NAME

trunc, truncf, truncl − round to integer, toward zero

LIBRARY

Math library (*libm*, *−lm*)

SYNOPSIS

```
#include <math.h>

double trunc(double x);
float truncf(float x);
long double truncl(long double x);
```

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

trunc(), **truncf**(), **truncl**():
_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 were added in glibc 2.1.

ATTRIBUTES

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

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

STANDARDS

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)