

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 not larger in absolute value.

RETURN VALUE

These functions return the rounded integer value.

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

This page is part of release 4.10 of the Linux *man-pages* project. A description of the project, information about reporting bugs, and the latest version of this page, can be found at <https://www.kernel.org/doc/man-pages/>.