**floatround() — Round to float precision**

### Description

`floatround(x)` returns `x` rounded to IEEE 4-byte real (float) precision. `floatround()` is the element-by-element equivalent of Stata’s `float()` function. The Mata function could not be named `float()` because the word `float` is reserved in Mata.

### Syntax

```
real matrix floatround(real matrix x)
```

### Remarks and examples

```
: printf(" %21x\n", .1)  
+1.999999999999aX-004
: printf(" %21x\n", floatround(.1))  
+1.99999a0000000X-004
```

### Conformability

`floatround(x)`:

- **x**: `r × c`
- **result**: `r × c`

### Diagnostics

`floatround(x)` returns missing (.) if `x < −1.fffffeX+7e` (approximately `−1.70141173319e+38`) or `x > 1.fffffeX+7e` (approximately `1.70141173319e+38`).

In contrast with most functions, `floatround(x)` returns the same kind of missing value as `x` if `x` contains missing; `. if x == .`, `.a if x == .a, .b if x == .b, . . . , and .z if x == .z.

### Also see

[M-4] Utility — Matrix utility functions