Assignment 8 Hand in on Monday October 23

## 1 NWNW4 Problems 6.1. 6.2, 6.3, 6.4, 6.18\*, 6.19, 6.21

in parts a and d, use any diagram that lets you inspect the distribution(s)... it doesn't have to be a stem-and leaf plot!
in part e, ignore two-factor interactions for now (we will discuss interactions later) in part g, a rough "eye-test" is sufficient.

dataset for 6.18/6.19/6.21 can be found in www.epi.mcgill.ca/hanley/c697/

Since variable names can be up to 8 characters long, please be more communicative in your choices than "Y X1 X2 X3". Using all 8 allowed need not cause undue wear and tear on your fingernails, especially if you use the "point and click" and "cut and paste" facilities in INSIGHT and the SAS Editor.

- 2 NWNW4 Exercises 6.22, 6.25, 6.27
- 3 With the data in 6.18, fit the "2-predictors" regression model 6.5 for  $X_2$  and  $X_3$ .

Show that one can arrive at the same fit by a sequence of "singlepredictor" regressions

e.g., (a) Y on  $X_2$  (b)  $X_3$  on  $X_2$  (c) Residual from (a)? (b)? on residual from (b)? (a)?.

cf. example in page 2 of "Notes re multiple regression from 607" under Resources / Session 3 of course 678 material.

Try to generalise this algorithm to a regression involving 3 predictors?