

### Function Call

```
string.format(formatstring, ...args)
```

### Specifier

Input	Description	Example
g	Auto <sup>†</sup>	384.63
G	Auto (uppercase) <sup>†</sup>	386
d or i	Signed decimal	-392
u	Unsigned decimal	1483
f	Decimal float	392.65
o	Unsigned octal	610
x	Unsigned hex	7fa
X	Unsigned hex (uppercase)	7FA
a	Hex float	-0xc.90fep-2
A	Hex float (uppercase)	-0XC.90FEP-2
e	Scientific notation	3.9265e+2
E	Scientific notation (uppercase)	3.9265E+2
c	Character	d
s	String	Hello world
p	Pointer	b8000000
%	Literal "%"	%

Specifier determines the string format type.

<sup>†</sup>Auto chooses between the more reasonable of e or f.

### Q Specifier

The Q specifier does not support flags, width, or precision. It outputs Lua values so that it is valid Lua code.

Booleans are written obviously, `true`, `false`, `nil`.

Strings are written with double quotes and escape sequences where necessary.

For example, `string.format('%q', 'a string with " quotes " and \n new line')` produces:

```
"a string with \"quotes\" and \n new line"
```

### Reference

[Lua Manual](#)

[Wikipedia](#)

### Format Specifier

```
%[flags][width][.precision]specifier
```

Values are formatted and replaced sequentially with ...args.

Only one input can be entered for each argument.

Note the dot before precision.

### Flags

'	Group number by thousands.
-	Left justify, see <i>width</i> .
0	Pads with 0s instead of spaces, see <i>width</i> .
+	Adds a + sign for positive numbers.
(space)	Inserts a space if there is no sign.
#	For o, x, X: Add 0, 0x, 0X to non-zero numbers. For a, A, e, E, f, F, g, G: Always write a decimal point.

### Width

Minimum number of characters to be printed.

**If the value is shorter.**

The value is padded, affected by - and 0 flags.

**If the value is longer.**

No truncation happens, note *minimum*.

### Precision

**For d, i, o, u, x, X (integers)**

Minimum number of digits, no truncation happens. If the value is shorter, 0-padding happens on the left side. If set to zero, nothing is written for 0.

**For a, A, e, E, f, F (floats)**

Number of decimal digits to be printed. Defaults to 6.

**For g, G:**

Maximum number of significant digits.

**For s:**

Maximum number of characters to be printed. By default all characters are printed.

### Don't forget the dot!

If the period is specified without a value for precision, 0 is assumed.

