1. `plot()`

Package: `graphics`

◆ Purpose

Creates a scatterplot, line plot, or other types of base graphics plots depending on the type of input data. It is a generic function with methods for different data types (e.g., numeric, factor, formula).

◆ Function Header

```
plot(x, y = NULL, type = "p", main = NULL, sub = NULL, xlab = NULL, ylab = NULL,
     asp = NA, xlim = NULL, ylim = NULL, log = "", ...)
```

Parameter	Description	Accepted Values / Type
x	The coordinates or object to be plotted.	Numeric vector, formula, or object.
y	Optional y-coordinates.	Numeric vector or `NULL`.
type	Type of plot.	`"p"` (points), `"l"` (lines), `"b"` (both), `"c"` (lines without points), `"o"` (overplotted), `"h"` (histogram-like vertical lines), `"s"` (stair steps), `"S"` (other stair steps), `"n"` (no plotting).
main	Main title of the plot.	Character string
sub	Subtitle of the plot.	Character string
xlab, ylab	Axis labels.	Character string
asp	Aspect ratio.	`NA` (default), or numeric
xlim, ylim	Axis limits.	Numeric vector of length 2
log	Axis scaling (logarithmic).	`""`, `"x"`, `"y"`, `"xy"`
...	Additional graphical parameters.	See graphical parameters below

◆ Graphical Parameters (Selected)

Can be passed via `...`

Parameter	Purpose	Accepted Values
col	Color of plot elements.	Color names, hex codes, or numeric (e.g., `"red"`, `"#FF0000"`, `1`)
pch	Plotting symbol.	Integer or character (e.g., `1 – 25`, `"+"`, `"x"`)
lty	Line type.	`"solid"`, `"dashed"`, `"dotted"`, `"dotdash"`, `"longdash"`, `"twodash"`, or integers `0 – 6`
lwd	Line width.	Numeric
cex	Character expansion for symbols/text.	Numeric
bg	Background color for symbols with fill.	Color
xaxs, yaxs	Axis interval type.	`"r"` (regular), `"i"` (internal)
xaxt, yaxt	Axis drawing control.	`"s"` (standard), `"n"` (none)
frame.plot	Draw box around plot.	`TRUE`, `FALSE`