1. Re-do the analysis of the oats split-plot experiment shown on page 683 in R two different ways times using:

   (a) `lm()` and `anova()`.

   (b) `aov()`, `Error()` and `summary()`.

Each analysis should include the analysis of variance table created by R and corrected by you where necessary (please be clear what is R output and what are your corrections). Note that

- This example contains a new feature for us. The whole plots are arranged in blocks.

- All of the variables except Y must be changed into factors using the `as.factor()` function. For example:

  ```r
  data$BLOCK <- as.factor(data$BLOCK)
  ```

- `lm()` and `aov()` will not produce the total lines shown in table 19.4 and these are not required.

- If you store your `lm()` fit in `lm.out` and then type “summary(lm.out)” you will find that some of the coefficients in the model are not estimable. Do you know why?

2. Problem 2, Chapter 19