# Simple and Multiple Linear Regression in R

# (predicting prices of antique clocks)

This exercise uses file clocks.csv.

## Tasks to be performed:

Investigate whether the price of an antique clock depends on its age and/or number of bidders. Try answering the following questions using the clock’s dataset:

1. Find correlation coefficients between:
   1. Price and age.
   2. Price and number of bidders.
2. Visualise the dataset (plot price as a function of age)
   1. Find the regression equation for predicting price from age and draw the best fit line.
   2. Use the model to predict the price for a 120-year-old clock.
   3. Is your prediction reliable, what is the confidence level?
   4. What is the explanatory power of this model?
3. Visualise the dataset (plot price as a function of number of bidders)
   1. Find the regression equation for predicting price and draw the best fit line.
   2. Use the model to predict the price for a clock, which has 10 bidders.
   3. Is your prediction reliable, what is the confidence level?
   4. What is the explanatory power of this model?
4. Find the regression equation for predicting price from both age and number of bidders
   1. Use the model to predict the price for a 120-year-old clock, which has 10 bidders.
   2. Is your prediction reliable, what is the confidence level?
   3. What is the explanatory power of this model?