

Syntax for Plotting Text in R

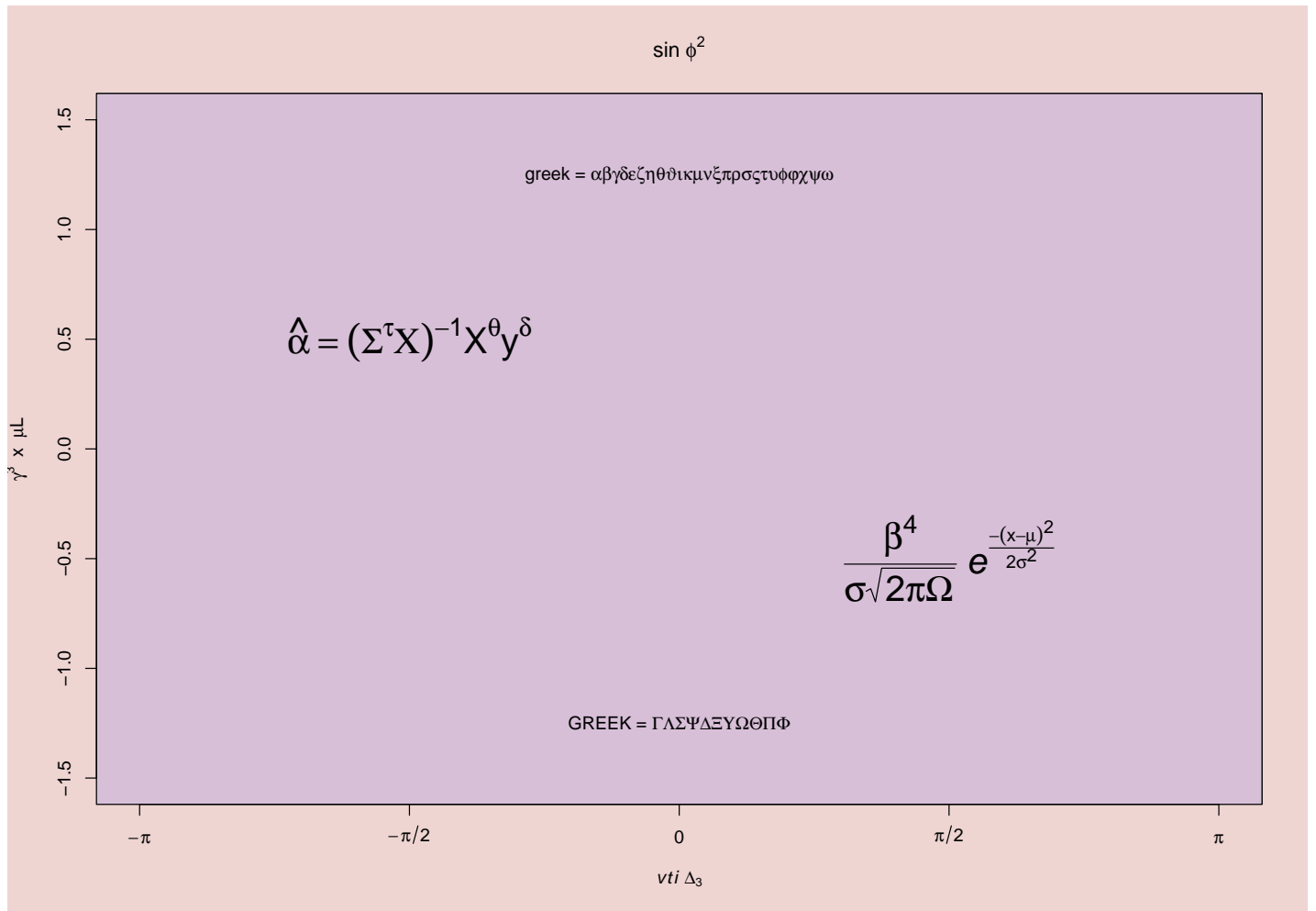


Figure 1: Syntax examples for plotting text in R for axes, labels, and titles.

```

function(f, h = 7, w = 10, s = 1.2) {
  pdf(file = f, height = h * s, width = w * s, useDingbats = FALSE,
      title = basename(f))
  par(bg = "mistyrose2")

  # Titles #
  main_name <- expression(paste(plain(sin), " ", phi^2))
  xlab_name <- expression(paste(italic(vti), " ", Delta[3]))
  ylab_name <- expression(gamma^3*" x " *mu*"L")

  # Make Plot #
  plot(0, 0, type = "n", xlab = xlab_name, ylab = ylab_name, main = main_name,
      xlim = c(-pi, pi), ylim = c(-1.5, 1.5), axes = FALSE)
  on.exit(dev.off())
  box()
  usr <- par("usr")
  rect(usr[1L], usr[3L], usr[2L], usr[4L], col = "thistle")

  # Axes #
  axis(1, at = c(-pi, -pi/2, 0, pi/2, pi),
      labels = expression(-pi, -pi/2, 0, pi/2, pi))
  axis(2)

  # Add Text #
  text(-pi/2, 0.5,
      expression(hat(alpha)==(Sigma^tau*Chi)^{-1} * X^theta * y^delta),
      cex = 2)
  text(pi/2, -0.5,
      expression(
        paste(frac(beta^4, sigma*sqrt(2*pi*Omega)), " ",
            italic(e)^{frac(-(x-mu)^2, 2*sigma^2)})),
      cex = 2
  )
  text(0, 1.25,
      expression(
        paste("greek = ", alpha*beta*gamma*delta*epsilon*zeta*eta*
            theta*vartheta*iota*kappa*mu*nu*xi*pi*rho*sigma*
            varsigma*tau*upsilon*phi*varphi*chi*psi*omega))
  )
  text(0, -1.25,
      expression(
        paste("GREEK = ", Gamma*Lambda*Sigma*Psi*Delta*Xi*
            Upsilon*Omega*Theta*Pi*Phi))
  )
}

```

Plotting Symbol, Line Type, & Color Codes in R

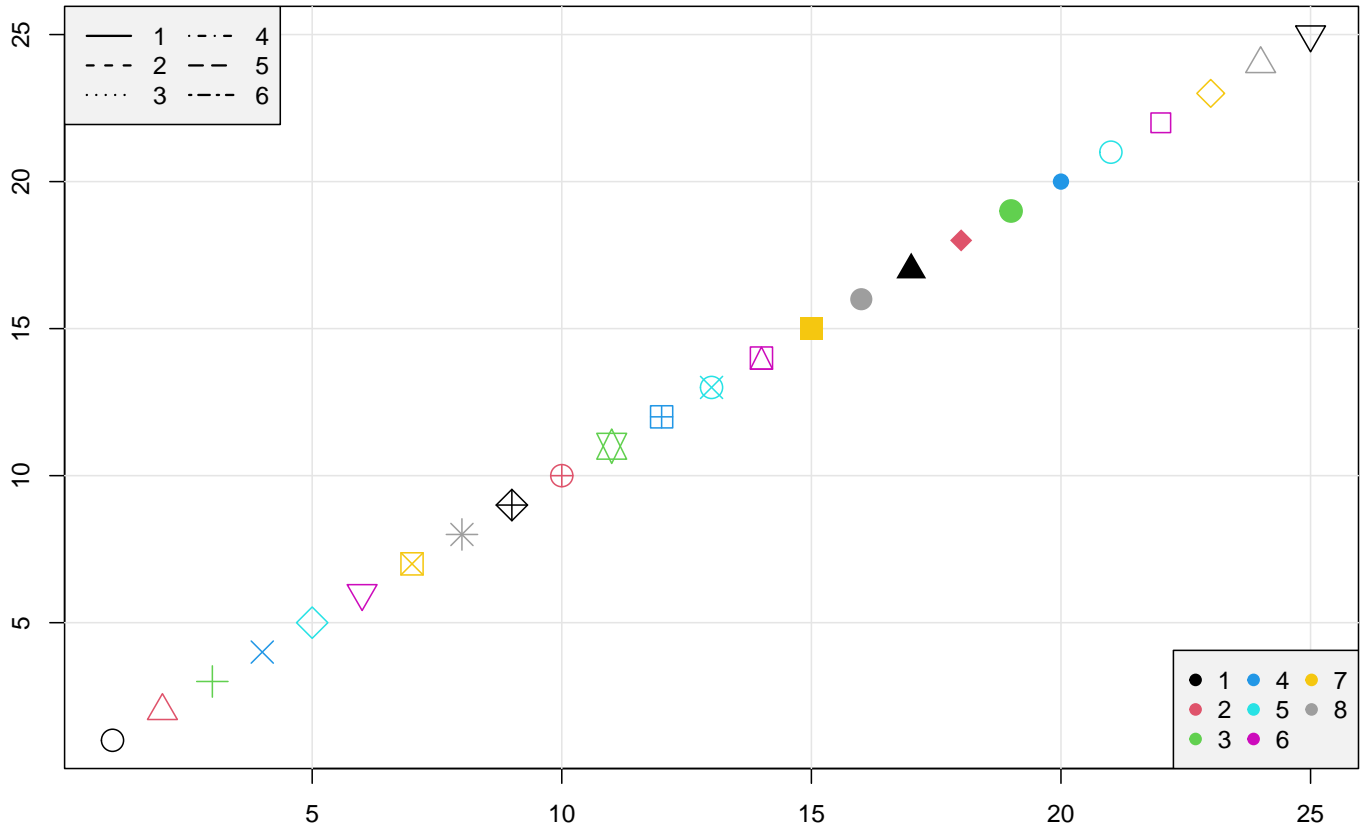


Figure 2: Basic numeric plotting codes used by R. For points, the symbols are accessed using the `pch=` and range 1 → 25 (some are redundant). Line types are shown in the legend, are accessed using the `lty=`, and range 1 → 6. Color codes range from 1 → 8 and are accessed using the `col=`.

```
function(f, h = 7, w = 10, s = 1) {
  pdf(file = f, height = h * s, width = w * s, useDingbats = FALSE,
      title = basename(f))
  on.exit(dev.off())
  b <- 25L
  for (i in 1:b) {
    if ( i == 1L ) {
      plot(i, i, ylim = c(1, b), xlim = c(1, b), xlab = "", ylab = "", type = "n")
      grid(lty = 1, col = "gray90")
      title("Plotting Symbol, Line Type, & Color Codes in R")
      legend("topleft", legend = 1:6, lty = 1:6, lwd = 1.5, ncol = 2, bg = "gray95")
      legend("bottomright", legend = 1:8, col = 1:8, ncol = 3, pch = 19, bg = "gray95")
    }
    points(i, i, pch = i, col = i, cex = 2)
  }
}
```