Exercise 2:
The Simple Linear Regression Model

Additional Assignment*: Food Expenditure

Open `food.wf1/.csv`. The file contains data on income and food expenditure from a random sample of 40 households. The data include the following variables:

Variables:

`FOOD_EXP`	food expenditure in $
`INCOME`	weekly income in 100$

a) Estimate the simple linear regression model ($y_i = \beta_1 + \beta_2 x_i + e_i$) with the dependent variable `FOOD_EXP` and the independent variable `INCOME`. Suppose that all standard assumptions hold.

b) Represent the regression line in the form of an equation and interpret the coefficients b_1 and b_2.

c) Predict expenditre on food of a household with weekly income of 1500$ using the regression model.

d) Rescale `INCOME` so that the weekly income is given in $. Repeat tasks *a)* to *c)*. Does your prediction change?