## sizeof() — Number of bytes consumed by object

### Description

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

### Syntax

```
real scalar sizeof(transmorphic matrix A)
```

### Remarks and examples

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

A 500 × 5 real matrix consumes 20,000 bytes:

```
: sizeof(mymatrix)
20000
```

A 500 × 5 view matrix, however, consumes only 24 bytes:

```
: sizeof(myview)
24
```

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

```
: sizeof(*&myfcn())
320
```

### Conformability

```
sizeof(A):
  A:   r × c
  result:   1 × 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.
sizeof() — Number of bytes consumed by object

Also see

[M-4] Programming — Programming functions