

## floatround() — Round to float precision

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## 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

[stata.com](#)

```

: printf(" %21x\n", .1)
+1.999999999999999aX-004
: printf(" %21x\n", floatround(.1))
+1.99999a0000000X-004

```

## Conformability

```

floatround(x):
   x:      r × c
result:     r × c

```

## Diagnostics

`floatround(x)` returns missing (.) if  $x < -1.ffffeX+7e$  (approximately  $-1.70141173319e+38$ ) or  $x > 1.ffffeX+7e$  (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