Cheatography

Lua string.format Cheat Sheet

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Function Call

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

Specifier

Input	Description	Example
g	Auto†	384.63
G	Auto (uppercase)†	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.

†Auto choses 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.fo rma t('%q', 'a string with " q uo tes " and \n new line')` produces:

```
"a string with \"qu ote s\" and \
  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 ***width***.
0	Pads with 0s instead of spaces, see ***width***.
+	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.