Stat 371-003, Homework #7 **Due 29 Oct 2008**

Homeworks are due in Wednesday lecture and will be returned the following week in the discussion section.

1. 9.17 (pg 370)
2. 9.30 (pgs 375-376)
3. 7.80 (pgs 296-297)
4. Use R and the data cited in problem **7.79 (pg 296)** to test for a difference in the average response between the two treatments by

   (a) A t test (with `t.test`)

   (b) A rank-sum test (with `wilcox.test`)

   (c) A permutation test (with `perm.test`).

   The data are available at the following

   `http://www.biostat.wisc.edu/%7Ekbroman/teaching/stat371/data_7-79.csv`

   The code for the function `perm.test` (for the permutation test) is at the following

   `http://www.biostat.wisc.edu/%7Ekbroman/teaching/stat371/permfunc.R`

5. For the data in problem **6.48 (pg 213)**, calculate a 95% interval for the probability of contracting an STD within six months after being part of a counseling program, using

   (a) The normal approximation (box on pg 208)

   (b) The function `binom.test` in R.