Tilastollinen tietojenkäsittely
Exercise 6
05.12.2006

1. Test the hypothesis $H_0 : \mu = 0$ ($H_\alpha : \mu > 0$) by using randomization test when the sample is

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

2. Using testing based on the normal distribution make a function, which calculates the sample size needed when $e = \mid \bar{x} - \mu \mid$, σ and α are given.

3-4. In *wtloss* data (Library MASS) find the appropriate degree of polynomial by using cross-validation when *Weight* is the dependent variable and *Days* is the explanatory variable.

5-7. The data *puut* (in the R-workspace of the same name) in course directory contain locations (x, y) of trees of a certain measured stand. Investigate if the measured trees are uniformly distributed around the measured area.