

NAME

trunc, truncf, trunc1 – round to integer, toward zero

SYNOPSIS

```
#include <math.h>
```

```
double trunc(double x);
```

```
float truncf(float x);
```

```
long double trunc1(long double x);
```

Link with `-lm`.

Feature Test Macro Requirements for glibc (see **feature_test_macros(7)**):

```
trunc(), truncf(), trunc1():
```

```
_ISOC99_SOURCE || _POSIX_C_SOURCE >= 200112L
```

DESCRIPTION

These functions round x to the nearest integer value that is not larger in magnitude than x .

RETURN VALUE

These functions return the rounded integer value, in floating format.

If x is integral, infinite, or NaN, x itself is returned.

ERRORS

No errors occur.

VERSIONS

These functions first appeared in glibc in version 2.1.

ATTRIBUTES

For an explanation of the terms used in this section, see **attributes(7)**.

Interface	Attribute	Value
trunc() , truncf() , trunc1()	Thread safety	MT-Safe

CONFORMING TO

C99, POSIX.1-2001, POSIX.1-2008.

NOTES

The integral value returned by these functions may be too large to store in an integer type (*int*, *long*, etc.). To avoid an overflow, which will produce undefined results, an application should perform a range check on the returned value before assigning it to an integer type.

SEE ALSO

ceil(3), **floor(3)**, **lrint(3)**, **nearbyint(3)**, **rint(3)**, **round(3)**

COLOPHON

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