

## Libreria limits.h

La libreria `limits.h` definisce un insieme di costanti che contengono i valori minimi e massimi per i tipi di dati utilizzati nel linguaggio C. Di seguito la tabella per i numeri senza virgola:

Constant	Value	Meaning
<code>SCHAR_MAX</code>	127	Maximum signed <b>char</b> value
<code>SCHAR_MIN</code>	-128	Minimum signed <b>char</b> value
<code>UCHAR_MAX</code>	255 (0xff)	Maximum <b>unsigned char</b> value
<code>CHAR_BIT</code>	8	Number of bits in a <b>char</b>
<code>USHRT_MAX</code>	65535 (0xffff)	Maximum <b>unsigned short</b> value
<code>SHRT_MAX</code>	32767	Maximum (signed) <b>short</b> value
<code>SHRT_MIN</code>	-32768	Minimum (signed) <b>short</b> value
<code>UINT_MAX</code>	4294967295 (0xffffffff)	Maximum <b>unsigned int</b> value
<code>ULONG_MAX</code>	4294967295 (0xffffffff)	Maximum <b>unsigned long</b> value
<code>INT_MAX</code>	2147483647	Maximum (signed) <b>int</b> value
<code>INT_MIN</code>	-2147483647-1	Minimum (signed) <b>int</b> value
<code>LONG_MAX</code>	2147483647	Maximum (signed) <b>long</b> value
<code>LONG_MIN</code>	-2147483647-1	Minimum (signed) <b>long</b> value
<code>CHAR_MAX</code>	127 (255 if /J option used)	Maximum <b>char</b> value
<code>CHAR_MIN</code>	-128 (0 if /J option used)	Minimum <b>char</b> value
<code>MB_LEN_MAX</code>	2	Maximum number of bytes in multibyte <b>char</b>
<code>_I64_MAX</code>	9223372036854775807	Maximum (signed) <b>__int64</b> value
<code>_I64_MIN</code>	-9223372036854775807-1	Minimum (signed) <b>__int64</b> value
<code>_UI64_MAX</code>	0xffffffffffffffff	Maximum (unsigned) <b>__int64</b> value

## Conversioni di tipo automatiche

Promozione automatica	da	...	a
	<code>char</code>	...	<code>int</code>
	<code>short int</code>	...	<code>int</code>
	<code>int</code>	...	<code>long int</code>
	<code>long int</code>	...	<code>double</code>
	<code>float</code>	...	<code>double</code>

Quella che segue è la tabella per i numeri con la virgola:

Constant	Value	Description
DBL_DIG	15	# of decimal digits of precision
DBL_EPSILON	2.2204460492503131e-016	Smallest such that 1.0+DBL_EPSILON !=1.0
DBL_MANT_DIG	53	# of bits in mantissa
DBL_MAX	1.7976931348623158e+308	Maximum value
DBL_MAX_10_EXP	308	Maximum decimal exponent
DBL_MAX_EXP	1024	Maximum binary exponent
DBL_MIN	2.2250738585072014e-308	Minimum positive value
DBL_MIN_10_EXP	(-307)	Minimum decimal exponent
DBL_MIN_EXP	(-1021)	Minimum binary exponent
_DBL_RADIX	2	Exponent radix
_DBL_ROUNDS	1	Addition rounding: near
FLT_DIG	6	Number of decimal digits of precision
FLT_EPSILON	1.192092896e-07F	Smallest such that 1.0+FLT_EPSILON !=1.0
FLT_MANT_DIG	24	Number of bits in mantissa
FLT_MAX	3.402823466e+38F	Maximum value
FLT_MAX_10_EXP	38	Maximum decimal exponent
FLT_MAX_EXP	128	Maximum binary exponent
FLT_MIN	1.175494351e-38F	Minimum positive value
FLT_MIN_10_EXP	(-37)	Minimum decimal exponent
FLT_MIN_EXP	(-125)	Minimum binary exponent
FLT_RADIX	2	Exponent radix
FLT_ROUNDS	1	Addition rounding: near

### Specificatori di formato

Tipo	scanf	printf
char	"%c"	"%c", "%d"
int	"%d"	"%d"
short int	"%hd"	"%hd", "%d"
long int	"%ld"	"%ld"
unsigned int	"%u", "%o", "%x"	"%u", "%o", "%x"
unsigned short int	"%hu"	"%hu"
unsigned long int	"%lu"	"%lu"
float	"%f"	"%f", "%g"
double	"%lf"	"%f", "%g"