

## Solutions to Exercises from Chapter 14

- 1.1-. `lm(Y~X1)`.
- 1.2-. `lm(Y~X1-1)` or `lm(Y~0+X1)`.
- 1.3-. `lm(Y~X1+X2)`.
- 1.4-. `lm(Y~X1+X2+X1:X2)` or `lm(Y~X1*X2)`.
- 1.5-. `lm(Y~X1+I(X1^2)+I(X1^4))`.
- 1.6-. `anova(lm(Y~X1+X2), lm(Y~X1+X2+X3+X4))`.
- 1.7-. `residuals()`.
- 1.8-. `coefficients()`.
- 1.9-. The variable  $Z$  has to be introduced as a factor by means of the `factor()` command.
- 1.10-. `lm(Y~poly(X, 3))`.
- 1.11-. `add1()`.
- 1.12-. `drop1()`.