

Notes:

- This exercise uses the datafile TrainExer13 and requires a computer.
- The dataset TrainExer13 is available on the website.

Questions

Dataset TrainExer13 contains the winning times (W) of the Olympic 100-meter finals (for men) from 1948 to 2004. The calendar years 1948-2004 are transformed to games (G) 1-15 to simplify computations. A simple regression model for the trend in winning times is $W_i = \alpha + \beta G_i + \varepsilon_i$.

- Compute a and b , and determine the values of R^2 and s .
- Are you confident on the predictive ability of this model? Motivate your answer.
- What prediction do you get for 2008, 2012, and 2016? Compare your predictions with the actual winning times.