Let  $Y_1, Y_2, \ldots, Y_n$  denote a random sample from a Poisson distribution with parameter  $\lambda$ . Show by conditioning that  $\sum_{i=1}^{n} Y_i$  is sufficient for  $\lambda$ . 9.39

Let  $Y_1, Y_2, \ldots, Y_n$  be a random sample from a normal distribution with mean  $\mu$  and variance 1. 9.64

- Show that the MVUE of  $\mu^2$  is  $\widehat{\mu^2} = \overline{Y}^2 1/n$ . Derive the variance of  $\widehat{\mu^2}$ .