36-401 Homework #8 Due December 6, 2001

1. RWG, pp. 284–285. The data set is ”streams.dat” on the course website.

   - Do problem #4, p. 285.
   - Print out the summary of the principal components analysis, and the listing of loadings with an appropriate cutoff. Turn these in, along with a paragraph describing what each tells you about the data.
   - Do problem #6, p. 285.

2. RWG, pp. 285–286. The data set is ”shetland.dat” on the course website. Do problem #7, parts b, c, d, e. For part (b), note that by default `factanal` in Splus produces factors after varimax rotation (if you want to see the unrotated factors and loadings, say `rotation="none"` as an argument to `factanal`. For part (d) use `"promax"` as the oblique rotation method. For part (e), Splus's `rotate()` function automatically gives you the correlation matrix; don't try to obtain this "by hand". See pp. 259–263 for guidance in interpreting the results of a rotation.