Tilastollinen tietojenkäsittely
Exercise 7 (bonus)
11.12.2006

1-2. Investigate the power of some test for $H_0 : \mu = \mu_0$ by using simulation.

3-4. Calculate a Bootstrap estimate of μ and a corresponding 95% confidence intervall for the sample

$$0.13, -0.01, -0.01, 0.42, -0.02, 0.01, 0.09, 0.03, 0.04, 0.06, 0.12, 0.03.$$

5-6. Let $x_1, x_2, \ldots, x_{100}$ be a random sample from $N(0, 100)$. Approximate the variance of sample mean and median by using Bootstrap.

7-8. Consider *wtloss* data (Library MASS) when *Weight* is the dependent variable and *Days* is the explanatory variable. Calculate the Jackknife estimate and its 95% confidence intervall for the third degree polynomial coefficient in the regression model.