STAT 526 TERM 2 2002/3 Homework 2

Due Mon Feb 3

Fit a variable kernel density estimate to the Old Faithful eruption times data. The data set is available in Splus geyser$duration. Use a normal kernel, use any (sensible) estimate you want of $\tilde{f}$, and choose h^* by cross-validation.

To hand in:

Plots: $\tilde{f}$, your CV curve, your final density estimate, and any other plots that are relevant to your analysis.

Write-up: any calculations you must do (eg what is K^*K?), an explanation of what you've done (eg "$\tilde{f}$ is an estimate calculated by ... I've chosen h^* to minimize the CV function, shown in figure .... I used a final grid search with values of $h^* =$..."

Code: complete code, carefully commented so that I can easily read it. Don't forget to put in things like: x = input data, fhat = output vector