MTH 441A: Lab 7

P 1. Consider the Webster, Gunst, and Mason (WGM) data set given in Table 9.4 of Montgomery Book.

(a) Normalise the data set by subtracting the associated mean and dividing by the square root of $(n-1)\times$ the sample variance of each variables.

(b) Find the VIFs.

(c) Find the condition number.

(d) Find the eigen vectors and verify if it matches with the eigen vectors given in Table 9.6 of Montgomery Book.

P 2 . Find variance Decomposition Proportions for the WGM data and verify if it matches with the results reported in Table 9.7 of Montgomery Book.