.

A 500 \times 5 \text{ real matrix consumes} 20,000 \text{ bytes:}

\[
\begin{align*}
: \text{sizeof(mymatrix)} \\
20000
\end{align*}
\]

A 500 \times 5 \text{ view matrix, however, consumes only } 24 \text{ bytes:}

\[
\begin{align*}
: \text{sizeof(myview)} \\
24
\end{align*}
\]

To obtain the number of bytes consumed by a function, pass a dereferenced function pointer:

\[
\begin{align*}
: \text{sizeof(*&myfcn())} \\
320
\end{align*}
\]

**Conformability**

sizeof(A):

\[
A: \hspace{1em} r \times c \\
result: \hspace{1em} 1 \times 1
\]

**Diagnostics**

The number returned by sizeof(A) does not include any overhead, which usually amounts to 64 bytes, but can be less (as small as zero in the case of recently used scalars).

If A is a pointer matrix, the number returned reflects the amount of memory required to store A itself and does not include the memory consumed by its siblings.
Also see

[M-4] programming — Programming functions